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Annual Report

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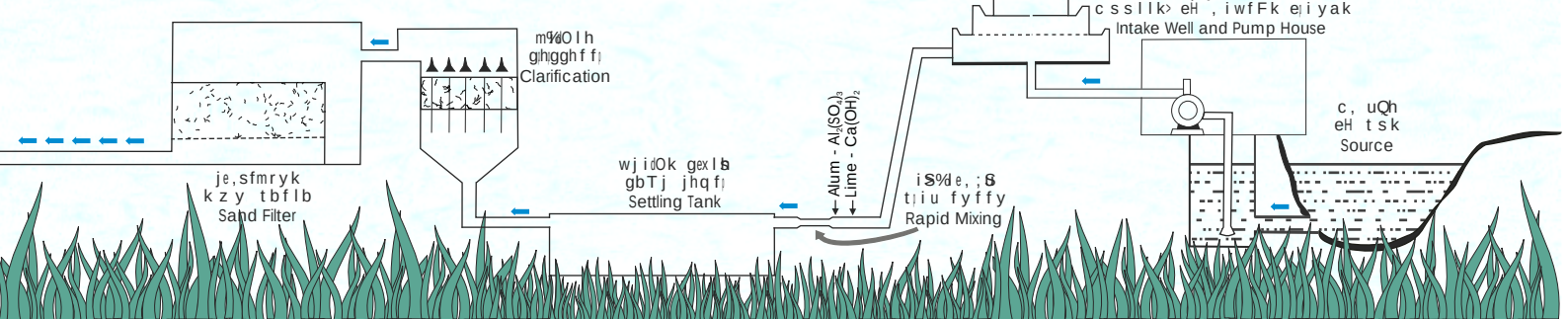
National Water Supply & Drainage Board



Vision

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

Mission

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

Goals

1. Increase the water supply and sanitation coverage
2. Improve operational efficiency
3. Achieve customer satisfaction
4. Increase commercial viability
5. Ensure greater accountability and transparency
6. Promote Institutional Development
7. Provide facilities and service support to rural and marginalized communities

NATIONAL WATER SUPPLY & DRAINAGE BOARD

The National Water Supply & Drainage Board had its beginnings as a sub department under the Public Works Department with responsibility for the water supply and drainage systems of Sri Lanka. From 1965, it functioned as a division under various ministries until January 1975 when it was converted to a Statutory Board by an Act of Parliament.

The National Water Supply & Drainage Board functions under the Ministry of Water Supply & Drainage. This Ministry was established in 2007 separately for the subject area of water supply & drainage. Also, the National Water Supply & Drainage Board is the only organization coming under the purview of this Ministry.

Around 78.0% of the population has safe access to drinking water of which 34.0% is through piped water supply systems of the National Water Supply & Drainage Board.

Notice of the Report

Hon. Minister of Water Supply & Drainage,
Ministry of Water Supply & Drainage,
Takahashi Building,
34, Narahenpita Road,
Nawala.

Dear Sir,

Annual Report and Financial Statements - 2008
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 31st December 2008.

Yours faithfully,

Channa Amarasinghe
Chairman
National Water Supply & Drainage Board

20th February 2009

Chairman's Statement

"The NWSDB contributed significantly towards improving the health, economic conditions, social well-being and livelihood of the people of the country"

The NWSDB continued to extend its services on water supply and sanitation during 2008. It contributed significantly towards improving the health, economic conditions, social well-being and livelihood of the people of the country.

With a view to proceeding with the actions under the Corporate Plan, it was possible to regularize some of our important policies and streamline procedures during the year. In order to provide a better service, we have introduced a toll free call centre which is ready to handle consumer complaints 24 hours. This is in line with our vision of becoming the most prestigious utility organization in Sri Lanka.

Implementation of ongoing capital projects and preparation of new project proposals for local and foreign funding continued in 2008. Among these, it was possible to complete Greater Galle Water Supply Stage II with the assistance of Korea, Augmentation of Ambalangoda Water Supply Stage I and Ampara, Nawalapitiya and Koggala Water Supply with the assistance of Germany and Tangalle Water Supply with the assistance of UNICEF. Most noteworthy newly initiated projects were Kelani Right Bank Water Treatment Plant with the assistance of DANIDA, Water Supply to Colombo and suburbs with new water treatment plants at Ambatale and Negombo with the assistance of Spain, augmentation of Kirindi Oya Water Supply with the assistance of Austria and Negombo Water Supply Optimization with assistance from the Netherlands. I take this opportunity to thank our donor agencies and other financiers for their generous and continued assistance.

The existing organization structure was reviewed in detail, section by section with the assistance of a Human Resources Consultant. Norms were prepared to assess the staff requirement of certain categories and the structure was worked out with the objective of decentralized activities in the provinces. Accordingly, the activities of the Construction Division and the Ground Water Unit, hitherto handled by the Head Office were decentralized. Facilitation for Rural Water Supply was decentralized by the establishment of 12 District offices during this year. A preliminary discussion was held with the Department of Management Services regarding the proposed organization structure and cadre for 2009.

Planning and Design units are being set up in the Provincial offices in order to be able to carry out designs for small and medium scale water supply projects. By strengthening our designs capability, it is expected to be able to avoid or at least reduce "design & build" type of contracts in future.

We took up certain outstanding issues at the National Economic Council, Department of Public Utilities and the Department of National Planning during the year. Matters such as water sharing, water pollution, land acquisition, water supply through Public Stand Posts, budget allocation for capital works, road widening and resulting effects on utility lines were taken up and are being closely followed up.

The draft policies for drinking water and sanitation were finalized and published inviting public comments.

Internally, a policy for vehicle allocation to various divisions was formulated. Work on the formulation of the Human Resources Policy was initiated. With the help of external expertise, the procedure for disciplinary action was finalised and approved for implementation. The procedure to initiate new water supply and sewerage projects and appraisal of such projects was laid down during this year. An orderly procedure for processing unsolicited proposals was also prepared, agreed upon and made known to all stakeholders.

The financial authority levels were reviewed internally and limits for financial delegation of authority was prepared and agreed upon.

The assets list has been compiled. Asset valuation was done with the assistance of the Valuation Department. The finalized list is being verified at present. Meanwhile, the NWSDB has appointed Asset Management Officers who will be responsible to update the assets register regularly and carry out an age analysis to take decisions for timely asset management.

The 1% reduction in NRW achieved over the year is not satisfactory. It is a matter of deep concern to us. NRW is being monitored scheme by scheme. Systems have been placed to monitor every known aspect contributing forwards NRW in water supplies Furthermore, there are 6,450 Public Stand Posts in the country. At the time water supply systems were taken over from Local Authorities most of these stand posts were inherited by us. Some Local Authorities do not pay for the water supplied through Public Stand Posts. The total arrears for water supplied through Public Stand Posts amounts to about Rs. 324 million. A special committee has been appointed by the Cabinet to look into this matter. Hopefully, it will be satisfactorily resolved in early 2009.

The energy crisis has affected the operations of the NWSDB significantly because water extraction, purification, pumping to elevated areas and the 24 hour administrative operations require a huge quantity of electricity. The NWSDB is dealing with the Sustainable Energy Authority for energy audit and power cost reduction programmes. At the same time, several pumping stations and water purification plants billed under commercial category by mistake are being converted to the less costly industrial category. This conversion is being done with both CEB and LECO. By this action we hope to reduce our power costs.

The financial situation of the NWSDB became very critical towards the middle of the year. Operating costs had escalated and it was not possible to pay full debt service component to the Treasury in December 2008. In order to avert further crisis, new tariff proposals were worked out, discussed with authorities concerned and approval sought. It will be implemented in early 2009. Hopefully, it will be possible to service our debts and loan repayments to the Treasury and after some time, the arrears of debt of service could also be settled.

It should be noted that this tariff increase is being proposed after a full four year period. We are of the opinion that it will be better, in the point of view of the consumer, if small annual tariff increases are levied instead of this. Such arrangement will have less impact on the consumer.

It was also possible to introduce a nominal service charge for the customers with sewerage facilities provided by the NWSDB in March 2008. As a coincidence, it took place in 2008, the International Year of Sanitation. It is however possible to recover only a small fraction of the NWSDB's operating costs for sewerage services through this levy.

A special word of thanks must be extended to the Hon. Minister for Water Supply & Drainage and the officers of the Ministry for their direction and guidance. Special thanks are also due to the General Manager and our staff for diligently attending to their work. No doubt, there would have been lapses on the part of the NWSDB in providing water supply and sewerage services. We request our customers to bear with us while we endeavor to improve our services.

Channa Amarasinghe
Chairman
National Water Supply & Drainage Board

20th February 2009

"The NWSDB continued, working towards the achievement of the goals and objectives set out by the Plan. Special emphasis was given to formulating policy matters, setting procedures and planning items relating to the second year of the Corporate Plan 2007 - 2011 as a follow up from the first year"

Corporate Plan 2007 - 2011

IMPLEMENTATION STATUS

The year under review was the second year of our Corporate Plan 2007 - 2011. This Corporate Plan was prepared in September 2006 with assistance from the JBIC.

The NWSDB continued, working towards the achievement of the goals and objectives set out by the Plan. Special emphasis was given to formulating policy matters, setting procedures and planning items relating to the second year of the plan as a follow up from the first year.

It is required to have timely review for the successful achievement of the goals, objectives and the targets set. A workshop was held in February 2008 with the active participation of the managerial staff and other stakeholders to review the progress made on our Corporate Plan, at the end of the first year.

At this workshop, the Corporate Plan was reviewed to;

- Determine whether the objectives and actions were in line with the required strategic direction,
- Determine whether the objectives and actions were in line with the required strategic direction,
- Re-emphasize actions and activities,
- Streamline the progress monitoring procedure and
- Incorporate necessary amendments to the Corporate Plan and finalize Action Plans for 2008.

Quarterly progress on the Corporate Action Plans was presented to the Board by the manager accountable for every goal (there are seven such goals, each overseen by a designated Accountable Manager). Accordingly, first, second and third-quarter progress reports on the Corporate Action Plans were presented to the Directors at Board meetings held in 2008.

Action Plans for 2009 relating to the third year of the plan were complied and forwarded to the Board. It was also circulated among all sectional heads to carry on accordingly.

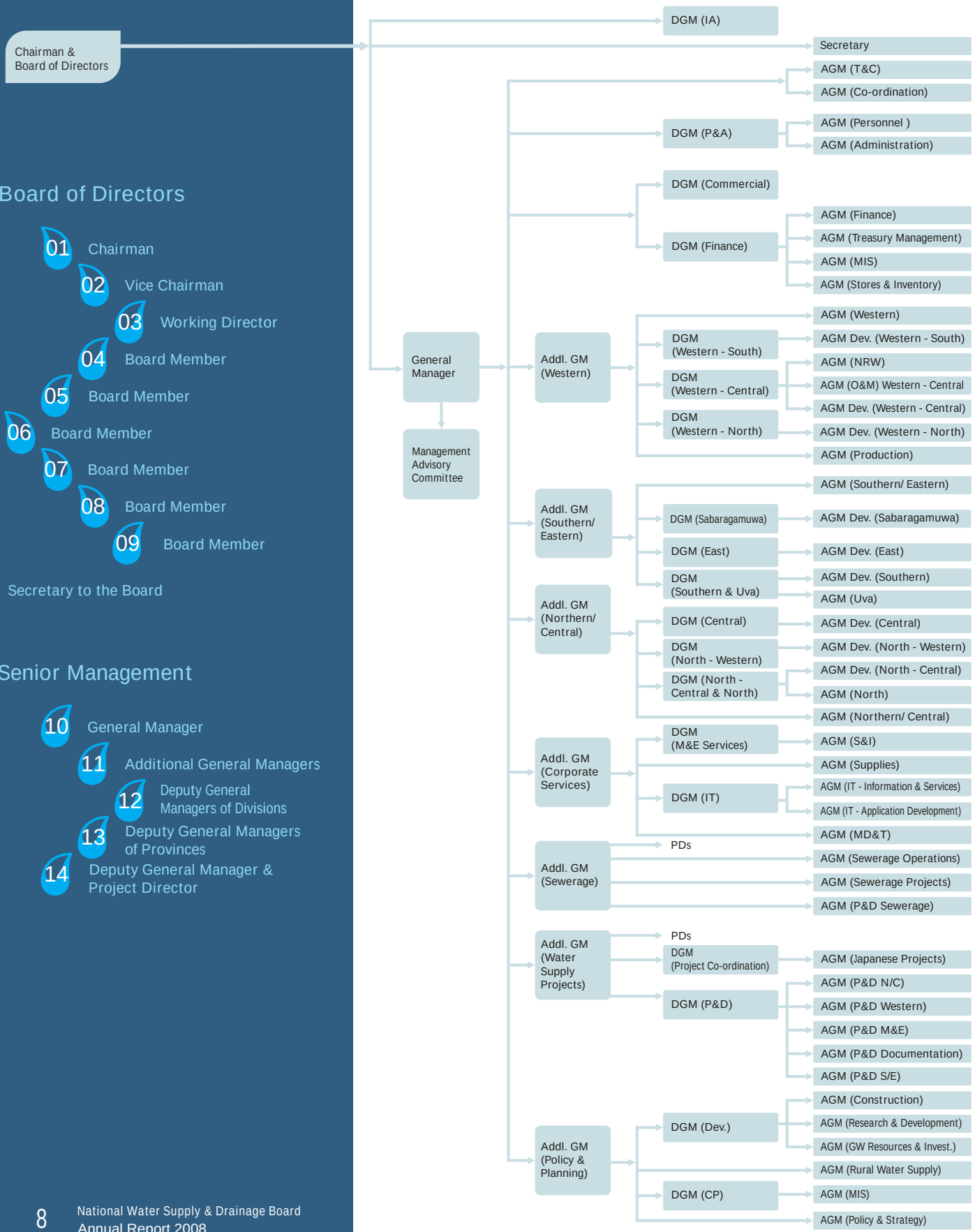
PROGRESS TOWARDS STATED GOALS

Goal	Key Objectives	Target end 2008	Achievement end 2008
1. Increase WS and sanitation coverage	1.1 Pipe-borne water supply coverage	33.9%	34.0%
	1.2 Piped sewerage coverage	2.6%	2.4%
	1.3 Access to safe drinking water supply coverage	77.6%	78.0%*
	1.4 Total sanitation coverage		85.7%*
2. Improve operational efficiency	2.1 NRW (island-wide)	33.0%	32.1%
	2.2 Total staff for 1,000 connections	7.8	7.6
	2.3 Expenditure on power to total recurrent cost	23.0%	24.3%
	2.4 Maintenance expenses to total recurrent cost	7.5%	4.1%
	2.5 Establishment expenses to total recurrent cost	10.5%	10.9%
3. Achieve customer satisfaction	3.1 Public awareness programmes to be carried out (schools/other)	30 Nos.	32 Nos.
	3.2 Complaints unresolved to total received	9%	7.3%
4. Increase commercial viability	4.1 % of estimated bills to total number of bills	10%	7%
	4.2 Collection efficiency	100%	99%
	4.3 Accounts receivable from -		
	(a) domestic and commercial institutions	60 days	60 days
	(b) Government institutions	60 days	65 days
5. Ensure greater accountability	Initiatives were taken to develop a whole range of management and business tools on human resource development, management information system and business plan.#		
	- Delegation of financial authority		
	- Training on budgetary control & financial regulations		
	- Audits on commercial operations		
	- Audits on stores and supplies		
	- Audits on cash/ cheque payments		
	- Audits on construction contracts		
	- Valuation of assets		
	- Improved Management Information and Coordination		
6. Promote Institutional Development	6.1 In-house training programmes	150	105
	6.2 In-country external training (no. of persons)	240	272
	6.3 Overseas training (no. of persons)	75	129
7. Provide facilities and service support to rural and marginalised communities	7.1 Rural water supply by the NWSDB (managed by CBOs)	4.5%	4%

* 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.

\# The Merchant Bank of Sri Lanka has been selected to prepare the Business Plan; The Terms of Reference for the assignment was prepared.

Our 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
08 Board Member
09 Board Member

Secretary to the Board

Senior Management

10 General Manager
11 Additional General Managers
12 Deputy General Managers of Divisions
13 Deputy General Managers of Provinces
14 Deputy General Manager & Project Director

BOARD OF DIRECTORS

01 Eng. S. C. Amarasinghe
B. Sc. Eng. Dip. Business Mgt., C.Eng.
FIET (Lond.), FIE (SL)
Chairman, NWSDB

02 Dr. A. Uthumalebbe
DIMS (Cey.), DFC (USA)
Vice Chairman, NWSDB

03 Eng. M. S. Nazeer
B. Sc. Eng. (SL), M.Sc. Eng. (UK)
Working Director, NWSDB

04 Mr. H. P. C. Herath
B.Sc. (Economics), MBA (Colombo)
Secretary, Ministry of Local Government & Provincial Councils

05 Dr. C. K. Shanmugarajah - up to 1st June 2008
MBBS, DFM
Director (Environmental Health, Occupational Health & Food Safety), Ministry of Healthcare & Nutrition

06 Mr. H. A. Amarasena
Attorney-at-Law

07 Mr. D. Widanagamachchi
B.Sc. (Business Admin.) Sri. J.
Pg. Diploma in Public Admin, PIM.S.J.
Director General (Department of State Accounts),
Ministry of Finance & Planning

08 Dr. (Mrs.) Damitha de Zoysa
B. A. Hons. (Economics), Peradeniya
M.Sc. (Agricultural Development Economics) ANU (Australia)
M.A. (Economics) OSU, USA,
Ph. D. (Agricultural Economics) OSU, USA
Director General (Department of Development Finance),
Ministry of Finance & Planning

09 Dr. P. G. Mahipala - from 5th August 2008
MBBS, M.Sc., MD, MBA
DBS, DED, DPM, D (Mgt.)
Deputy Director General
Ministry of Healthcare and Nutrition

SECRETARY TO THE BOARD

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

The Board met on 17 occasions during the year 2008.

SENIOR MANAGEMENT

10 GENERAL MANAGER

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

11 ADDITIONAL GENERAL MANAGERS

Eng. S. A. S. de Silva (Water Supply Projects)
B.Sc. (Eng.), DSE (Delft.), DBFA (ICASL), FIE (SL), MIRTE (Lond.), C.Eng.

Eng. A. H. C. Silva (Southern/ Eastern)
B.Sc. Eng. (Hon.), P.G. Dip. S.E. (Delft.), P.G. Dip. Const. Pro. Mgt., M.Sc. (Delft.), FIE (SL), MICE (Lond.), C.Eng.

Eng. H. G. Thilakaratne (Policy & Planning)
B.Sc. Eng. (Hon.), MBA, MIE (SL), C.Eng., MIM (SL)

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

Eng. B. W. R. Balasuriya (Northern/ Central)
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.)

Eng. (Mrs.) G. S. Munasinghe
(Corporate Services)
B.Sc. Hon. (Civil Eng.), Dip. in Sanit. Eng.,
Dip. in Bus. & Fin. Admin, FIE (SL), MICE (Lond.)

12. DEPUTY GENERAL MANAGERS OF DIVISIONS

Eng. D. S. D. Jayasiriwardana (Planning & Designs)
B.Sc. (Eng.) Hons., C.Eng., FIE (SL),
M.PH. (Univ. of Hawaii)

Eng. K. T. Karunadasa (Information Technology)
B.Sc. (Eng.), C.Eng., MIE (SL),
P.G. Dip. in Hydrology (Delft.),
P.G. Dip. in Computer Technology,
MS Certified Professional, M.Sc. (IT)

Eng. A. W. Gunasekara (Commercial)
B.Sc. Eng. (Hon.), M. Eng., C.Eng.,
MICE (Lond.), MBA

Eng. K. R. Dewasurendra (Project Co-ordination)
B.Sc. Eng. (Hon.), FIE, C.Eng.,
P.G. Dip. (Sanitary Eng. - Delft.)

Eng. G. K. Srimal (Logistics)
M.Sc. Mech. Eng. (USSR), M.E. Hyd. (India),
C. Eng. MIE (SL), Exe.
Dip. in Bus. Admin. (Colombo), Dip. in HRM

Mr. D. Thotawatte (Finance)
B. Com. (Sp.), ACA

Eng. D. N. J. Ferdinando (Development)
B.Sc. Eng. (Hon.), C.Eng., FIE (SL),
MCIWEM (UK), MICE (Lon.)

Eng. R. S. C. George (Corporate Planning)
B.Sc. Eng. (Hon.), C.Eng., MIE (SL),
M.Sc. (Eng.), FRG, MICE

Mr. H. Ariyasena (Personnel & Administration)
B.Sc. (Business Administration) Sp.
Dip. in Personnel Management

Mr. W. A. J. Weerasinghe (Internal Audit)

13. DEPUTY GENERAL MANAGERS OF PROVINCES

Eng. (Mrs.) P. N. S. Yapa (Western - Central)
B.Sc. (Eng.) MIE (SL), C.Eng.
M.Sc. (Struc. E.), UK

Eng. (Mrs.) M. K. Bandara (Western - North)
B.Sc. Eng. (Hon.), MIE (SL)
M.Eng. (Sc.) in Public Health Eng. (NSW), Australia

Eng. (Mrs.) T. P. Lamabadusuriya (Western - South)
B.Sc. Eng., FIE (SL), M.Sc. in Water & Waste Eng. (UK),
C.Eng.

Eng. D. U. Sumanasekara (North & North Central)
B.Sc. Eng. (Hon.) M.Sc. (Netherlands),
C.Eng., FIE (SL)

Eng. (Mrs.) K. T. P. Fernando (North Western)
B.Sc. Eng. (Hons.), MIE (SL), C.Eng.,
M.Sc. in Water & Waste Engineering in UK

Eng. J. R. B. Nadurana (Eastern)
B.Sc. Eng. (Hons.), P.G. Dip. in Envirnmental
Science & Technology (Delft.)
MIE (SL), C.Eng.

Eng. (Mrs.) C. J. D. Perera (Southern & Uva)
B.Sc. Eng. (Hons.), MIE (SL), Dip. Sanitary Eng.
(Netherlands), Dip. Eng. C.Eng.

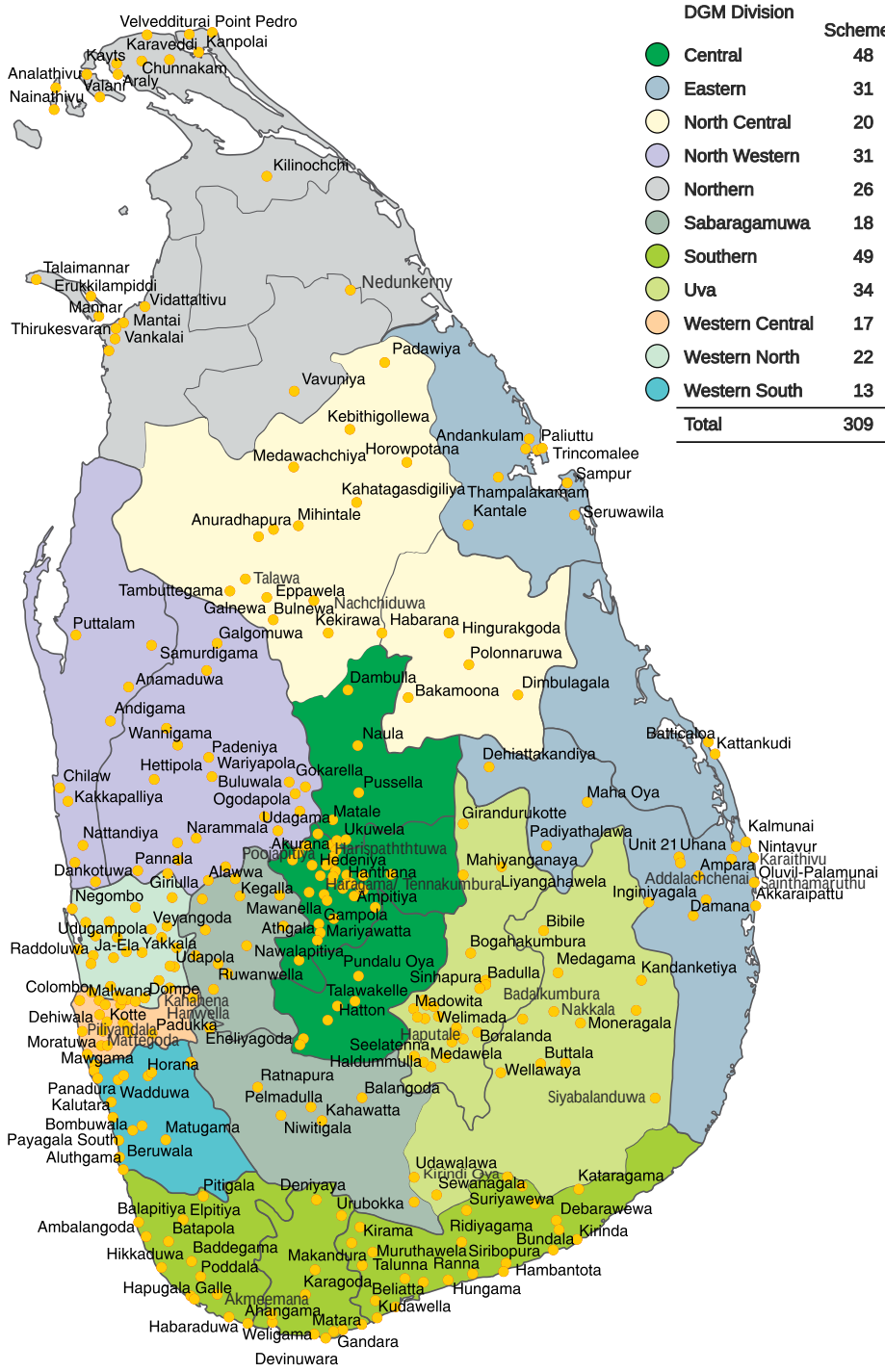
Eng. N. M. S. Kalinga (Sabaragamuwa)
B.Sc. Eng. (Hons.), MIE (SL), C.Eng.,
Dip. Sanitary Eng. (Netherlands)

Eng. M. A. M. S. L. Attanayake (Central)
B.Sc. (Eng.), MIE (SL), C.Eng.,
P.G. Dip. (Land & Water), MBA

14. DEPUTY GENERAL MANAGERS & PROJECT DIRECTOR

Eng. (Mrs.) P. R. L. Seneviratne (PD - WWDP - RM & JE)
B.Sc. (Eng.), MIE (SL), C.Eng.,
Dip. S.E. (Delft. - Netherlands)

DE-CENTRALIZED ADMINISTRATION



DGM Division	No. of Schemes	No. of Connections
Central	48	139,414
Eastern	31	74,942
North Central	20	50,026
North Western	31	32,684
Northern	26	5,435
Sabaragamuwa	18	62,340
Southern	49	172,663
Uva	34	49,157
Western Central	17	323,383
Western North	22	128,851
Western South	13	148,036
Total	309	1,186,931

Free Water Bodies from Pollution!

Water bodies should be free from pollution to simplify the purification process and thereby reduce cost of Water Supply services.

It Costs to Purify Water; Let's Use it With Care...

Our Performance

"Service levels to existing consumers were improved by commissioning several major and minor water supply projects in different parts of the country"

During 2008, the NWSDB focused on its new corporate action plans for the year, based on the Corporate Plan for 2007-2011. Quarterly progress on the activities was monitored and presented to the Board of Directors by the respective managers made accountable for the seven goals set out in the plan.

108,039 service connections were provided during the year, bringing the population that had been covered with piped drinking water supplies to 34%, indicating that the newly-fixed target for pipe-borne water supply had been almost achieved as in 2007.

Service levels to existing consumers were improved by commissioning several major and minor water supply projects in different parts of the country. The rehabilitation and reconstruction of tsunami-affected water supply projects also contributed towards these improvements.

Staff recruitments were kept under control, while the ratio of staff per thousand service connections was reduced to 7.59. The NWSDB was actively engaged in institutional development activities during 2008. Aspects of training, skills development, improving IT literacy, maintaining a friendly and work-oriented office environment and practicing 5S principles were continued under the Institutional Development Programme.

The finances of the NWSDB were carefully managed however, the debt service commitment for the year could not be fully met. Unexpected increase in operational expenses resulted in a deficit and therefore it was necessary to seek a tariff revision.

The facility to make consumer payments through the internet was further publicized and collection efficiency maintained at a very high level.

Non-revenue water (NRW) includes authorized but unbilled water supply to tenement gardens and public sanitary facilities. The NWSDB is compelled to continue this service, earlier provided by the CMC within the City of Colombo. If authorized but unbilled water supplies in Colombo City (estimated at 14% of the water supplied) are excluded, unaccounted for water in Colombo City would be 42.4%.

If the authorized but unbilled water supply in Colombo City is excluded, NRW in Western Province and nationwide would be 32.9% and 31.1% respectively.

General

There are 309 major, minor and small water supply schemes in operation under the NWSDB's purview. Out of these, 31 schemes cover major cities and 278 schemes cover townships and villages.

10% of the population is covered with hand-pumped tube wells. Community management is promoted with regard to rural water supply schemes through community-based organizations. Rainwater harvesting is considered an acceptable option as a drinking water source.

		2007	2008	Variation (%)
KEY STATISTICS: WATER SUPPLY				
No. of Water Supply Systems		308	309	0.3
Piped Water Production (million cu.m.)		424	440	3.3
Domestic Connections (Nos.)				
	(a) Western Province	516,537	546,675	(5.8)
	(b) Other Provinces	460,018	531,503	(15.5)
Total Domestic Connections		976,555	1,078,178	(10.4)
Public Stand Posts (Nos.)				
	(a) Western Province	3,667	3,511	(4.3)
	(b) Other Provinces	3,332	2,934	(11.9)
Total Public Stand Posts		6,999	6,445	(7.9)
Non-Domestic Connections (Nos.)				
	(a) Western Province	47,168	50,084	6.2
	(b) Other Provinces	48,170	52,224	8.4
Total Non-Domestic Connections		95,338	102,308	7.3
Total No. of Service Connections		1,078,892	1,186,931	10.0
Average Household Monthly Consumption				
(cu.m. per house connection)	(a) Western Province	18.07	17.84	(1.3)
	(b) Other Provinces	14.13	13.61	(3.7)
Average Household Billing per Month (Rs.)				
	(a) Western Province	385.97	388.28	0.6
	(b) Other Provinces	187.94	193.41	2.9
Total Revenue (Rs. million)		7,424	7,875	6.1
Total Recurrent Expenditure (Rs. million)		7,186	8,907	23.9
Non-Revenue Water (%)				
	(a) Western Province	36.02	35.20	(2.3)
	(b) Other Provinces	27.97[1]	27.18	(2.8)
	(c) Island-wide	33.09[1]	32.13	(2.9)
O&M Staff/ 1,000 Connections		6.41	6.11	(4.7)
Total Staff/ 1,000 Connections		8.20	7.59	(7.4)
Average O&M Cost of Water Production (Rs./cu.m.)		16.93	20.23	19.5
Collection Efficiency		1.00	0.99	(1.0)
Deep Wells (Nos.)	(a) Drilled	636	308	(51.6)
	(b) Successful	513	236	(54.0)
Development Expenditure (Rs. million)		21,088	25,361	16.9
KEY STATISTICS: SEWERAGE				
Sewerage Connections in Dehiwala-Mt. Lavinia Sewerage System		1,900	2,032	6.9
Sewerage Connections in Kolonnawa Sewerage System		950	1,009	6.2
Sewerage Connections for Institutions		7	7	-
Sewerage Connections in Housing Schemes in Greater Colombo		2,290	2,290	-
Sewerage Connections in Housing Schemes Outside Greater Colombo and maintained by Greater Colombo Sewerage Section		4,631	4,631	-
Total No. of Connections Maintained by Greater Colombo Sewerage Section		9,778	9,969	2.0

1. Though the consumption of the Panadura and Akkaraipattu Regions has been taken into consideration, their production figures have not been made available. Hence, the overall NRW figure shown is lower than the actual figure.

Summary of Operations

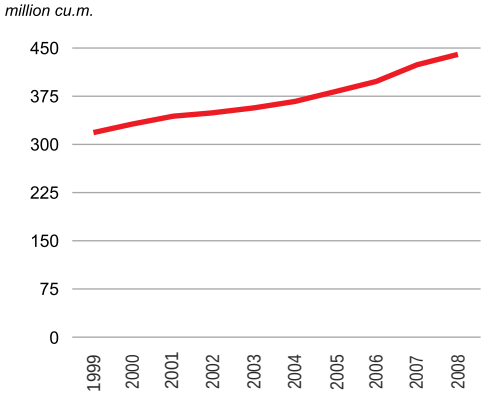
"The Western Province water supply system claims the major share of production through four centres at Ambatale, Labugama, Kalatuwawa and Kandana in Kalutara amounting to 61.7% of the total water produced by the NWSDB"

WATER SUPPLY

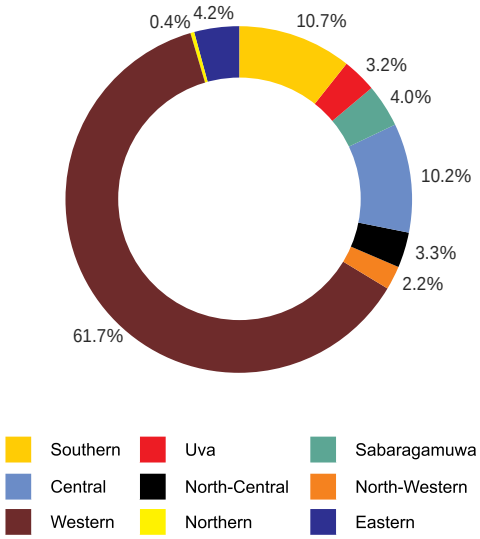
DRINKING WATER PRODUCTION

The total quantity of drinking water produced in 2008 was 440 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 61.7% 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

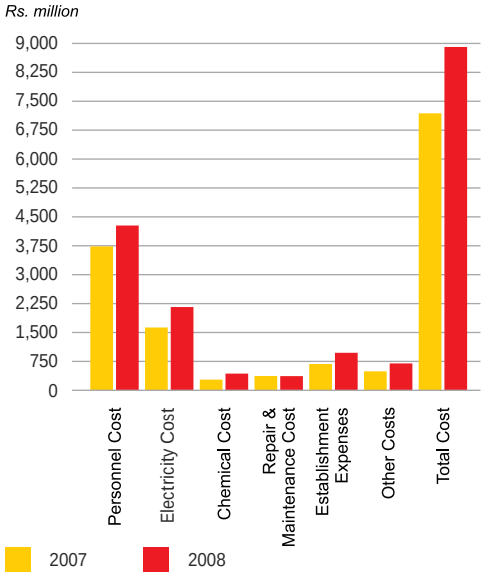


WATER PRODUCTION BY PROVINCES



Cost of Production:
Breakdown of the cost of production (Rs. million) in comparison with 2007 is shown below:

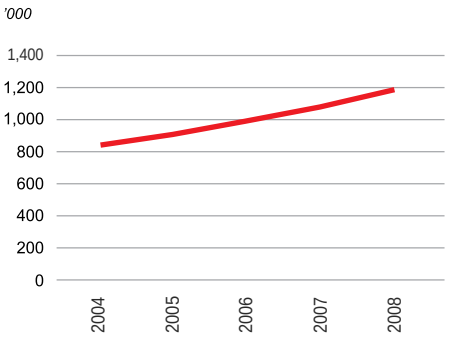
COST OF PRODUCTION



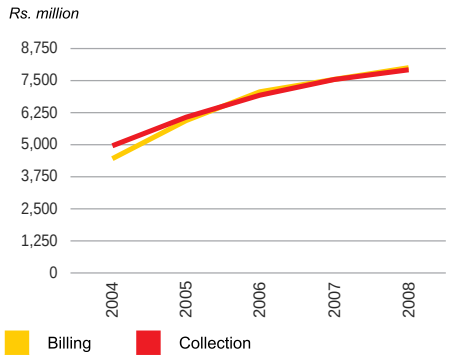
COMPARISON OF SERVICE CONNECTIONS

Province	No. of Connections Province-wise				No. of Connections Region-wise		
	As at end December 2007	As at end December 2008	Change %		As at end December 2007	As at end December 2008	Change %
Western Central	309,047	323,383	4.6	Priority	2,572	2,846	10.7
				Colombo City	116,642	120,504	3.3
				TEC North	115,344	120,334	4.3
				TEC South	66,238	79,699	20.3
Western - North	121,535	128,851	6.0	TNC	85,120	90,906	6.8
				Gampaha	34,677	37,945	9.4
Western - South	136,790	148,036	8.2	TSC	81,542	84,054	3.1
				Kalutara	37,284	40,501	8.6
				Panadura	17,964	23,481	30.7
Central	128,029	139,414	8.9	Kandy	128,029	139,414	8.9
North - Western	28,470	32,684	14.8	Kurunegala	28,470	32,684	14.8
North - Central	39,851	50,026	25.5	Anuradhapura	39,851	50,026	25.5
Sabaragamuwa	57,363	62,340	8.7	Ratnapura	57,363	62,340	8.7
Southern	153,549	172,663	12.4	Hambantota	51,849	59,286	14.3
				Matara	53,902	58,457	8.5
				Galle	47,798	54,920	14.9
Uva	44,178	49,157	11.3	Bandarawela	44,178	49,157	11.3
Northern	5,083	5,435	6.9	Jaffna	5,083	5,435	6.9
Eastern	54,997	74,942	36.3	Ampara	17,157	22,184	29.3
				Trincomalee	23,986	27,041	12.7
				Akkaraipattu	13,854	25,717	85.6
Total	1,078,892	1,186,931	10.0	Total	1,078,892	1,186,931	10.0

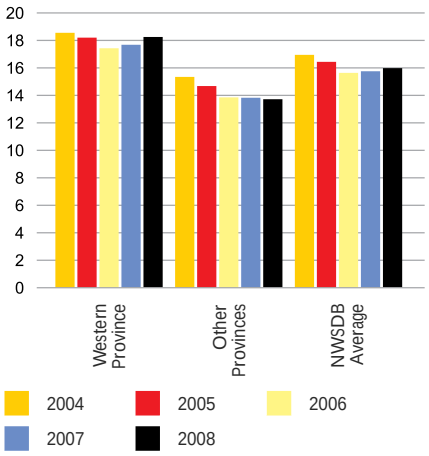
GROWTH OF CONSUMERS



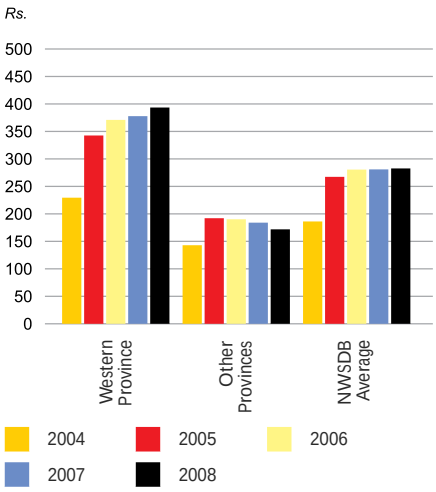
COMPARISON OF ANNUAL BILLING AND COLLECTION



AVERAGE HOUSEHOLD MONTHLY CONSUMPTION CU.M. PER CONNECTION



AVERAGE HOUSEHOLD MONTHLY BILL



BILLING STATISTICS

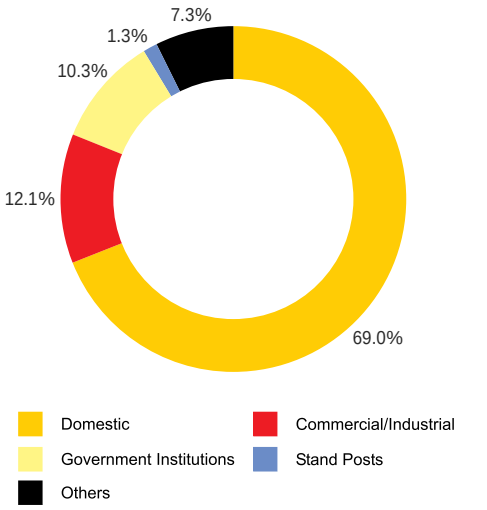
Description	2007	2008
Billing Target (Rs. million)	7,164	8,361
Actual Billing (Rs. million)	7,424	7,875
Collection Target (Rs. million)	7,933	8,361
Actual Collection (Rs. million)	7,418	7,791

QUANTITY OF WATER SOLD AND REVENUE BY CONSUMER CATEGORIES (2008)

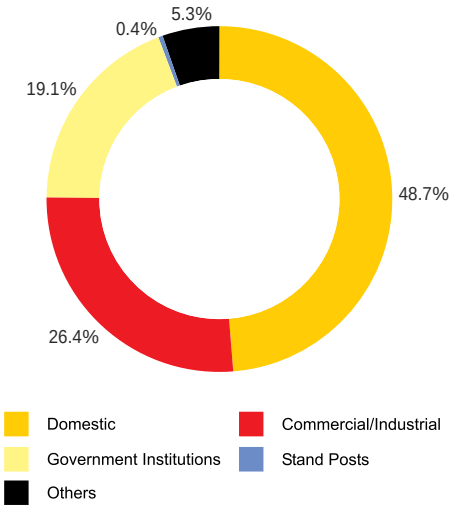
Consumer Category	Quantity sold cu.m '000s	%	Revenue Rs. million	%
Direct billing (domestic, NWSDB quarters, Government quarters)	196,016	65.1	3,679	46.7
Schools	3,666	1.2	18	0.2
Tenement gardens	10,990	3.7	163	2.1
Public stand-post supply	4,014	1.3	34	0.4
Government institutions, NWSDB premises	30,872	10.3	1,505	19.1
Commercial and industrial	28,704	9.5	1,709	21.7
Tourist hotels	2,008	0.7	116	1.5
Shipping	181	0.1	52	0.7
Board of Investment	7,575	2.5	366	4.6
Religious premises	3,725	1.2	38	0.5
Subtotal	287,751	95.6	7,680	97.5
Bulk billing	10,290	3.4	110	1.4
Others*	2,908	1.0	85	1.1
Grand Total	300,949	100.0	7,875	100.0

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

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 -

- the Dehiwala-Mt. Lavinia Municipal Council area;
- the Kolonnawa Urban Council area; and
- the sewage pump-houses and pumping mains of some NHDA housing schemes and several Government institutions within the Greater Colombo area.

There are about 180 employees attached to the Greater Colombo Sewerage Section. The total operational and management cost per annum amounts to Rs. 145 million. Income from institutions is Rs. 93 million approximately.

Dehiwala-Mt. Lavinia Sewerage Scheme
(address: 480, Roxy Garden, Wellawatte)
This system, constructed between 1980 and 1987, consists of two pumping stations and a 32 km long sewer network. It has been designed to accommodate 5,000 property connections. At present, the number of property connections stands at about 2,032.

Kolonnawa Sewerage Scheme
(address: 400, Avissawella Road, Wellampitiya)
This system, consisting of four pumping stations, was also constructed during 1980-1987. The sewer network is about 20 km long. The system is designed to accommodate about 3,900 property connections. At present, about 1,009 property connections exist.

Sewerage Systems in some Housing Schemes and Government Institutions
In addition to the above-mentioned major sewerage schemes, the NWSDB is also responsible for the provision of sewerage services at several large housing schemes built by the National Housing Development Authority within the Greater Colombo area, as well as some Government institutions outside the Colombo Municipal limits but within the Greater Colombo area.

(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. Jayawadanagama Hospital
7. Maligawatta Hospital

There are three waste water treatment plants, located at Seethawaka, Soysapura and Mattegoda. Effluent collected from all pumping stations in the Dehiwala-Mt. Lavinia and Kolonnawa sewerage schemes is disposed of via two sea outfalls, one at Wellawatte and at the other at Mutwal.

Purifying Water is Costly. Take Care to Conserve Water Usage.

Water purification requires energy, chemicals and expertise which are all costly. Water should not be wasted to avoid depletion of resources.

It Costs to Purify Water; Let's Use it With Care...

Water Supply

"Value of water supply works undertaken by the P&D Section in 2008 under GOSL and rechargeable projects amounted to Rs. 952.7 million and Rs. 281.0 million respectively"

GENERAL

Planning and Design Section

Works undertaken by this section were under GOSL projects, rechargeable projects and feasibility studies and design reviews of foreign-funded projects. Project reports, identification reports, pre-feasibility reports and feasibility reports were prepared, and design, final drawings and documentation works carried out for augmenting or rehabilitating existing works as well as for new works.

Value of water supply works undertaken by the P&D Section in 2008 under GOSL and rechargeable projects amounted to Rs. 952.7 million and Rs. 281.0 million respectively.

The work outputs in different subsections are given below. Details of water supply schemes carried out by Western, Souther/ Eastern and Northern/ Central subsections are given in the following pages under different headings depending on their funding arrangement and status of work.

Documentation (Subsection)

During the year 2008, this section has prepared Standard Bidding Documents for works contracts for minor works up to Rs. 5 million, and revised Standard Bidding Document (SBD) for supply of DI Pipes and fittings (foreign currency) and local currency, PVC pipes & fittings, bleaching powder, gun metal ferrules, supply & laying of pipes, etc. Also this section had partly completed standard bidding document for sewerage pumps and accessories. The Documentation Section also acts as the Secretariat for the Standard Tender Document Review Committee (STDRC) which was re-established in 2008 to review the tender documents, approve SBDs and to resolve the issues in procurement. The STDRC met 11 times in 2008 and many policy decisions regarding procurement were taken by the committee. Co-ordination with the STDRC was done and necessary approvals for the revisions were obtained. In addition, this section carried out revision of specification of all M&E equipment including pumps, DI Pipes and fittings, clamp saddles and ball cocks. Bidding document for implementation of public awareness programme was prepared based on ICTAD design and build document. Initiative actions was taken to revise the existing Planning and Design Manuals with the assistance of the DANIDA assisted Institutional Capacity Building Technical Assistance.

Quantity Surveying (Subsection)

During the year under review, this subsection completed, 78 Bills of Quantities (BOQ) for supply and laying of pipes,10 BOQs for water supply retaining structures, 06 BOQs for sewerage treatment plants and 14 BOQs for office buildings. In addition, rating of 140 BOQs, updating of NWSDB Rate Book for 2008, preparation of the same for

2009, preparation of new Rate Book for Sewerage Works for 2008 and collection of new prices from various suppliers to update Rate Book were also carried out. Other works include checking of extra work orders and variation orders, prepared by the RSCs incuding site inspections to obtain details for those variation orders, obtaining steel quantities for structures at Ampara district water supply scheme and Chico plant and field studies (work studies) at Kandy, Colombo, Baddegama and Hambantota for preparation of work norms.

Structural Designs

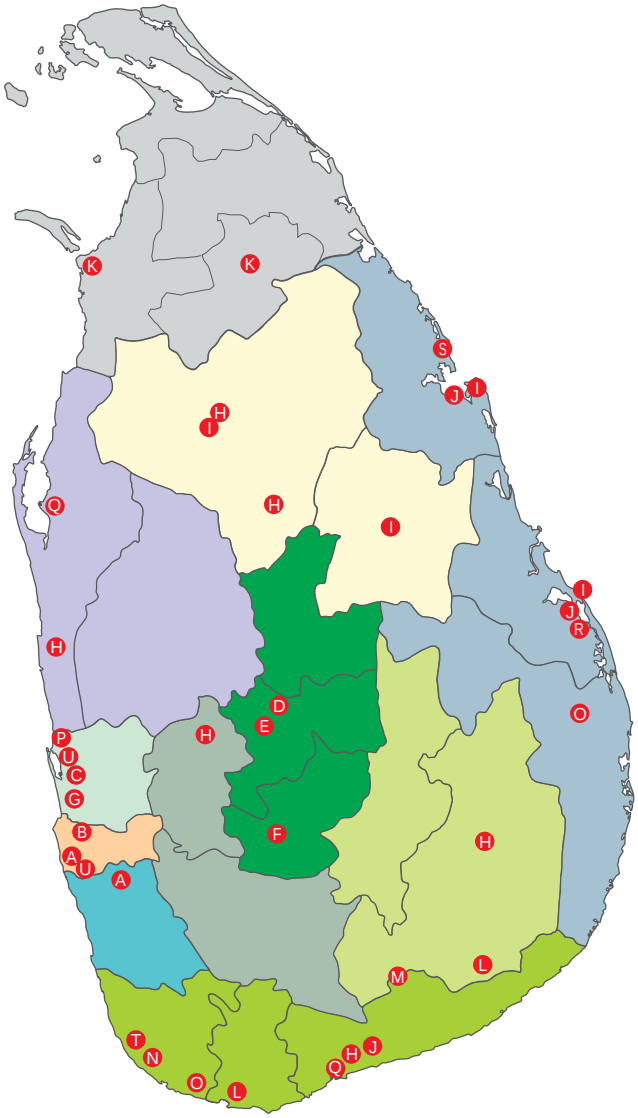
Structural designs related activities carried out included enumerating the differences between British Standard Code for structural designs and Institute for Construction Training And Development (ICTAD) specifications, re-design of the foundation of the elevated water tank of ADB 4th project, carrying out a full investigation and preparing a report on slab failure of rapid sand filter of KfW assisted Ampara water supply augmentation and extending the support service on design evaluations of Colombo sewerage (southern catchment) rehabilitation project.

Library and Information Centre

Library and Information Centre of NWSDB has developed over a period of time to become a very useful referece centre. The services provided include internal facilities and searches, inter-library loans, photocopy service, reference service, department database using PURWA software package and Compact Disk (CD) collection.

MAJOR WATER SUPPLY PROJECT ACCOMPLISHMENTS

LOCATION MAP OF FOREIGN-FUNDED PROJECTS UNDER CONSTRUCTION/AUGMENTATION DURING 2008



	Project	Funding Agency
A	Kaluganga WSP - Phase I, Stage I	JBIC
B	Colombo Water Rehabilitation Project	JBIC
C	Towns North of Colombo WSP - Stage II	JBIC
D	Greater Kandy WSP - Phase I, Stage II	JBIC
E	Towns South of Kandy WSP	DANIDA
F	Nuwara Eliya District Group Towns WSP	DANIDA
G	Kelani Right Bank WTP	DANIDA
H	ADB 3rd WS & Sanitation Project	ADB
I	ADB 4th WS & Sanitation Project	ADB
J	Tsunami Affected Area Rebuilding Project	ADB
K	ADB 5th WS & Sanitation Project	ADB
L	Implementation of Hambantota, Amabalntota, Weligama WSPs	Austrian
M	Kirindi Oya WSP	Austrian
N	Rehabilitation of WS Galle District	Germany
O	Aumentation of Ampara, Nawalapitiya and Koggala WSSs	Germany
P	Negombo WS and Optimization Project	Netherlands
Q	Tsunami Rehabilitation Project	UNICEF
R	Tsunami Rehabilitation Project	Red Cross
S	Greater Trincomalee Integrated WSP	French
T	Greater Galle WSP - Stage II	Korea
U	Water Treatment Facilities to Moratuwa/ Panadura, WTPs located at Ambatale and Negombo	Spanish

PROJECTS UNDERTAKEN WITH JBIC ASSISTANCE

1. Kalu Ganga Water Supply Project Phase I Stage I

This is a new project serving 500,000 people in Horana, Bandaragama, Panadura and Moratuwa. The project period is from March 2000 to August 2008, Water source is Kalu Ganga with full treatment and capacity 60,000 cu.m./day. Total cost estimate is Rs.12,000 million.

The objective of this project is to develop Kalu Ganga as a new water source to meet the increasing demand for water to Southern part of the Greater Colombo area and the lesser towns and areas within the Kalutara District.

Outputs of original scope of the project are;

- An intake and treatment plant of 60,000 cu.m./day capacity at Kandana and Horana
- 1,000 mm dia and 5.4 km long pumping main from WTP to high level reservoir at Horana Ellakanda
- 15,000 cu.m./day capacity reservoir at Horana Ellakanda
- Transmission pipeline (27 km long) from Horana up to Moratuwa in 800 mm to 1,200 mm, diameter
- Distribution improvements and new coverage in Moratuwa, Panadura, Bandaragama and Horana. Total length of distribution pipe pines laid in the above area was 194 km
- Supply of vehicles, machinery and miscellaneous equipment required for operation and maintenance

Present status is as follows;

- Original scope of project was completed in October 2006 except pipe laying in Horana and Bandaragama towns
- Project was commissioned in October 2006 and commenced supply of water to Moratuwa, Panadura and existing distribution area of Bandaragama and Horana since October 2006
- Additional works funded from savings completed at the end of 2008, except consultancy service for detail design of Kalu Ganga Water Supply Project Phase I Stage II (Progress 77%)

2. Greater Colombo Water Rehabilitation Project

This is a rehabilitation project. Benefitted by about 25,000 consumers and upgrading of the service level in Colombo area is expected with the completion of this project. The project period is from 2007 to 2011. Total cost estimate is Rs. 5,380 million.

With a view for achieving the Millennium Development Goals many capital projects are being implemented and this project is one of such major projects. The objective of the project is referred to the NWSDB's long term strategy for the Non Revenue Water Reduction Programme in Greater Colombo area. The project aims to rehabilitate and enhance the water supply system of CMC and Kotikawatta - Mulleriyawa area. The Project comprises of four packages.

i. Construction of Maligakanda new office building
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, Construction of Elli House new reservoir and Gothatuwa Tower.
iv. Water supply improvement to low income settlements providing 1,000 water connections for 8 - 10 tenement gardens in Colombo city.

Physical works of the project was yet to be started.

3. Towns North of Colombo Water Supply Project Stage II

This project is designed to extend water supply services to the northern part of the Greater Colombo. Under full implementation of the proposed project, the 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 by 2025. Stage I of this project was completed in November 2006.

Total cost estimate of the project for stage II is Rs. 4,869 million from the JBIC and Rs. 1,618 million from the GOSL. Procurement activities were going on at the end of 2008 and construction work will be commenced in 2009 as scheduled and completed by 2011.

4. Greater Kandy Water Supply Project Phase I Stage II

The objective of this project is to improve the service level for 194,400 people in the Greater Kandy, which includes the Kandy Municipal Council (KMC) area, Ampitiya, Rajapihilla, Kulugammana, Nugawela, Heerassagala, Meekanuwa, Mullepihilla, Elhena, Gohagoda, Kondadeniya and Thelambugahawatta. The total cost of this stage is Rs. 4,200 million. Design and tender documents are being prepared and contracts are planned to be awarded in 2009. It is expected to complete the project in 2012.

PROJECTS UNDERTAKEN WITH DANIDA ASSISTANCE

1. Towns South of Kandy Water Supply Project

This is mainly a new project including augmentation of existing facilities. The project period is from May 2006 to May 2009. Water sources are Mahaweli river, Paradeka stream and Ulapane Oya with full treatment except for intake wells at Mahaweli river bank at Elpitiya for which only disinfection is one to meet WHO and SLS standards. The effluent from the treatment plants will be directed to sludge treatment system, and then to natural paths. Total cost estimate is Rs. 9,626 million which is to be renewed with latest cabinet paper.

The project started by the main contractor MTHojgaard A/S from Denmark. All the project activities are handled by main contractor with the assistance of specialized local sub contractor for designs and foreign contractor for treatment plant design and construction. The local manpower, materials and equipments are used for project activities.

Intake at Meewathura

Total water production by this project is 53,000 cu.m./day with augmentation of existing systems to 11,000 cu.m./day and around 350,000 people will be served in the design year 2025 in Peradeniya, Pilimatalawa, Kadugannawa, Murutalawa, Danture, and Gampola, Ulapne, Welamboda.

New technologies like use of High Density Poly Ethylene pipes for water transmission, fully automation of the head works using SCADA system, provision of 19,000 service connections along with pipe laying such that consumers will immediately benefit upon commissioning of the scheme and also reduction of water wastage are main features of the project. Average physical and financial progress of the project at the end of 2008 were 73% and 57% respectively constants which affected the progress were; getting a local contractor for laying 63 mm diameter pipes, approval from appropriate authorities on time and non receival of treasury allocation on time.

2. Nuwaraeliya District Group Water Supply Project

The project was designed to provide safe drinking water to 96,000 (in 2025) people at six major towns named Rikillagaskada, Ginigathhena, Walapane - Nildandahinna, Maskeliya, Ragala and Hatton - Dikoya in Nuwaraelya District. Water sources are Mul Oya, Lonach stream, Kurundu Oya, Mahaneluwa Oya, Halgran Oya and Sanchimale Oya and treatment capacities are 4,000, 3,000, 3,000, 2,500, 1,500 and 4,000 cu.m./day respectively. Treatment process of all 6 WTPs are full treatment. Hatton WSS is an augmentation while other 5 WSSs are new. The project period is from 2006 to 2009. Toal cost estimate is Rs. 4,511 million. The physical progress at the end of 2008 was around 65%. Cabinet memorandum had not been approved to increase GOSL funds.

Ginigathhena Water Treatment Plant

3. Kelani Right Bank Water Treatment Plant

This is a high priority water supply project which was launched with an objective of improving water supply situation in Gampaha and Colombo Districts. It is intended to feed the distribution network laid under the Towns North of Colombo Project funded by JBIC. The project comprises a 40 MGD intake and a treatment plant of 40 MGD - capacity to be constructed on the right bank of the Kelani River at Ambatale. Total estimated cost is Rs. 8,100 million. Construction of raw water intake will be started early 2009 as scheduled. Project completion is expected in 2010.

PROJECTS UNDERTAKEN WITH ASIAN

DEVELOPMENT BANK ASSISTANCE

1. Third Water Supply and Sanitation Sector Project (ADB 3rd Project)

The above project started in 2000 was completed during 2008. Under this project Anuradhapura group water supply scheme and another six urban water supply schemes (Kalutara, Ranna, Kakkapalliya, Kegalle, Wellawaya and Kekirawa) were completely improved. The project also constructed 886 small scale water supply systems in 1,000 GN divisions in Hambantota, Kalutara, Puttalam, Monaragala, Kegalla and Anuradhapura districts on participatory approaches.

The facilities constructed are now operated and maintained by user communities. The total number of persons benefited through the project exceeds one million. The project cost was Rs. 13,582 million.

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

The project aims to provide safe water to 969,000 people and sanitation to 171,500 by 2025 in four urban centres (Batticaloa, Hambatota, Muttur and Polonnaruwa) and in the rural area of North Central province and to increase the capacity of GOSL to provide safe water by strengthening the water sector institutions.

Out of the project cost of US$ 175.2 million, ADB share is 70%, which is met through original loan and 02 supplementary loans. The scheduled project completion is in December 2010. There is a significant cost over run situation in the project and this need to be attended urgently.

Progress on Urban Water Component of the Project
Fourteen major contracts have been awarded by December 2008 out of a total of 16, and construction of two contracts in Batticaloa and Hambantota completed. One contract in Polonnaruwa just awarded and others were in progress at the end of 2008.

Urban Sanitation

6,000 latrines are programmed to be completed in Batticaloa, Hambantota, Polonnaruwa and Muttur. Out of which, 2,575 has already been completed, It has been decided to entertain requests for latrines only up to March 2009 with a view of completing this component in 2009

Progress on Rural Water Supply Components
Rural water supply and sanitation work is carried out in Anuradhapura and Polonnaruwa districts in 2 batches. Batch 1 covers 04 PS divisions in Anuradhapura district namely Rambewa, Mihintale, Ipalogama and Palagala and 03 PS divisions in Polonnaruwa namely Dimbulagala/ Welikanda, Medirigirya and Lankapura. Batch 02 work is carried out in Galnewa, Rajanganaya, Talawa and Nuwargampalatha East in Anuradhapura district and Elahara/Bakamuna, Hingurakgoda and Thamankaduwa in Polonnaruwa district. A small component in Unnichchai (Batticaloa district) is also included.

Water supply work under batch 1 is nearing completion, while the sanitation work under batch 1 is already completed. The water supply work on Batch 2 is in the initial stages and the sanitation work is progressing well.

Progress on Institutional Strengthening Component
The allocations for Institutional Development were rearranged based on present priorities. Present financial progress on this component is around 50%. ADB was notified about the need for changing the present proposal on National Public Awareness Campaign. The TOR for new proposal was sent to ADB.

Completed Well, Pump House & Office Building - Thalpotha

3. Tsunami Affected Area Rebuilding Project

This project includes new WSSs and rehabilitation as well as augmentation of existing WSSs. Project period from April 2005 to December 2009. Beneficiaries are 83,000, 73,325 and 5,393 in Hambantota, Batticaloa and Trincomalee (Muttur) districts respectively.

There are several sub projects in the three districts. Some of the schemes are small schemes and their main water sources are boreholes and dug wells. Other schemes are extensions of the existing schemes. Total cost estimate is US $ 10.1 million from ADB (grant) and US$ 2.2 million from GOSL.The objective of the project is to rapidly improve the living conditions and well-being of a significant number of people in the Tsunami affected area by restoring basic social infrastructure, community and public services and livelihoods. Out of 29 sub projects, 7 in Hambantota and 1 in Muttur were completed and 1 in Hambantota and 2 in Muttur were not started and others (18) were in progress with 45% overall physical progress at the end of 2008. Difficulties in finding reliable water sources in Batticaloa and Muttur is a constraints for this project.

4. Dry Zone Water Supply and Sanitation Project (ADB 5th Project)

NWSDB is in the process of formulating a project proposal for Water Supply & Sanitation improvements in North Western and Northern provinces of Sri Lanka. Under the above project Puttalam, Chillaw, Vavuniya and Mannar towns will be provided with enhanced water supply facilities and septage treatment facilities. The project will initially provide water to 206,000 people in above four towns. The project preparation has been completed and negotiations are being held with ADB for the proposed loan. The total cost of the project is Rs. 12,200 million and ADB will provide about 75% of project cost on grant / loan basis. Project period will be four and half years and it is expected to be commenced in early 2009.

Shallow wells in Muttur

PROJECTS UNDERTAKEN WITH AUSTRIAN ASSISTANCE

1. Implementation of Hambantota, Ambalantota, Weligama, Kataragama Water Supply Projects and Badulla-Bandarawela Integrated Feasibility Studies

This project is an augmentation started in November 2004. The main objective of this Austrian-funded project is the provision of 28,000 new connections and service level improvements to a population of 150,000, presently served by water supply in Hambantota, Ambalantota, Weligama and Kataragama. Water sources are Walawe Ganga, Polathumodara and Menik Ganga. Major activities are; the construction of new treatment plants having capacities of 5,000 cu.m./day for Weligama and Kataragama and 7,500 cu.m./day for Ambalantota.

Supply and laying of pumping main from Kataragama to Sella Kataragama had been identified as the extension for the original project under the funds from Austrian Govt. Improvement to existing distribution system for Sella Kataragama had also been identified under the funds from GOSL. Additional work identified for the project will be completed by June 2010. The total cost estimate for the project is Rs 2,126 million. Cabinet approval has to be obtained for the additional work identified.

Treatment plants for Weligama, Ambalantota and Kataragama had been commissioned. Supply and installation of generators for Weligama is ongoing. Additional work identified for Kataragama is under design stage. Physical and financial progress as at end of 2008 is about 75% and 77% respectively.

2. Kirindi Oya Water Supply Project

This is a rehabilitation and augmentation project of 2 years period serving 50,000 people in Lunugamvehera, Pannegamuwa, Weerawilla, Beralihela, Mattala and Devramvehera towns. Water source is Lunugamvehera irrigation tank with full treatment and capacity of 6,500 cu.m./day. Total cost estimate is Euro 10 million and Rs. 401 million funding from Austria and GOSL respectively. Kirindi Oya WSS was originally constructed for the settlers under the Kirindi Oya Irrigation project in 1989. The existing capacity of 5,900 cu.m./day is hardly enough to manage the present demand and the scheme is in need of rehabilitation and augmentation. M/S M-U-T GmbH, Austria is the contractor and the project is programmed to complete by mid April 2010. The project is under the design stage and the pipe laying work is programmed to commence at mid March 2009. 80 % of the design work has been completed.

PROJECTS UNDERTAKEN WITH KfW ASSISTANCE

1. Rehabilitation of Water Supply Galle District II

This project is an augmentation of water treatment facilities and expansion of water served area with a period from June 2006 to December 2009 (including phase I & II). About 195,000 people in PS areas of Balapitiya South, Ambalangoda, Hikkaduwa and Rathgama. Urban Council area of Ambalangoda are to be served. Water source is Ginganga tapped at Kiribathawila in Baddegama and water treatment capacity is augmented to 36,000 cu.m./day with conventional water treatment. The system will be comprised of aeration, coagulation/ flocculation, rectangular sedimentation basins fitted with tube settlers and Rapid sand filters. Presently the sludge and the filter backwash water are discharged into the abounded paddy field. However, after augmentation the filter backwash will be recovered and the resultant sludge is diverted into the drying beds. TCE is Rs. 4,202 million comprising of Rs. 3,393 million grant from KfW and Rs. 809 million from GOSL.

Following the Tsunami, the German Government provided a grant of Euro 22 million to the GOSL through KfW for immediate and medium term measures for water supply rehabilitation in Galle district, which comprised of two phases,

I. Phase-I Immediate measures and reconstruction (Euro 7 million agreed in January 2005),
ii. Phase-II Medium term measures by rehabilitation and extension of water treatment infrastructure in Baddegama and water transmission, storage and distribution networks (Euro 15 million agreed in July 2005).

The Project area extends along south-west coast from Kosgoda to Rathgama. All the work from water treatment upgrade in Baddegama to satisfy water demands in 2025 are not possible within the available funds. The present project priorities have been thus given for,

- Tsunami affected coastal zones and areas of salinity intrusion to shallow wells,
- Resettlement zones,
- Areas having potential for future growth.

The overall progress of the entire project is about 52% by the end of 2008.

2. Augmentation of Ampara, Nawalapitiya and Koggala Water Supply Schemes

Ampara

The Ampara existing water supply scheme is to be substantially augmented under this Project. A new water treatment plant is to be built at a site adjacent to Kondawatuwana tank and the Eastern Coastal Towns of Ampara District (ECTAD) water supply project. The Project period is 5 years. About 30,000 people in Ampara urban council area will benefit from this project. Water source is Kondawatuwana tank with full treatment and 6,500 cu.m./day capacity. Effluent is treated at Eastern Coastal Towns of Ampara District (ECTAD) project effluent treatment facility. Total cost estimate is Rs. 988 million. Treatment plant construction, all M&E and instrumentation work, construction of engineering quarters, extension of distribution system, rehabilitation of Gamunupura, Saddathissapura tower and yard piping were completed. Commissioning of treatment plant has to be done. Balance leak detection work has to be completed. Technical issues arised during the commissioning of filters are attended presently. Physical and Financial progress at the end of 2008 were 98% and 90% respectively.

Part of Ampara Water Treatment Plant

Nawalapitiya

The raw water is extracted from Hangaran Oya to produce and distribute 4,500 cu.m./day.

Intake of Nawalapitiya water supply scheme

The treatment process consists of upward flow

roughing filters, slow sand filters and chlorination for disinfection, intake, raw water main, treatment plant, clear water gravity and pumping mains. Pumping station, storage reservoirs and distribution system have been newly constructed. An office complex consisting of a consumer center and workshop and stores facilities are also constructed in the city center for the convenience of the consumers. The project period is 5 years. The total project cost is Rs. 1,151 million, which includes Euro 5.37 million as a soft loan through KfW and Rs. 480 million from GOSL. This water supply project will serve 22,000 people within the Nawalapitiya urban council area. The scheme was commissioned in December 2007. Delays in supply of filter media due to various environmental regulations for sand and pebble mining in rivers and strict regulations in transporting, affected the progress of work. Physical and financial progress at the end of 2008 were 99% and 86 % respectively.

Koggala

The Koggala project area is part of Habaraduwa PS area including Koggala Export Processing Zone (KgEPZ), Part of Habaraduwa township, Kathaluwa and Ahangama Townships. The estimated total population to be served in 2020 is 37,000 including 17,700 workers in KgEPZ. The total water demand is 7,300 cu.m./day. Water source is Gin Ganga through Greater Galle treatment plant. Original project proposal was to extract ground water from deep bore holes but due to lack of yield during investigations and protest from farmers in surrounding areas, it was decided to transmit treated water from Halloluwagoda ground reservoir, which was built as a part of Greater Galle WSP to the Project area. The contribution from German Government is Euro 2.8 million and Government of Sri Lanka contributes Rs 181 million. The total project cost is Rs. 531 million. The project period is 3 years. Physical and Financial Progress at the end of 2008 were 100% and 90% respectively. Project was commissioned on 19th January 2008 and completed works were handed over to regional NWSDB for operations on 27th May 2008.

PROJECT UNDERTAKEN WITH NETHERLANDS ASSISTANCE

Negombo Water Supply and Optimization Project

This project is a rehabilitation and augmentation of 3 years period. Water sources are Maha Oya and Kelani River with full treatment. Total cost estimate is Euro 36 million and Rs. 1,016 million from Netherlands and GOSL respectively. 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 areas is restricted daily 8.00 am to 3.00 pm because of inadequate water treatment and transmission infrastructure.

The objective of the project is to supply 24 hrs water and service availability to 100% of the population within the service area which includes Kochchikade and Duwa-Pitipana areas 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 12,500 cu.m./day capacity new water treatment plant in Bambukuliya, laying of a 600 mm dia 14.2 km long transmission main from JaEla to Negombo to transmit 21,000 cu.m./day treated water from proposed Kelani Right Bank plant, upgrading of existing pumping mains (6 km) to 350 mm DI, upgrading of electro mechanical equipments, 200 km long new distribution system and establishment of a modern water asset management system. Preliminary designs have been completed. Detailed design is in progress (40% completed). Physical work is scheduled to commence in March 2009.

Pipe bridge at Kathaluwa

PROJECTS UNDERTAKEN WITH UNICEF ASSISTANCE

Tsunami Rehabilitation Project

After the tsunami disaster UNICEF agreed to provide assistance for following major activities.

i. *New Water Supply Scheme for Thirukkovil*
A new water supply scheme constructed in Thirukkovil. This scheme will provide water for 30,000 people fulfilling a long felt need of the area. The cost of the scheme is Rs. 1,100 million. While UNICEF has agreed to provide Rs. 900 million as a grant Government of Sri Lanka will provide the balance. Construction activities are now going on and will be completed by May 2009.

ii. *Augmentation of Tangalle Water Supply Scheme*

Under the above project existing Tangalle and Beliatta water supply schemes were integrated and its capacity was improved from 6,500 cu.m./day to 15,000 cu.m./day. The cost of improvement was Rs. 1,000 million and Rs. 800 million was provided by UNICEF as a grant. The scheme will provide water to 52,000 people when running at full capacity. It was ceremonially declared opened by His Excellency the President on 29th August 2008.

iii. *Augmentation of Puttalam Water Supply Scheme*

Tangalle Water Supply Scheme

Existing Puttalam water supply scheme was improved to provide water to Internally Displaced Persons (IDP) living in the area. The cost of improvement is Rs. 180 million. UNICEF intended to provide water for 2,000 IDP through the project and this activity is now nearing completion.

PROJECTS UNDERTAKEN WITH RED CROSS ASSISTANCE

Tsunami Rehabilitation Project

After the tsunami, Sri Lanka Red Cross in association with International Federation of Red Cross Societies and Red Crescent Societies agreed to provide a series of assistance for the improvement in water and sanitation sector. At present number of projects are being implemented in Southern and Eastern provinces. They include expansion of distribution areas, improvements to treatment plants, replacing of corroded pipe lines, water supply to new settlement sites of tsunami victims etc. Some projects in Ampara district is yet to be commenced. A project for water supply to Point Pedro has been selected for implementation, but cannot be proceed due to the present security situation.

Total cost estimate for Red Cross assisted project is about Rs. 2,500 million out of which Rs. 400 million is already spent. Many projects are still going on and will be completed by the end of 2009.

PROJECT UNDERTAKEN WITH FRENCH ASSISTANCE

Greater Trincomalee Integrated Water Supply Project

This project is to rehabilitate and upgrade the existing Trincomalee water supply scheme and construction of new schemes at Pulmoddai and Eachchilampattu. About 330,000 people in Trincomalee town and gravets, Kantale, Thambalagamam, Kinniya, Kuchchaveli and Eachchilampattu DS divisions will benefit from this project. Total cost estimate is Rs. 4,200 million funding Euro 10.35 million from French Development Agency (AFD), Euro 10 million from French Ministry of Finance (RPE) and Rs. 1,003 million from GOSL. Water source is Mahaweli river with conventional treatment. The objective of this project is to increase the production capacity of the Kantalai water-treatment plant to 12 MGD and increase the service level in the entire Trincomalee integrated water supply scheme.

Project components include

- Construction of new intake and pump-house
- Laying a new raw-water main
- Laying a new transmission main
- Distribution system improvements
- Rehabilitation and augmentation of Kantalai WTP and service reservoirs
- Introduction of a SCADA system
- Construction of new WSSs at Pulmoddai and Echchilampattu

A consultancy firm was appointed in 2006. At present, procurement processes for works are ongoing. Physical work has yet to be started. It is expected to complete this project in 2011.

PROJECT UNDERTAKEN WITH KOREAN ASSISTANCE

Greater Galle Water Supply Project - Stage II

Under Greater Galle water supply project stage I, the intake, treatment plant and four ground reservoirs were constructed and it produces 32,000 cu.m. of treated water per day. To distribute this water it was essential to lay a new distribution system as well. Work under stage II is supply and laying of 391 km of distribution system in Akmeemana, Bope Poddala, part of Hikkaduwa and part of Habaraduwa PS Areas at a cost of Rs. 2,711 million. About 160,000 people will benefit from improved or entirely new water supply facilities provided from this project. This project was completed at the end of 2008 and distribution pipe lines have been handed over to the O&M section to provide house connections to consumers.

PROJECT UNDERTAKEN WITH SPANISH

ASSISTANCE

Water Treatment Facilities to Moratuwa/ Panadura, Treatment Plants located at Ambatale and Negombo

The Spanish Government extended a concessionary credit facility to the Government of Sri Lanka to finance reconstruction and rehabilitation of Public utilities destroyed due to the Tsunami. This fund is being used to construct water supply facilities to provide water to Tsunami affected communities in Moratuwa, Panadura and Negombo. The construction of a full treatment plant in Ambatale for a capacity of 50,000 cu.m./day to provide potable water for Moratuwa and Panadura and a construction of desalination plant of the capacity 3,000 cu.m./day for Negombo has been awarded to a Spanish company .
The project has commenced work in June 2008 after preliminary site visits and taking over of the sites in Ambatale and Negombo for the construction work.

The project is consisted of 80% of plant equipment imported from Spain and the treatment plants are prefabricated and assemble at site. About 90% of shipments were completed at the end of 2008. The design of Ambatale intake submitted for approval. The project is due to complete in 2009.

PROJECT UNDERTAKEN WITH USAID AND RED CROSS ASSISTANCE

Pottuvil - Ulla Water Supply Project

This is a new scheme with a WTP having 3,000 cu.m./day. The project period is from August 2007 to November 2009. TCE is Rs. 870 million. The project is to facilitate potable water about 15,000 Tsunami affected population in the Pottuvil and Ulla areas. There had been no water treatment plant and a supply network in this area. The water source is identified as 5 production bore hole wells in the banks of Hada Oya, a water stream flowing about 1.5 km towards Pottuvil from Ulla. The water quality reports showed that it is required to remove Iron and Manganese to desirable levels in order to supply water to the area.

The works consist of bore wells, raw water collection reservoir, low lift pumps (3,500 cu.m./day), raw water transmission main, Iron and Manganese removal plant, back wash facility, sludge drying beds, high lift pumps, transmission mains and water towers at Ulla and Pottuvil with distribution networks.

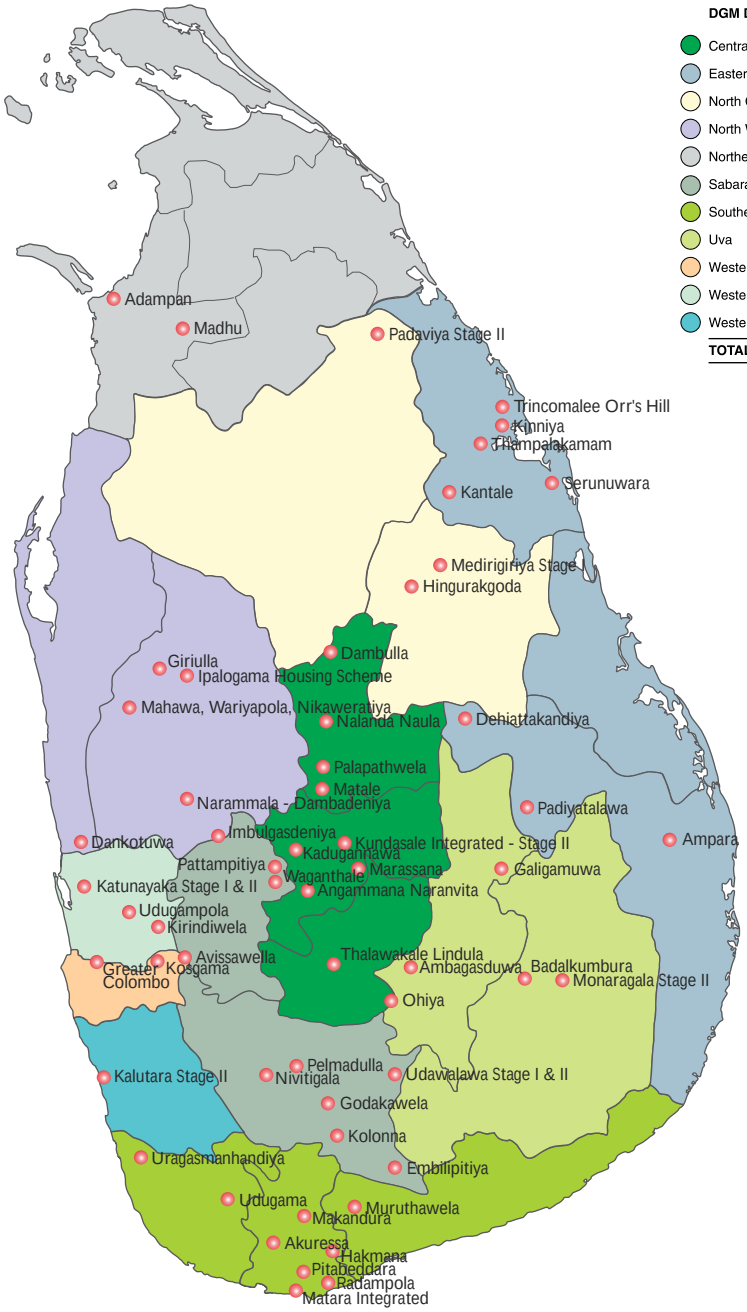
The Ulla WTP, water tower at Ulla and distribution network in Ulla WSS is completed and commissioned in November 2008. The Pottuvil water tower, transmission main from Ulla to Pottuvil water tower and the water distribution system in Pottuvil is under construction by the Red Cross. The work is expected to be completed by the November 2009.

The special treatment process new to NWSDB is adopted with continuous flushing of production wells to protect from Iron and Manganese depositing. The training of the O&M staff and close monitoring of proper operations are required to protect the water source. 75% of the project work was physically completed.

Ulla Treatment Plant

GOSL FUNDED SMALL AND MEDIUM SCALE WATER SUPPLY PROJECTS

LOCATION MAP OF PROJECTS UNDER CONSTRUCTION/AUGMENTATION DURING 2008 FUNDED BY THE GOVERNMENT OF SRI LANKA



DGM Division	No. of Projects
Central	08
Eastern	08
North Central	04
North Western	04
Northern	02
Sabaragamuwa	11
Southern	09
Uva	04
Western Central	03
Western North	03
Western South	01
TOTAL	57

GOSL FUNDING THROUGH SMALL-SCALE INFRASTRUCTURE REHABILITATION AND UPGRADING PROJECTS

Under the Capital Works Programme, 25 new water supply projects and rehabilitation and augmentation on a further 32 water supply schemes were carried out in 2008.

DISTRICT-WISE CAPITAL WORKS PROGRAMME 2008

District	Allocation 2008 Rs. million	No. of Projects with Allocation	Beneficiaries
Ampara	50.39	3	107,400
Anuradhapura	87.6	2	35,000
Badulla	44.3	2	37,000
Colombo	70.1	3	150,000
Galle	7.0	2	11,300
Gampaha	84.4	3	248,750
Hambantota	7.9	1	16,000
Kalutara	164.1	1	142,000
Kandy	89.8	3	146,800
Kegalle	108.5	5	75,000
Kurunegala	97.2	4	105,400
Mannar	8.0	2	8,800
Matale	158.7	4	43,100
Matara	114.1	6	212,900
Moneragala	23.7	2	15,000
Nuwara Eliya	6.4	1	10,500
Polonnaruwa	85.0	2	51,000
Ratnapura	226.0	6	154,770
Trincomalee	107.0	5	145,000
Total	1,540.6	57	1,750,720

There were 33 projects without allocation continuing from previous years, and nothing could be done in 2008. Full allocation has been utilized during the course of the year.

COMPLETED PROJECTS

The following new projects and scheme rehabilitation projects were commissioned in the year under review.

North Western	Giriulla Dambadeniya Padeniya Panliyaddawatte* Wennooruwa*
East	Ulla* Andakulam Thambalagamuwa
Southern	Ambalangoda Tangalle Koggala* Greater Galle - Stage II
Sabaragamuwa	Morantota* Udawalawa

* New schemes

INITIATED PROJECTS

The following new projects and scheme rehabilitations were initiated in the year under review.

Samaragamuwa	Kolonna Galigamuwa Waganthale Pahala Kadugannawa
North Central	Medirigiriya
Southern	Kirindi Oya
Western	Kelani Right Bank Water supply facilities to Moratuwa, Panadura through TPs at Ambatale and Negombo Negombo WS and Optimization

DESCRIPTIONS OF GOSL FUNDED SMALL AND MEDIUM SCALE WATER SUPPLY PROJECTS

Avissawella New Town Water Supply Scheme

This is an augmentation project serving about 32,000 people in Avissawella new town. Water source is Kelani River with full treatment and capacity is 5,000 cu.m./day. Total cost estimate is Rs. 256 million.

95% of the treatment plant is completed and expansion of the WTP has been proposed. Rehabilitation of old intake is in progress (50% completed). Project completion is expected in 2009.

Jalthara Ranala Water Supply Scheme Phase I Stage I

This is a new project serving Kaduwela & Homagama DS divisions. Design population is 7,646 in 2030 for phase I stage I, 10,273 in 2030 for phase I stage II and 92,118 in 2030 for phase II. Water source is Kalatuwawa / Labugama (D20) for phase I and plant undertaken from Ceylon Heavy Industries & Company (CHICO) for phase II. Total cost estimate is Rs. 217.0 million for phase I and Rs. 1,295.95 million for phase II. Jaltara – Ranala area has been identified as a priority under above project and it is intended to implement this water supply scheme in two phases. Jaltara and Henpita Grama Niladari Divisions will be covered under phase I stage I and Artigala East, Artigala West, Panaluwa & Batawela will be covered under phase I stage II. The balance area within the Kaduwela & Homagama DS divisions will be covered under phase II. About 30% of phase I stage I was completed and this project is due to complete in 2010.

Hanwella Water Supply Scheme

This is an augmentation project serving about 20,000 people in Hanwella area. Water for this scheme is from Labugama - Kalatuwawa System. Total cost estimate is Rs. 46.5 million. It is proposed to augment the existing water supply scheme to expand the distribution net work. Total length of new distribution is 15.5 km out of which 9 km had been completed except RDA roads. It is expected to complete this project in 2009.

Kosgama Water Supply Scheme

This is a rehabilitation project serving about 20,000 people in Kosgama & Salawa towns. Water Source is Kelani River with filtration & chlorination with a capacity of 3,000 cu.m./day. Total cost estimate is Rs. 390.0 million. Due to lack of water in dug wells during dry season, existing WTP of Salawa fly wood factory is used to provide pipe borne water to Kosgama and Salawa areas. Treatment plant was completed and functioning with a temporary intake. Construction of intake is in progress. Expected project completion is in December 2009.

Oruwala Korathota Water Supply Scheme (Stage II)

This is new project to serve about 20,000 people in Oruwala and Korathota area. Water Source is Kalatuwawa reservoir. Total Cost Estimate is Rs. 15.2 million. This project consists of laying of PVC pipes, fittings & valves for Oruwala - Korathota water supply scheme (Stage II). The site is located within the Kaduwela PS limit. Length of pipe laying is about 12.5 km out of which 11 km was completed and awaiting for RDA approval for balance work. Physical progress was 85% while financial progress was only 20% at end of 2008.

Kalutara Integrated Water Supply Scheme Stage II

This scheme was designed in order to augment water supply to Payagala, Maggona, Beruwala, Dharaga Town, Bentota and Aluthgama areas serving about 142,000 persons. Project period is from 2006 to 2011. Water Source is Kaluganga with full treatment and capacity is 56,250 cu.m./day. Total cost estimate is Rs.901.5 million.

The main objective of stage II is to improve the transmission system to Southern areas of Kalutara. The project started in 2006. Rapid sand filter at Kethhena treatment plant and pump house at Alwis Place Kalutara are at construction stage and the overall progress at end of 2008 was about 18%. The transmission system procurement had been delayed and as a result the RDA approval was not granted to lay along Galle - Matara A2 road since the road had been newly relaid. The tenders have been now re-called to lay this transmission lines along an alternative roads.

Construction of Pump House at Alwis Place, Kalutara

Kirindiwela Water Supply Scheme

This is a new project serving about 15,000 people in Kirindiwela and Urapola towns. The project period is 5 years. Water source is Kelani River with full treatment and effluent is discharged to inland water canal. Total cost estimate is Rs. 198 million. The new treatment plant which can supply 2,750 cu.m./day will be constructed on the existing treatment plant site at Pugoda and it will be commissioned after completion of minor balance works. Intake construction is on-going. Overall progress at end of 2008 is about 75%.

Katunayake - Seeduwa Water Supply Scheme

About 32,000 people in Katunayake and Seeduwa will benefit from this project with a capacity of 4,500 cu.m./day. Water source is Dandugama Oya and water requirement will be obtained from augmented Raddolugama WTP. Total cost estimate is Rs. 479 million. Augmentation of the existing Raddolugama WTP was commenced and part of the distribution system has to be laid. The progress of the project was delayed due to RDA issues and non availability of funds. Overall progress as the end of 2008 was about 60%.

Pitabaddera Water Supply Scheme

This is a new project of period from 2007 to 2009; was planned to be implemented serving about 7,000 people in Pitabeddara town. Water source is a bore hole with partial treatment and capacity of 1,000 cu.m./day. This WSS comprise of intake improvements, construction of treatment plant, transmission and distribution mains, supply and installation of pumps. This scheme is expected to complete within 2009. Contractor's poor performance caused delay in completion. Overall progress at end of 2008 was 43%.

Thalawakele Lindula Water Supply Scheme

This is an augmentation of existing scheme serving about 15,000 people in Thalawakele and Lindula reas. Water sources are Great Western and Nanuoya. Total cost estimate is Rs. 172 million and funding sources are GOSL and Ceylon Electricity Board rechargeable. The existing partial treatment plant 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 conversion of partial treatment plant to full treatment by adding the component of aerator, flocculator, sedimentation and pressure filters in addition it is expected to expand the existing distribution system in order to provide the pipe-borne water to resettle areas due to Upper Kotmale hydro-power project. Overall progress at the end of 2008 was 10%.

Akuressa Water Supply Scheme

This is a new project started in 2000. Water source is Nilwala river with full treatment and a capacity of 3,150 cu.m./day. Total cost estimate is Rs. 338.6 million. The WSS caters to about 22,500 people in Akuressa and Athureliya DS divisions. The intake for this scheme is at Balakawala and water is pumping to Thalgassa treatment plant situated about 1 km away from the intake. Physically about 80% of the project is completed and it is expected to complete within 2009. Financial constraint is the major issue in this project and financial progress is 66%.

Radampola Water Supply Scheme

This is new scheme commenced in 2005 considering the development in Radampola and its immediate suburbs which will benefit about 13,000 people in end of 2006, a contract was awarded for the construction of 1,800 cu.m./day capacity treatment plant. The original TCE was increased up to Rs. 133 million at the end of 2008. This project comprise construction of treatment plant, intake improvement, pipe laying, supply and installation of pumps. Project is expected to complete within 2009. Construction of treatment plant was completed. Poor performance of the contractors caused for the delay of project completion.

Udugama Water Supply Scheme

This new scheme was commenced in 2004 considering about 8,500 beneficiaries in Udugama and its immediate suburbs. Original TCE (Rs. 86.94 million) was revised up to Rs. 145.5 million. Water source is a bore hole with full treatment. This project is comprise of intake improvement, 1,200 cu.m./day capacity treatment plant, transmission and distribution mains, supply and installation of pumps and expected to complete within 2009. Contractor's poor performance prohibition of transporting pebbles were problems for progress of project. Physical financial progress at the end of 2008 were 95% and 61% respectively.

Marassana Water Supply Scheme

This is a new scheme of serving about 16,000 (other than existing) people in Marassana town and suburbs. Water source is Ma-oya with full treatment and capacty of 5,000 cu.m./day. TCE is Rs. 540.13 million. Present production of 2,200 cu.m./day capacity is not enough to cater the rapidly growing, water demand of the area. All together there are about 3,500 service connections and zoning method is used in distribution. Lack of funds, land matters were the constraints for progress of the project.

Galigamuwa Water Supply Scheme

At present there is no pipe borne water supply in Galigamuwa Town. This project includes construction of new intake (5,000 cu.m./day) at Alawwa, Conventional WTP wath capacity 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. TCE is Rs. 841 million and 31,000 people are to be benefitted in Galigamuwa town area. This is a new project and the period is 3 years. Funding to be identified. Procurement work was started and land acquisition was goingon

Godakawela Water Supply Scheme

This is a new scheme with 1 year period serving Godakawela town. Water source is Rakwana Ganga with full treatment and capacity 4,000 cu.m./day. Sludge of the raw water filters by drying beds and discharges to the land of treatment plant. Total cost estimate is Rs. 81 million. Overall progress of the project is 85%.

Embilipitiya Water Supply Scheme

This is an augmentation of existing scheme with a treatment plant. Construction of the treatment plant is in progress. Preparation of tender documents for M&E work is in progress. A location for intake structure at Chandrika Wewa has been identified and surveying has been carried out and designs to be commenced once the soil investigation is completed. The intake to be constructed after obtaining the approval of the MASL.

Udawalawa Water Supply Scheme

This is an augmentation of existing WSS. Design work has already been completed. Construction of treatment plant, intake, transmission main, M&E work and supply of PVC pipes for distribution system were completed. Tenders to be called for supply of DI pipes for distribution system and supply & laying of uPVC/DI pipes for distribution system.

Angammana, Naranwita and Gampolawatta Water Supply Scheme

This is a new scheme serving about 5,000 people in Angammana, Naranwita and Gampolawatta towns. Water source is Thundeniya Oya with full treatment and capacity of 1,000 cu.m./day. Total cost estimate is Rs. 140 million and overall progress at the end of 2008 was 20%. Construction of impounding reservoir and lack of funds affected the progress of work.

Ambagasdowa Water Supply Scheme

This is a new scheme serving about 18,000 people in Ambagasdowa area and suburbs. Water source is Bomburuella with full treatment and a capacity of 3,000 cu.m./day. Total cost estimate is Rs. 185 million. Physical and financial progress at the end of 2008 were 60% and 50% respectively.

Monaragala Water Supply Scheme Stage II

This is an augmentation of existing scheme serving about 10,000 people in Monaragala town and suburbs. Project period is 2 years. Water source is a stream through G-Lon estate with partial treatment and capacity of 3,500 cu.m./day. Total cost estimate is Rs. 154 million and physical and financial progress at the end of 2008 were 95% and 60% respectively.

Ohiya Water Supply Scheme

This is a new scheme of 3 years period serving about 10,000 people in Welimada town and suburbs. Water source is Uma Oya with full treatment and capacity of 2,000 cu.m./day. Total cost estimate is Rs. 189 million and physical and financial progress at the end of 2008 were 60% and 70% respectively. Fund restrictions are delaying the progress of the project.

Mahawa Nikaweratiya Integrated Water Supply Scheme

This is a new project serving about 9,000 families in Nikaweratiya, Mahawa and suburbs. Water Source is Magalle tank with full treatment and capacity 6,500 cu.m./day. Total cost estimate is Rs. 586 million. Plant was commissioned and about 60% of the total work has been completed. The intake work is in progress. The electro-mechanical works are to be started.

Nikaweratiya Siphon System

Kundasale Water Supply Scheme

This is a new scheme of 2 years period serving about 100,000 people in Kundasale, Balagalla, Digana, Arattana and Wawinna areas. Water source is Mahaweli River and Huluganga with full treatment and capacity of 20,000 cu.m./day. Total cost estimate is Rs. 1,250 million and overall progress at the end of 2008 was 53%. Presently a production of 18,000 cu.m./day is obtained from Arattana & Kundasale treatment plants. The demand in the area has been increased to 23,000 cu.m./day immediate improvements are underway to cater the demand in the area. Intake capacity has to be increased by mean of a new intake well.

Palapathwela Water Supply Scheme

This is a new scheme serving about 22,000 people in Palapathwela and Kottegoda areas. Water source is Suduganga with full treatment. Total cost estimate is Rs. 150 million. Intake and treatment plant are the same as Matale water supply scheme. Treated water is pumped to a ground reservoir located at Palapathwela and distribution is planed from there using a 8 km long pumping main. Intake and treatment plant capacity is proposed to improve by extra 4,000 cu.m./day and necessary modifications are in progress. Construction of pump house was delaying due to lack of funding. Overall progress at the end of 2008 was 40%.

Dambulla Water Supply Scheme

This new scheme has been planned to supply water to about 16,500 people in Dambulla town and suburbs. Low lift pumps are located at the intake well at Ibbankatuwa reservoir. The treated water is pumped to a ground reservoir of 650 cu.m. capacity and the distribution is done from this reservoir. Project period is 3 years. Water source is Ibbankatuwa reservoir with full treatment and capacity 3,000 cu.m./day. Total cost estimate is Rs. 225 million. Difficulity in getting anthracite for filter media for filter improvements, delays in purchasing materials and lack of funds were constraints for the progress of the work. Overall progress at the end of 2008 was about 80%. These is a proposal for improving the capacity up to 5,000 cu.m./day in order to expand the distribution area along Dambulla - Galewela main road.

Thampalakamam Water Supply Project

This project is for laying of distribution lines. It covers Thampalakamam, Mullipothana and Galmettiyawa etc. TCE is Rs. 212 million and beneficiaries are about 12,125 people.

Matale Water Supply Scheme

This is a rehabilitation of existing scheme serving about 60,000 people in Matale town area and suburbs. Project period is 4 years. Water source is Suduganga with full treatment and capacity is 12,000 cu.m./day. Total cost estimate is Rs. 385 million. The existing scheme has been handed over to NWSDB in 1999 by Municipal Council of Matale. At that time capacity was 9,000 cu.m./day. It has been proposed to improve the capacity up to 16,000 cu.m./day. Under this improvement, construction of new intake sump and pump house, treatment plant augmentation and pump and distribution system improvement are included. Flocculator construction and filter rehabilitation were delayed due to lack of funds. Overall progress at the end of 2008 was 75%.

Dankotuwa Water Supply Scheme

This is an augmentation of existing scheme. The project period is 3 years. Water source is Maha Oya with full treatment and capacity 3,000 cu.m./day. Total cost estimate is Rs. 178 million. The present water supply scheme extracts water from Maha Oya and raw water is pumped to 113 cu.m. capacity elevated tower. Only treatment method was disinfection. It serves a population of 2,500 people. Augmentation of the scheme partly completed. Once the full plant is commissioned, it will serve a population of 5,000 people. Plant was commissioned and balance works are to be completed. There is a funding problem for balance work.

Dehiattakandiya Water Supply Scheme Stage I & II

The work includes rehabilitation of existing WTP up to 4,100 cu.m./day, expanding the distribution system, supply & laying of pumping mains and supply & installation of pumps. TCE is Rs. 411 million and 21,000 people in Dehiattakandiya are to be benefitted . This is a rehabilitation project and the period of construction is 2 years. Progress of Stage I is about 80%.

Serunuwara Water Supply Project

This is a new project propsed to serve Serunuwara, Kallaru and suburbs. Contracts for laying of pipes have been awarded and work was progressing. The balance proposed components of the project are yet to be finalized. The TCE for supply and laying pipes is Rs. 110 million. Beneficiaries is 9,500 people in 2028

Ipalogama Water Supply Scheme

This is a new scheme serving about 2,000 families in Ipalogama Ranaviru village and 4 GN divisions in Ipalogama PS. The treatment plant and the intake are common to both Ipalogama and Kekirawa existing water supply schemes. The source is Kalawewa with full treatment and 4,500 cu.m./day capacity. The total length of raw water pumping main is 4 km and the length of transmission main is 4 km. Limited allocation was a constraint for the progress of work. Physical and financial progress at the end of 2008 were 50% and 12% respectively.

Minneriya Hingurakgoda Water Supply Scheme

This is an augmentation of the existing scheme serving about 69,176 people in Minneriya, Girithale and Hingurakgoda area. The project period is 3 years. Water source is Minneriya tank with treatment process having rapid sand filters and disinfection system and 10,000 cu.m./day capacity. Total cost estimate is Rs. 919 million. Minneriya & Hingurakgoda water supply schemes are functioning from Minneriya water treatment plant which is the only WTP available for entire DS area. Presently both schemes have about 5,000 connections and its distribution system limited to some parts of the DS division. Therefore scopes of the project included upgrading of the intake capacity to 13,600 cu.m./day, augmentation of the existing Minneriya water treatment capacity, expanding of the present distribution network by adding 80 km new distribution network and improving of the storage capacities of both Minneriya & Hingurakgoda schemes. Limited allocation was a constraint for progress of work. The project is in progress and the overall as at end of 2008 is 5%.

Medirigiriya Water Supply Scheme

This is a new scheme serving about 15,000 families in Medirigiriya old town & new town, Diulankadawala, Diyasenpura and Wijayapura areas. Water source is Kaudulla tank with treatment having rapid sand filters and disinfection and 9,000 cu.m./day. Sludge thickener and sludge drying beds are proposed for efficient treatment. Total cost estimate is 1890 million. This scheme aims to provide safe drinking water from a reliable and quality water source. This project consist of construction of intake and raw water pumping system, WTP, storage facilities, transmission systems and construction of distribution system. Limited allocation was a constraint for progress of work. Physical and financial progress at the end of 2008 were10% and 5% respectively.

Kantale - Agbopura Water Supply Extension

This is a water supply extension project to supply water to Agbopura, Peramaduwa, Sugar factory area and Wadukachcheri. TCE is Rs. 145 million. Beneficiaries is 4,000 people. The laying of pipes was progressing well.

NEW INITIATIVES TO BE PURSUED IN 2009

Consultancy Services of NRW Engineering Studies, Master Plan Update and Institutional Development

This is a new project of 2 years period for Western province. Total cost estimate is Rs. 270 million and funding source is JBIC. Project includes Master Plan update to Western province, assessment of the available water sources estimation of water demands and NRW engineering studies and institutional development. At end of 2008, the Consultants appointment was initiated.

Energy Conservation Project for Ambatale WTP and Pumping Station

This is a rehabilitation project of 3 years (2009 - 2011) duration serving 437,000 people in Greater Colombo area (Colombo, Gampaha). Total cost estimate is Rs. 7,506 million and the funding source is KfW. The project was in evaluation stage at end of 2008. NWSDB carried out under two Energy Audits in the Ambatale water treatment plant. The Energy Audits have revealed that there is a potential for reducing the energy cost by 31% with substantial servings. The project consist of; carrying out a comprehensive Energy Audits, providing a major transmission systems for Ambatael to Colombo to conserve energy, re-arrange the pipe connection efficient to conserve energy and re-arrange and replace pumping units and pumping arrangements.

Rehabilitation of Labugama Kalatuwawa Water Treatment Plants

This is a rehabilitation project of 2 years (2009 - 2010) period serving Colomo City, Kaduwela and Hanwella areas. Total cost estimate is Rs. 6,800 million and funding is from Hungarian Government. The project includes the rehabilitation and augmentation of Labugama and Kalatuwawa WTPs (originally commissioned in 1886 and 1957 respectively) to improve the treated water quality and plant operational efficiency and to effect necessary repairs. The initial tender process was abandoned. The project is to be re-tendered in Hungary. At end of 2008 the project was in procurement stage.

Consultancy Services for Project Management of Kalu Ganga WSP Phase I Stage II and NRW Reduction Project

Kalu Ganga water supply phase I stage II is a new project serving about 400,000 people in Piliyandala, Kesbewa and Horana areas. Project includes consultancy services and the construction of a 13.5 MGD capacity treatment plant at Kandana, transmission main from Bandaragama to Piliyandala, distribution in Kesbewa and Horana areas, NRW reduction of 2,000 households in Colombo area and replacement of old Cast Iron pipe lines laid in Colombo City. TCE is Rs. 10,844 million and funding source is JBIC. Request For Proposals (RFP) document was under evaluation at end of 2008.

Ruhunupura Water Supply Development Project

This is a new project to serve 112,000 people in 2025. Water source is Ridiyagama tank. Funding source is the Korean Government. Total cost estimate for Stage I is Rs. 9,742 million and for Stage II is Rs. 3,760 million. The proposed Ruhunupura WSP is planned to provide drinking water to Ruhunupura and Hambantota areas. The project is proposed to implement in two stages.
Stage I - construction of 1,750 cu.m./day capacity treatment plant, supply and laying of DI transmission main and construction of 4 ground reservoirs and elevated towers.
Stage II - construction of 17,500 cu.m./day capacity treatment plant.
Tender process was initiated in end 2008.

Dankotuwa Water Supply Project

This is a new project with Phase I of 4 years and Phase II of 3 years periods serving 258,000 peoplr in 2027 in Dankotuwa, Wennappuwa and Narandiya areas. Water source is Ma Oya. Total cost estimate for phase I is Rs. 5,600 million and for phase II is Rs. 1,475 million and funding source is Canadian. The Phase I covers 55% of Dankotuwa, Nattandiya and Wennappuwa areas with 43,000 cu.m./day capacity full treatment plant and Phase II covers part of Mahawewa area and balance areas of Dankotuwa, Nattandiya and Wennappuwa with 13,500 cu.m./day treatment plant. The project was under evaluation at the end of 2008.

Balance Distribution Expansion in Ampara District

This is a new project of 3 years period serving 145,000 people in 2025 in Ampara area. Water sources are Jayanthi Wewa and Himadurawa tank. Total cost estimate is Rs. 4,266 million and funding source is JBIC. The project includes the sub projects as priority basis are; transmission main from Konduwatuwana to Kalmunai distribution system for Pothuvil, Tsunami Housing Scheme, Uhana, Damana and Hingurana water supply schemes. At the end of 2008 the project apprisal was in progress.

NEW PROJECTS IN PIPELINE

Hanwella 10 MGD WTP Stage I & Stage II

This project to be implemented in two stages, includes construction of 10 MGD Intake, 2.5 MGD WTP, ground reservoir (3,000 cu.m.) pump houses, supply & installation of pumps. TCE is Rs. 2,503 million and 100,000 people are to be benefitted in Towns East and South of Colombo City. This is a new project and the period is 2 years.

Kolonna Water Supply Scheme

Construction of 7,700 cu.m./day full water treatment plant, intake, ground reservoirs (1,000 cu.m.) water tanks (1,500 cu.m.). Supply & Laying of 25 km DI transmission main, distribution networks. TCE is Rs. 714 million and 55,000 people are to be benefitted in Aereporuwa, Kolonna, Maduwanwela and Nandanagama. This is a augmentation project and the period is 2 years.

Balangoda Water Supply Scheme

This Project augment the existing WTP by 6,500 cu.m./day. Construction of 2,000 cu.m. ground reservoir, supply & laying of DI transmission mains (2 km), distribution lines (72 km - uPVC). TCE is Rs. 780 million and 62,500 people are to be benefitted in Balangoda and Samanala Wewa Area. This is a augmentation project and the period is 2 years.

Ruwanwella Water Supply Scheme

By constructing two intake (3,000 cu.m./day, 7,000 cu.m./day) construction of 19,000 cu.m./day WTP. Construction of ground reservoirs (900 cu.m./1500 cu.m. & 2,000 cu.m.). Supply and laying of distribution lines. TCE is Rs. 2,445 million and 110,000 people are to be benefitted in Ruwanwella town and suburbs. This is a augmentation project and the period is 3 years.

Makandura, Pannala & Kuliyapitiya Integrated Water Supply Project

Proposed project will be planned to produce 21,000 cu.m./day utilizing Mah Oya as the source. Construction of new intake, tower (2,000 cu.m. and 450 cu.m.), supply & laying 20 km transmission mains & 60 km distribution lines. TCE for Phase I is Rs. 332 million and Rs. 1,128 million for Phase II and 112,000 people are to be benefitted in Makandura, Pannala, Kuliyapitiya and Udubaddhawa. This is a new project and the period is 2 years.

Greater Matale Integrated Water Supply Scheme

Proposed project will be planed to improve treatment plant capacity to 38,500 cu.m./day, construction of 4 ground reservoirs (3,200 cu.m., 2,500 cu.m., 2,000 cu.m. and 550 cu.m.). Supply and laying of 30 km transmission main and 160 km distribution lines. TCE is Rs. 6,312 million and 80,000 people are to be benefitted in Ukuwela, Matale, Yatawatta, Pallepola and Rattota. This is a new project and the period is 4 years.

Puttalam/ Anamaduwa Integrated Water Supply Scheme

Project phase I included 30,000 cu.m./day WTP, ground reservoir (400 cu.m.). Supply and laying of 50 km DI transmission main & 25 km distribution. Phase II includes construction of 15,000 cu.m./day WTP, elevated reservoirs (750 cu.m. - 4 Nos, 450 cu.m. - 4 Nos). TCE for Phase I is Rs. 3,950 million and Rs. 1,700 million for Phase II and 240,000 people are to be benefitted in Anamaduwa town and suburbs. This is a new project and the period is 4 years.

Dam Safety & Water Resources Planning Project

This is a national project which is prepared and to be implemented by several organizations. Under the above project, kalatuwawa dam has been selected with other 31 dams to improve the operational efficiency and sustainable institutional arrangement for effective dam safety management. Also, it has been selected Kalatuwawa and Labugama dams to provide basic safety facilities. The activities such as upgrading the access roads lighting systems, construction of security huts and caretaker quarters at Kalatuwawa saddle dam, supply of boats and generators and suitable measures to improve water quality are proposed. The total cost for above activities will be around Rs. 26 million. P&D Section handles design and preparation of BOQs and specification for above activities.

Matara Water Supply Scheme - Stage IV (with Salinity Barrier)

Project planned to construct 17,500 cu.m./day intake and 16,500 cu.m. WTP. Ground reservoirs (1,400 cu.m. and 2,300 cu.m.), pump house and supply and laying of 33 km transmission mains, 200 km distribution improvements. TCE is Rs. 6,312 million and 72,000 people are to be benefitted in Devinuwara, Thihagoda, Dikwella, Beliatta, Aparaka in Matara district. This is a new project and the period is 3 years.

Jayanthi Wewa Water Supply Project

Construction of Intake and 02 MGD WTP. Laying of distribution lines Installation of M&E equipments. TCE is Rs. 9,242 million and 88,000 people are to be benefitted in Kondawatuwana, Damana, Modara and Wadingala. This is a rehabilitation project and the period is 3 years.

Badulla - Bandarawela Intergrated Water Supply

The project includes new treatment plant 9,000 cu.m./day, new ground reservoirs and supply and laying of 106 km distribution, 68 km transmission mains. TCE is Rs. 13,544 million and 45,000 people are to be benefitted in Badulla, Hali-ela, Welimada and Boralanda. This is a new project and the period is 4 years.

Provision of Drinking Water Facilities to Kalmunai and Suburbs from Kondawattuwana WTP

Water transmission from Bangalawadiya to Kalmunai and distribution to Kalmunai & suburbs. Project includes supply & laying 28 km transmission mains, construction of elevated tower (450 cu.m.) and pump house. TCE is Rs. 2,054 million and 261,000 people are to be benefitted in Bangalawadi and Kalmunai. This is a augmentation project and the period is 2 years.

Improvement of Colombo City Distribution System

The Colombo City major distribution network was modeled and at present approximately 65 MGD was distributed by this network including 50% NRW value. The objective of the project is to improve the existing Colombo City distribution network to suit year 2030 demands. It is assumed that present production capacities will increase to cater the required demands with the implementations of the identified projects. The total cost estimate of project is Rs. 4,000 million.

Ratnapura Integrated Water Supply Project

This is an augmentation project of 4 years (2009 - 2012) period serving 160,000 people in year 2025 in Ratnapura, Kuruwila and suburbs areas. Water source is Kuru Ganga at Kuruwita. Treatment capacity is 21,000 cu.m./day with full treatment. TCE is Rs. 4,832 million and funding source is Spanish. The project is in evaluation stage in the end of 2008. Proposed WSS consists of 03 new intakes to cater the required water quantity. These 03 intakes are necessary for the WSS since during the dry season, the quantity of water extraction from the proposed springs reduces significantly. The 3 intakes identified are Induruwa (7,000 cu.m./day), Kaludiya Ella (2,000 cu.m./day) and Kuruganga (5,000 cu.m./day). By implementing this WSS 12, 26 and 10 GN divisions in Kuruwita, Ratnapura and Pelmadulla respectively can be served.

Kalutara Water Supply Augmentation Stage III

The areas along southwest coastal belt from Wadduwa to Bentota and some inland areas like Bombuwalla, Pilaminawatta, Matugama & Agalawatta will be covered under this project. Mainly the project focuses on improvements of transmission and distribution networks. The feasibility report has being prepared and sent for External Resource Department for seeking funds after getting approvals of the Ministry and NPD. The TCE of project is Rs. 3,561 million.

Himadurawa Tank Water Supply Project

Construction of Intake and 4.5 MGD WTP, supply and laying of transmission and distribution lines. Supply and installation of M&E Equipments. TCE is Rs. 11,359 million and 145,000 people are to be benefitted in Ampara, Nivitthanveli, Uhana, Bakki-ella and Himaduruwa. This is a rehabilitation project and the period is 3 years.

Jaltara - Ranala Water Supply Phase II

Construction of water towers at Padigamuwa and Puwakgaha (1000 cu.m. each), supply and laying of 20 km transmission mains and 120 km distribution mains. TCE is Rs. 1,080 million and 85,500 people are to be benefitted in Panagoda, Godagama, Meegoda, Pannala, Nawagamuwa and part of Homagama. This is a new project and the period is 2 years.

Badalkumbura - Alupotha Integrated Water Supply Scheme

This project is formulated to serve the areas which are not covered with the present borehole scheme Milla Ella was selected as the source and PAC approval was obtained for the amount of Rs. 1,440 million.

New Transmission Main From Angoda to Maligakanda

The proposed 1000 mm dia. transmission pipe line from IDH to Maligakanda is approximately 8.6 km in length. This transmission pipe line will be an extension of the proposed 1200 mm diameter transmission pipe line from Ambatale to Angoda under the Colombo Water Rehabilitation Project (JBIC funded). PAC approved the project and funds to be identified. TCE of the project is Rs. 3,350 million.

Mirigama, Kandalama, Kaleliya & Ganegoda Group Of Town Water Supply

The project expected to construct treatment plant (6000 cu.m./day) at Ambepussa and supply and laying of 60 km distribution main and 11 km DI transmission mains, construction of 500 cu.m. clear water tank. TCE is Rs. 1,046 million and 30,000 people are to be served in Mirigama, Weliwita, Neligama and Udawela. This is a new project and the period is 2 years.

Ingiriya - Handapangoda Intergrated Water Supply Scheme

The proposed Ingiriya - Hadapangoda WSS consists of transmission main from Horana to Handapangoda, 1500 cu.m. capacity ground reservoir and two towers with 675 cu.m. and 500 cu.m. in capacity and the distribution improvements in Ingiriya area and laying of new distribution system for Handapangoda area. The TCE of the project is Rs. 1202 million.

Marassana Water Supply Project

The present production, 2,000 cu.m./day is not sufficient to cater the demand, so it is expected to increase up to 9,650 cu.m./day. Water source is Maoya with full treatment. About 58,038 people in Marassana, Bawlana, Mudunekade area will benefit from this project. Project period is 4 years. Pre-feasibility report approved by PAC and preparation of feasibility report was in progress.

Haragama Water Supply Project

The present production of Haragama WSS is expected to be augmented from 150 cu.m./day to 30,500 cu.m /day. Water Source is Mahaweli ganga with full treatment. About 176,137 people in Haragama, Talatuoya, Anuragama area will benefit from this project. Project period is 4 years. Total cost estimate is Rs. 10,787.5 million. Pre-feasibility report approved by PAC and preparation of feasibility report was in progress.

Monaragala - Buttala Water Supply Scheme

Due to lack of drinking water supply in some areas in Monaragala district, it has been proposed to enhance the capacities of selected existing water supply schemes in the area. Under these projects, it is expected to integrate the existing Monaragala, Buttala and Okkampitiya WSSs to serve Monaragala, Buttala, Okkampitiya and Nakkala areas. The total water demand in the year 2030 is about 16,000 cu.m./day and the total population coverage is about 90,000. The proposed Nakkala reservoir is the expected main source of water for this project. However, until it is constructed, the water sources of existing WSSs are to be improved and to be used together with few new bore holes to cater the demand of 12,000 cu.m./day in the year 2020 as the Stage 1 of the project. After construction of the proposed Nakkala reservoir, the total water requirement is to be extracted from that reservoir.

Padaviya Water Supply Scheme

Padaviya area has been identified as one of the important areas, which has to be invested for water supply development. Recent statistics have highlighted alarmingly high incident of chronic renal failures (CRF) in this area. It is suspected that heavy metals and high fluoride contain in the ground water as the main cause for this Kidney Failure. This is a new scheme to be served about 42,000 people in Padaviya area. The Project period is estimated as 2 years. Proposed source is Padaviya Tank treated with filtration and with 9,000 cu.m./ day capacity. The total cost estimate is Rs. 2,022 million. Feasibility report has been submitted for approval. Approval for water extraction should be taken from Irrigation Department.

Pathadumbara Integrated Water Supply Project

It is planed to augment the Kundasale, Polgolla and Rangala water treatment plants up to the capacity of 56,000 cu.m./day, 5,000 cu.m./day and 6,000 cu.m./day respectively. The existing water supply systems have limited capacities and augmentation is required to cater the demand of pipe borne water due to development and high human settlements. About 723,000 people in Kundasale, Menikhinna, Polgolla, Wattegama and Karalliyadda will benefit from this project. Project period is 3 years. Water sources are Mahaweliganga and Rangala oya with full treatment and capacity of 127,000 cu.m./day. Total cost estimate is Rs. 8,741.5 million. Water right obtained and pending for cabinet approval.

Gampaha, Attanagalla and Minuwangoda Integrated Water Supply Scheme

Gampaha, Attanagalla and Minuwangoda integrated WSP was proposed to provide water supply facilities to the Gampaha, Attanagalla and Minuwangoda DS division areas. Project has been proposed to implement in two phases. Under the phase I stage I, Gampaha, Yakkala and Nittabuwa distribution system will be improved. The components such as a storage reservoir at Basnagoda with intake structure, 22,500 cu.m./day capacity water treatment plant and transmission & distribution network including improvements of existing distribution systems are included for the phase I stage I. TCE for this stage will be Rs. 7,273 million. Total benefitted population will be around 550,000 when completion of the two phases. PAC approval has already been obtained for the proposal. Feasibility studies for the proposed project has to be carried out.

Kotmale Riverside Water Supply Ptoject

This scheme is presently operated by MASL and it is prepared to hand over to the NWSDB. Present WSS has a capacity of 500 cu.m./day with partial treatment and it consists of inefficient treatment methods. It is proposed to augment the scheme up to 2,000 cu.m./day capacity to cater for future demand with full treatment and distribution system expansion. Project period is 4 years. About 2,500 people in Mahaweli housing scheme and office complex will benefit from this project. Total cost estimate is Rs. 379 million. PAC approval obtained.

Hataraliyadda Water Supply Project

This is a new project providing safe drinking water facilities to about 8,837 people in Hataraliyadda and Dehideniya area. Project period is 1 year. Water source is Malmee oya with full treatment and with a capacity of 1,400 cu.m./day. Total cost estimate is Rs. 1,007.4 million. PAC approval obtained.

Kalu Ganga Water Supply Project Phase II Stage I

This is a new project serving 666,000 people in Kalutara, Moratuwa, Panaduwa and Horana areas. Total cost estimate is Rs. 13,929 and funding source is Australian Government. The project includes the construction of 90,000 cu.m./day capacity water treatment plant, supply and laying of DI transmission mains, M&E equipments, distribution expansion of Horana, Wadduwa and Waskaduwa and new intake at Kuda Ganga including a gravity main to Kethhena intake. The project is under evaluation at the end of 2008.

Wandura Peenu Ella Water Supply Project

There are five small scale water supply schemes available in the area, but they are not technically feasible to expand. Further the operational costs can be reduced by the new proposal. About 219,439 people in Mawathagama, Ibbagamuwa, Gokarella, Melsiripura, Redeegama and suburbs of Kurunegala town will benefit from this project. Water source is Deduru Oya with full treatment. This project will be implemented in two stages. Costs for Stage I and II are Rs. 9.76 billion and Rs. 14.92 billion respectively.

The project components include; construction of 2,000 cu.m. capacity impounding reservoir with a dam across Deduru Oya, 39,500 cu.m./day capacity WTP, 41,500 cu.m./day capacity intake and 13 service reservoirs, supply and laying of 88 km long transmission main and 425 km long distribution network, supply and installation of electromechanical items, facilities for operation and maintenance and catchment protection. PAC approved this project.

Galgamuwa, Ambanpola Integrated Water Supply Project

The Objective of this study is to prepare a proposal for overcoming the present problems in the existing schemes and providing safe drinking water to about 124,880 people in Galgamuwa, Ambanpola and Ehetuwewa. This proposal meets 2030 demand, 20,000 cu.m. /day. It is also expected to reduce operational cost and provide pipe borne drinking water to 85% of the population in selected project area in 2030. Water sources are Usgala, Siyabalangamuwa, Kathnaruwa tank, Deduru Oya and Mee Oya with full treatment and capacity of 10,000 cu.m./day. Total cost estimate is Rs. 5,622 million. Pre-feasibility report approved by PAC and preparation of feasibility report was in progress.

Karukkapone Water Supply Scheme

Karukkapone is a coastal village situated between towns of Chilaw and Puttalum. As the water in this area is saline and with high iron content, the people are in a great scarcity of drinking water. The water demand is 850 cu.m./d and the total beneficiaries about 3600. The total estimated cost is Rs. 20 million.

Semi Permanent Salinity Barrier Project Stage I

This is a new project of 2 years period serving 500,000 people in Colombo City. In order to ensure the raw water quality for the 40 MGD Kelani Right Bank project construction of salinity barrier is essential. The proposed project suggest reinforcement of river banks with sheet piles and the construction of a concrete apron for placing of gunny bag. The project is to be finance by DANIDA mixed credit and the totol cost estimate is Rs. 476 million. At the end of 2008 the project was under evaluation stage.

Warakapola Water Supply Project

This augmentation will benefit for about 80,000 people in Warakapola, Nelumdeniya and Alawwa area. Water source is Maha Oya with full treatment and capacity of 16,000 cu.m./day. Project period is 3 years. TCE is Rs. 1,830 million. Obtained approval from PAC and NPD. Water rights should be taken from Irrigation Department.

Greater Dambulla Water Supply Scheme

This is a rehabilitation project of 3 years period serving 60,000 people in 2025 in Dambulla town and suburban areas. Total cost estimate is Rs. 4,091 million and funding source is India. The project is under evaluation at the end of 2008. The project is proposed with a new full treatment plant at same location of the existing treatment plant. The source is Ibbankatuwa (Dambulu Oya) reservoir. The proposed extraction of 30,000 cu.m./day had been included as drinking water requirement for the Moragahakanda reservoir which is under construction by MASL. The proposed project components are; construction of intake structure, treatment plant of capacity 30,000 cu.m./day and 8 reservoirs and other related head works, installation of 16 high lift pumps & laying of and 60 km pumping main and distribution mains of a total length of 200 km

"Several important milestones were achieved in the year 2008 by the NWSDB with regard to the development of sewerage and sanitation development activities"

Sewerage

General

Sewerage Section

Having appointed a seperate Addl. General Manager and created a seperate section for sewerage activities in previous year, several important milestones were achieved in the year 2008 by the NWSDB with regard to the development of sewerage and sanitation development activities. Listed below are the important achievements.

- Sewerage tariff was introduced and billing of consumers was commenced in April 2008. According the tariff imposed, domestic and commercial consumers are billed on different tariffs based on the volume of water consumed.
- A comprehensive sanitation development plan up to year 2015 was prepared by the sewerage section during the year 2008. Investment needs, additional population served, priority areas, on-site and off-site sanitation requirements and additional coverage to be achieved by year 2015 are included in the above plan.
- Preparation of a publication (rate book) giving rates and prices to be used for sewerage works was compiled in the year 2008. The NWSDB expects to improve the above document by adding latest data every year.
- The foreign funded sewerage projects which are described in following pages are being looked after by Project Directors under sewerage section.

P&D Sewerage Section

During the year 2008, P&D section was involved in planning & designing ,tendering construction supervision and reviewing designs of projects of various magnitudes. Details of which are given in subsequent paragraphs.

Other important activities carried out during the year are;
Preparation of Sanitation Development Plan for the horizon 2008 – 2015,

- Preparation of rate book for sewerage works for the year 2008-2009,
- Providing specialist assistance in preparation of O&M manual for sewerage works and Public Health Inspector (PHI) Manual.
- Development of new type drawings for on-site sanitation works

Rechargeable Jobs

The section was engaged in 11 rechargeable jobs of various scopes depending on the technical assistance expected by the clients. Havelock City sewerage disposal system, wastewater treatment and disposal facilities to Kandy Board of Investment (BOI) industrial zone in Pallekele, wastewater collection, treatment & disposal facilities to Sri Jayawardenapura University, new sewer network facilities for Meteorology Department, design of wastewater treatment facilities for Maharaja Television (MTV) Channel Pannipitiya, improvement of wastewater treatment and disposal facilities in Jaffna Female Hostel, designing of new sewage collection, treatment & disposal system for Wildlife Department in Ritigala building complex, proposal for providing latrine facilities to Tsunami housing scheme in Siribopura, wastewater treatment facilities to NHDA housing scheme in Jaltara and wastewater treatment facilities to Ratmalana Tsunami housing scheme & Night Soil treatment plant in Hambanthota. The total value of the rechargeable works that have been handled by the section in 2008 was approximately Rs. 159 million.

P&D-Sewerage section has completed 4 rechargeable jobs during the year 2008 and achieved more than 75% of progress of other 7 jobs. The balance works of the above rechargeable jobs will be carried forward to year 2009. The income from rechargeable jobs amounts to Rs. 4.20 million for the consultancy provided during the year.

Assistance for Foreign Funded Projects

P&D section has involved in reviewing detailed designs and provided specialist assistance for 4 foreign funded projects; namely wastewater disposal project for Ratmalana/Moratuwa and Jaela/Ekala, Colombo sewerage rehabilitation project-Southern catchment, Kandy City wastewater disposal project and Greater Kurunegala water supply and wastewater disposal project.

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Feasibility studies and design works

The P&D section has completed the feasibility studies and forwarded the project concept to the National Planning Department for Negombo, Galle wastewater disposal projects, Kattankudy wastewater disposal project. These three projects will cost Rs. 7,331, 3,348 and 3,194 million respectively and be able to serve a population of about 86,700, 34,600 and 79,000 if implemented. Augmentation of Kataragama Sacred City wastewater disposal system is being designed and it will cost Rs. 720 million. The project concept has been submitted to the NPD already and pending the clearance.

The wastewater system for Jayawardenapura Kotte was studied during the year 2008 for the purpose of evaluating the successive offers by the project proponent. Conceptual design for Hambantota Wastewater Project is under preparation and the preliminary discussions have been already held with the SEMA and UDA about the draft project concept report.

Plan for 2009

Under development activities, it is expected to finalize the NPD clearance for the projects Negombo, Galle, Kattankudy and Kataragama. Pre-feasibility studies for wastewater system for Hambantota township development, Kalmunai and Matara area planned for 2009. Only, the preliminary assessment of sanitation situation in Matara will be done in 2009.

Rehabilitation & Augmentation of Kataragama Sewerage Scheme - Augment the existing treatment plant to 3,000 cu.m./day, supply & laying of collection network (18.5 km, uPVC and Vitrified Clay), and pumping mains (1 Km - High Density Poly Ethylene [HDPE]). TCE is Rs. 404 million and 15,000 people are to be benefitted in Kataragama town and suburbs. Project period is one year.

The scope for Sri Jayawardenapura Kotte wastewater project will be studied in view of phasing out of the project. A feasibility report is to be completed based on the technical design that has been already done. The project scope for the phase II of Ratmalana-Moratuwa & Jaela-Ekala will be finalized in 2009.

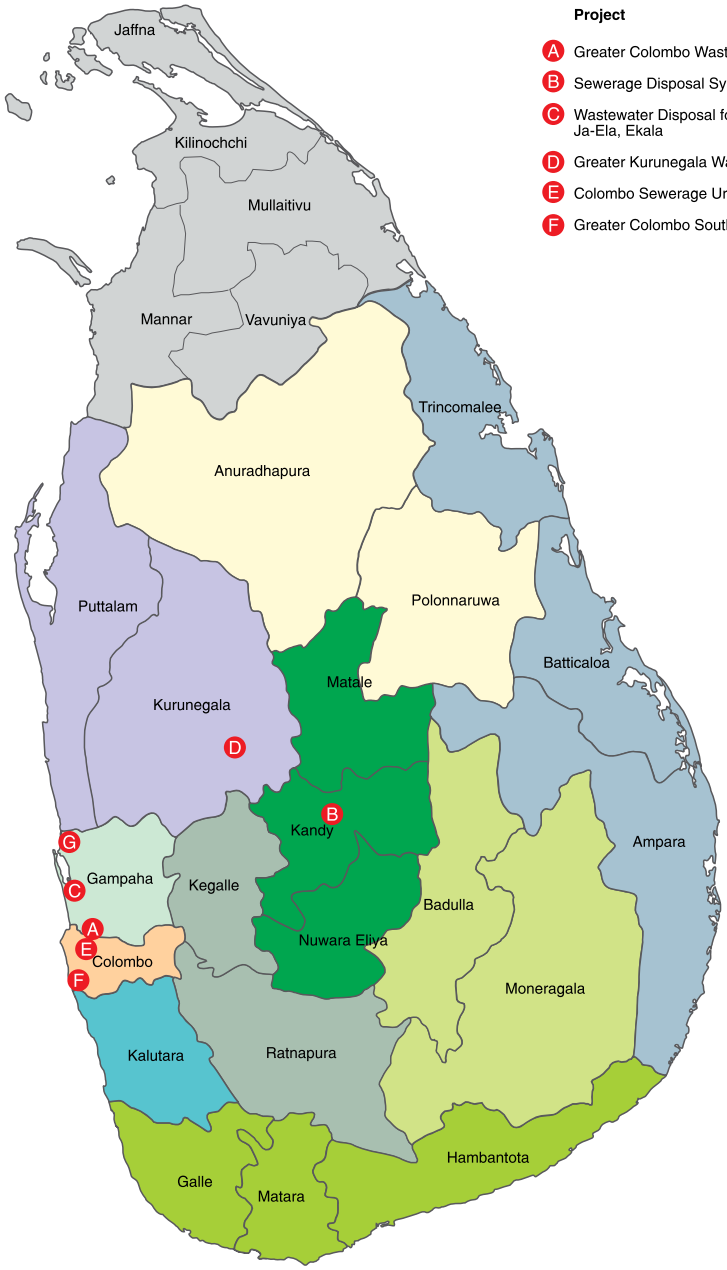
The remaining balance works of the seven rechargeable jobs will be completed in 2009 and commissioning also will be done in 2009.

Under institution development activities, review of the sewerage planning & design manual, sewerage rate book for 2009, updating the O&M manual, updating the Sanitation Sector Development Plan will be continued in 2009.

The Wetland of the Ratmalana Tsunami Housing Scheme Stage I

MAJOR SEWERAGE PROJECTS

LOCATION MAP OF FOREIGN FUNDED PROJECTS UNDER CONSTRUCTION/ AUGMENTATION DURING 2008



	Project	Funding Agency
A	Greater Colombo Wastewater Management Project	ADB
B	Sewerage Disposal Systems for Kandy Municipal	JBIC
C	Wastewater Disposal for Ratmalana, Moratuwa, Ja-Ela, Ekala	SIDA
D	Greater Kurunegala Water Supply & Sanitation Project	DANIDA
E	Colombo Sewerage Urgent Rehabilitation Project	DANIDA
F	Greater Colombo Southern Catchment Rehabilitation Project	AUSTRIAN

PROJECTS UNDERTAKEN WITH ASIAN DEVELOPMENT BANK ASSISTANCE

Greater Colombo Wastewater Management Project

This is a rehabilitation/ augmentation project for Kolonnawa, Dehiwala and Mt. Lavinia areas while new for Maharagama and Kaduwela areas and it was in preparation stage at the end of December 2008. Effluent will be discharged to sea via an out fall at Mutwal from Kolonnawa area, via an outfall at Wellawatte from Dehiwala and Mt. Lavinia and to water courses in accordance with CEA Standards from Maharagama and Kaduwela. Treatment capacity will be 10,000 cu.m./d. Treatment processes are conventional, septic tanks and anaerobic fitters. Total cost estimate is Rs. 3842.78 million.

It is proposed to start the Project in 2009 and to be completed by end of 2012. The project will benefit some 10000 people in North Kolonnawa upon completion of new sewers there. Population of around 25,000 within existing sewer areas of Kolonnawa and Dehiwala / Mount Lavinia will be benefited due to improved pump stations and proposed new connections. People in Maharagama and Kaduwela will receive improved on-site sanitation systems population benefited being about 25,000.

A feasibility study for the proposed work was done in 2007 by Atkins with the assistance of ADB and GOSL and it was included in the 2008 - 2012 Randora programme too (under Mahinda Chintana). However due to some disagreement between CMC and NWSDB about project implementation it was decided by the Secretary , Ministry of Finance & Planning to implement the Project as 2 units. Works within CMC area to be implemented by CMC and works within Kolonnawa, Dehiwala, Mt. Lavinia, Maharagama and Kaduwela to be implemented by NWSDB. Main components of the proposed project are,

1. Rehabilitation of existing wastewater pump stations at Kolonnawa, Wellampitiya, Meetotamulla, Dehiwala and Mt. Lavinia .
2. Providing first time pipe borne wastewater facilities to North Kolonnawa area.
3. Pilot study of on site sewerage system for Maharagama and Kaduwela.
4. Supply of wastewater equipment to Greater Colombo Sewerage Division.
5. Preparation of on site sanitation manual.
6. Extension of services at Kolonnawa and Dehiwala / Mt.Lavinia.
7. Update Greater Colombo Wastewater Master plan.

:

The Project was to be stared in January 2008 and to be completed by 2012. As part of the Project ADB insisted some 5 covenants to be implemented by the NWSDB/CMC/MWSD.

They are ,

- Signing of an MOU between CMC and NWSDB for the implementation as well as long term operation and maintenance of the system.
- Obtaining a legal opinion of the asset ownership of the Colombo Wastewater system.
- Allocation of lands for proposed treatment plants at Wellawatta and Madampitiya.
- Implementation of Sewerage tariff for all pipe borne Wastewater consumers.
- Finalization of sanitation Policy.

PROJECTS UNDERTAKEN WITH SWEDISH ASSISTANCE

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

This project is implemented under Sida loan and grant. The project components are as follows;

- Construction of wastewater disposal systems for Ratmalana/Moratuwa & Ja-Ela/Ekala areas (works contract) – US$ 90,650,485 – under SIDA loan
- Supervision contract – SEK 27,572,356 – under Sida Grant
- Resettlement of families at Treatment Plant site at Soysapura (including land cost) – SR. Rs. 267,104,000.00 – GOSL funds
- Study for House Connection & off-network Sanitary Solutions – Estimated cost US$ 2 million – World Bank Funds
- Ecological Sanitation Pilot Project – estimated cost US$ 0.15 million - under Sida Grant

Preliminary work at Lunawa sea outfall

The Project was commenced in February 2008 and scheduled to be completed by July 2011. The project completion will be in December 2012 including the O&M period of 18 months. The works contract is a design and build Contract which comprises sewer network, force main, pump stations, treatment plants and sea outfall. Supervision contract is in progress with the works contract.

121 families lived in the treatment plant site at Ratmalana were resettled in order to commence the construction of wastewater treatment plant. The study for house connection and off-network sanitary solutions is in progress and the World Bank appointed consultant has submitted the inception report in November 2008.The Pre-implementation study & design of the ecological sanitation pilot project has to be hold on until the first review report on the World Bank study been received, since some of the study components overlap with the World Bank study area. The overall physical progress is 22% at the end of 2008.

PROJECTS UNDERTAKEN WITH JBIC ASSISTANCE

Kandy City Wastewater Disposal Project

This is a new project of period from 2007 to 2013. 55,000 resident population and 150,000 migrant population in Kandy will be benefited from this project. Effluent discharged details are as follows;

Biological Oxygen Demand (in 5 days at 20 ^{0}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 Kejaldhal Nitrogen should be less than 100 mg/l and Feacal Coliform (Most Probably Number per 100 ml) should be less than 40.

Soil investigation near Maligawa

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 724 hectares of the city and then divert to a treatment plant of capacity 17,000 cu.m./day through a network of 109 km long pipe lines. Physical progress of the project at end of 2008 is about 6%. Treatment process is extended aeration and total Cost Estimate is Rs. 14,645 million.

PROJECTS UNDERTAKEN WITH AUSTRIAN ASSISTANCE

Colombo Sewerage (Southern Catchment) Rehabilitation Project

This project is a rehabilitation of existing sewer system with project period from 2007 to 2010. About 180,000 people of Souther part of the Colombo City will benefit from this project and 25,920 cu.m./day is the handling capacity. TCE is Rs. 2,222 million.

Attending to a manhole rehabilitation
Little picture shows the manhole before cleaning

The objective of the project is to improve the collection and removal efficiency of wastewater generated in the Southern catchment of Colombo city. The entire project is being executed by M/s. Angerlehner Hoch-und Tiefbau Gasellschaft mBH through a contract on design and build basis.

The main scopes covered under this project are rehabilitation of two main sewer lines approximately 7.6 km in length, leading to Wellawatta pumping station and construction of new pump house at Wellawatta. Status of the project at the end of 2008 are; almost 4.2 km sewer lines have been rehabilitated along Galle road, Duplication road, Havelock rRoad, Devose Avenue and Vajira road and three out of the six sections to be rehabilitated, have been handed over back to the CMC for operations, 39% of man hole rehabilitation is completed, 95% of design works of the Wellawatta pump house is completed and piling works of the Wellawatta pump house is in progress. 75 % of piling works have been completed. Physical and financial progress at the end of 2008 is 42% and 48% respectively.

PROJECTS UNDERTAKEN WITH DANIDA

ASSISTANCE

1. Greater Kurunegala Water Supply & Sanitation Project

Water supply part of the project is an augmentation for Kurunegala municipality area and suburbs serving 64,000 people (1 km outer radius) while sanitation part is a new one for Kurunegala municipality area serving 32,000 people. The total project period is two years.

Water source is Deduruoya, treatment capacity is 11,000 cu.m./day and process is full treatment. Wastewater treatment capacity is 4,500 cu.m./day and process includes Upflow Anaerobic Sludge Blancket (UASB) reactors and Tricking filters with which effluent characteristics would be maximum Biological Oxygen Demand 30 mg/l and maximum Chemical Oxygen Demand 250 mg/l. TCE is Rs. 7,759 million and awaiting for foreign funds. Conceptual designs and land clearance etc. have been done and Rs. 84 million has been spend for the preliminaries.

The project scope includes augmentation of present Water Treatment Plant with new intake at Deduruoya to cover new 25 GN divisions in Kurunegala PS areas plus upgrading of existing water system and construction of sewer network and wastewater treatment plant to cover part of Kurunegala municipal areas including city centre and other densely populated areas.

2. Colombo Sewerage Rehabilitation Project

This is rehabilitation of part of Colombo sewer system serving improvements to 350,000 existing and 50,000 new beneficiaries. Pumping capacity is 250,560 cu.m./day. This project started in 2005 and completed in the end of 2008. Total cost estimate is Rs. 3,300 million.
Three project components are;

i. Designing the civil works, and building the Madampitiya pumping station, including the design and installation of 4 dry well submersible pumps (total capacity 2.2 cumecs), electricity sub-station, grit collection, bar screens, an overflow pump of minimum capacity 0.7 cumec, pumped emergency/storm overflow (min. flow 0.7 cumec) and cleaning the pumping main.
ii. Designing and undertaking the structural and hydraulic rehabilitation of main man entry sewers leading to the Madampitiya pumping station (5.7 km) and non man entry sewers from St Michaels road to Hyde Park Corner and Hedges Court to T.B. Jayah Mmwatha (1.7 km) and all associated manholes. Designing and rehabilitation/replacement of the "Austin Place - Norris Canal Sewer" (1.9 km) from Austin Place to Hedges Court
iii. The design and rehabilitation of the main sewage pumping station at Peterson Lane (S8) including installation of 3 dry well submersible pumps, (total capacity 1.7 cumecs), primary screens, and cleaning the pumping main.

Madampitiya pumping stattion

Conveyance of Water to Customers is Costly.

Water has to be pumped to reach customers. Energy costs are high. Therefore water should not be allowed to leak or get wasted.

It Costs to Purify Water; Let's Use it With Care...

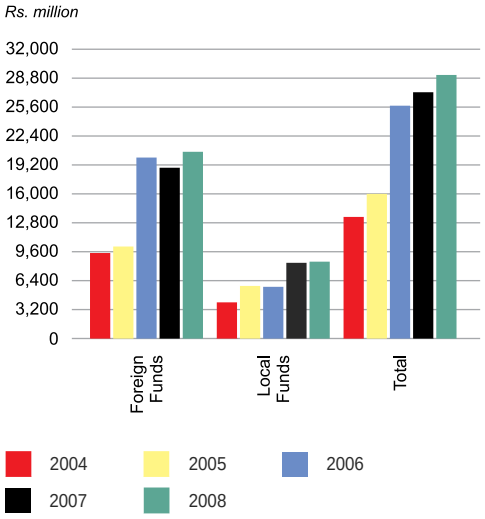
Development Works

"Capital fund utilization stood at 87.0% in 2008, placing the NWSDB among the few public sector organizations to have made satisfactory use of their allocated capital funds, as in 2007"

FINANCIAL SOURCES

The NWSDB was provided with Rs. 17,401.0 million as foreign funds for capital works. The GOSL contribution was Rs. 6,121.0 million as counterpart funds. In addition, Rs. 1,540.6 million of local consolidated funds was allocated for small and medium water-supply projects. For the reconstruction of tsunami-affected water supply systems, a sum of Rs. 3,250.0 million in foreign funds and Rs. 837.0 million in local counterpart funds was provided.

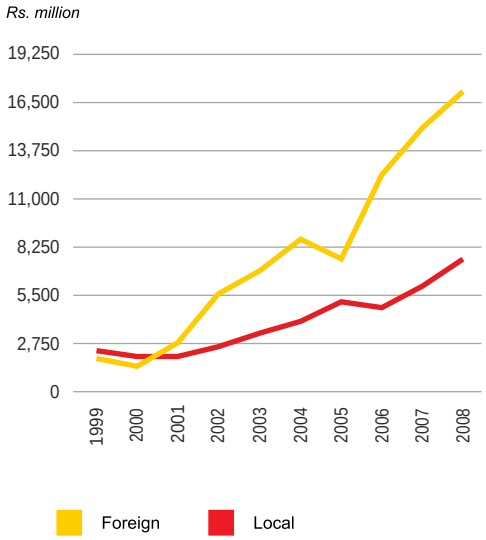
CAPITAL BUDGET ALLOCATIONS



UTILIZATION OF CAPITAL FUNDS

Capital fund utilization stood at 87.0% in 2008, placing the NWSDB among the few public sector organizations to have made satisfactory use of their allocated capital funds, as in 2007.

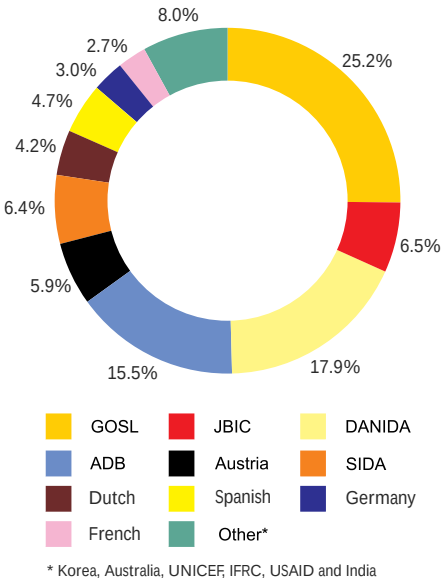
CAPITAL FUND UTILIZATION



COMPARISON OF CAPITAL FUND UTILIZATION 2007/2008

Description	2007		2008	
Foreign Component (Rs. million)	15,028	79.6%	17,394	84.2%
Foreign Aid Related Domestic Component (Rs. million)	4,501	78.3%	6,421	92.3%
Consolidated Funds for Local Projects (Rs. million)	1,558	59.4%	1,546	100.4%
Total	21,088	77.4%	25,361	87.0%

FOREIGN AID CONTRIBUTION BY DONORS AND RELATED GOSL FUNDS



* Korea, Australia, UNICEF, IFRC, USAID and India

REHABILITATION AND IMPROVEMENT OF EXISTING WATER SUPPLY SCHEMES

The NWSDB continued to rehabilitate and improve existing water supply schemes using Rs. 53 million of its own finances in 2008. These funds were used to improve the quality and quantity of water supplies, maintain NWSDB assets and undertake related support services in operational activities. Priority was given to improvements in schemes where donor assistance or major funding was not available.

RURAL WATER SUPPLY AND SANITATION

Community Water Supply and Sanitation Projects

Two large scale community participatory rural water supply projects were implemented, viz. third water supply and sanitation (sector) project (TWSSP) and secondary towns and rural community based water supply and sanitation project (more details in page 26). Improved water supply facilities were provided for 1,000 GN divisions in six districts, Anuradhapura, Puttalam, Kegalle, Kalutara, Hambantota and Monaragala under the TWSSP. A summary of households benefited is as follows.

Small town water supply schemes (47 nos.)	62,000
Rural pipe water supply schemes (486 nos.)	72,000
Common dug wells	13,000
Individual dug wells	21,000
Rain water harvesting tanks	12,500
Hand pump tube wells	10,000

In addition to the water supply facilities, 81,569 household latrines were provided and 210 institutions were provided with new sanitation facilities, benefiting about 449,980 persons. Total cost of the above facilities was about Rs. 6,500 million.

Establishment of Rural Water Supply Units

More than 3,000 small scale rural water supply schemes constructed by various government and non governmental organizations exist in the country. They provide water to about 8% of total population of Sri Lanka. At present there is no clear system to provide necessary assistance to them. As sustainability of them is very important in the context of achieving Millennium Development Goals on water supply, NWSDB has taken a positive step in assisting them. Accordingly, the NWSDB has decided to establish rural water supply units attached to regional officers throughout the island to provide necessary back up support for communities who run their own water supply schemes. 12 units were established on pilot basis in 2008 and another 4 will be established during 2009. They consist of limited staff and their expenditures are met through the operational budget of the NWSDB.

The UNICEF has agreed to provide capacity building assistance for the establishment of rural water supply units.

Puttalam Housing Project

There are about 78,000 persons belonging to 15,800 families living in 141 welfare centres in Puttalam district. They are internally displaced people (IDP) who fled Mannar area due to the disturbances about 16 years ago. At present they occupy temporary or semi permanent houses spread in Puttalam, Kalpitiya, Mundalama and Wanathawilluwa Divisional Secretaries' areas and suffer due to the lack of basic facilities. A World Bank funded project is being implemented in order to provide houses and other infrastructure facilities for them. The total cost of the project is US $ 32 million out of which US $ 12 million will be for infrastructure facilities.

The NWSDB has undertaken the provision of Consultancy Services for Water and Sanitation facilities under the project. All camps have been divided into 36 clusters in order to provide with water supply. They will be provided small scale rural water supply schemes using ground water as the source. While the project will provide funds for the construction of all WSSs, the user community will undertake O&M of the proposed schemes.

As the water table in the area is high, normal toilets cannot be constructed for houses. Hence special attention has to be paid in providing sanitation facilities. The NWSDB will provide necessary guidance and training for construction of toilets suitable for the area.

GROUNDWATER

During the year under review, the work related to ground water activities were, completion of 396 hydro-geological investigations, 328 tube wells (deep and shallow), 83 pumping tests, 285 Hand pump repairs, 40 hand pump rehabilitations, 58 hand pump installations, 179 well cleanings, 27 wells developments, 3 water jettings, installation of an iron removal plant for hand pump well and special investigations.

Out of 287 deep wells drilled for providing water supplies for dry zone rural communities during the year, 224 were successful resulting in a success rate of 78%.

A programme for monitoring quantity, quality and water level fluctuations of groundwater intake wells has been arranged for which a steering committee has been appointed and initiated work.

Water supply well drilling and hand pump installation project in conflict-affected areas of Ampara and Batticaloa districts

This is a new project to benefit about 2,800 families in small, remote rural communities that are unlikely to be provided with pipe water supply systems in the near future in Ampara and Batticaoa districts. It is proposed to complete successful hand pump fixed tube wells, 160 in Ampara district and 96 in Batticaloa district. The target will follow hydrogeological investigations, 160 in Ampara district and 136 in Batticaloa district to find out suitable locations. Total cost estimate for phase I and II are Rs. 5 million and 29 million respectively funded by UNICEF. Financial problems for day to day activities and mobilization delays of drilling rig from regional Groundwater offices were affected the progress of work. Physical progress was 174 tube well drillings and 40 hand pump installations while financial progress at December 2008 was 37% including for Geographical Information System (GIS), Geographical Positioning System (GPS) and geophysical training.

RESEARCH AND DEVELOPMENT

The R&D Section conducted the following activities in the year under review.

- Tri halo methane (THM) study - Joint project on Trihalo methane determination in the Greater Colombo distribution system as formulated along with testing facilities available in the ITI. The project will be implemented in 2009 upon negotiations with the ITI.

- Pollution study at Bomurualla, Nuwara Eliya - Joint research study with University of Sri Jayawarenapura on contamination of Bomuruella reservoir of Nuwara Eliya was initiated in 2008 as demanded by the Planning and Design section of the NWSDB. It is observed that pesticides, hospital wastes and leachate are threatening the safety of Bomuruella water where water intake of Ambagasdowa water supply scheme is located downstream. Initial samplings were done and the project will continue in 2009.

- Upgrading ambient water quality standard - Study of Kelani river pollution due to industrial pollution and updating the current SLS 722, 1985 "Tolerance limits for inland surface waters used as raw water for public water supply" considering current European standards. This is important as it has been identified that pollutants such as polyaromatic hydrocarbons, textile dyes, surfactants and pesticide are recently identified as main polluting compounds in the Kelani river water which may cause chronic illness among the water users. A joint study is being implemented with CEA, Open University and the University of Kelaniya with the assistance of JICA senior volunteer Mr. Yoshiki Goto. The Open University has offered HPLC facility for testing. Study being done to identify what parameters to be tested and whether testing facilities are available at different organizations. The work will continue in 2009.

- Developing a sand sieving machine - At present there is a problem of getting graded sand for slow sand and rapid sand filters. The R&D section studied this problem and identified that the problem is due to lack of knowledge among suppliers on sand preparation. We have identified two methods of filter sand preparation, namely blending and sieved sand and direct sieving from a stock pile. We are progressing towards making a simple sand sieving machine to popularize the filter sand preparation process. Purchases are completed and fixing the machine will continue in 2009.

- Joint study with NRW Section on pipe joint leakages - A joint study has been initiated on leakage of old Cast Iron pipes and at PVC pipes of different manufacturers including unbranded pipe fittings sold in the market. The study will continue in 2009.

- Pebble matrix filter project, Kataragama - This project is funded by the Word Bank under the "Development Market Place" competition which was awarded to Sri Lanka. The concept is to reduce the turbidity of raw water by about 90% without using chemicals using sand embedded pebble filter. This is recommended ideal pretreatment for slow sand filter. Two filter units of 4.5 m x 4.5 m were constructed during this year. This operation revealed that about 50 -60% of the turbidity could be removed by the these filter units. The present results are not up to the expected outcome of 90% removal. As the head loss development too was not up to the expected

Pebble matrix filters at Kataragama

levels, further experiments will be done during 2009 using available 1m x 1m model filter unit made under NERD assistance. Future studies will focus on using available rock material instead of pebble for matrix filtration.

- Study on rain water quality -Rainwater harvesting system was established for the Building complex at Thelawala in this year with 4 cubic meter storage. Rain water is physico-chemically up to drinking water standard except for the high coliform levels. Rainwater shall be treated to remove coliform if required to use for drinking purposes. Disinfection and domestic slow sand filtration are available options which are being investigated. The study will continue in the year 2009.
- Sociological research on piped water supply in Sri Lanka - This research study was completed by the University of Colombo during this year. Objectives of this study were identification of population growth rates in relation to migration trends, consumer satisfaction, consumer needs and attitudes. This study was highly appreciated by the senior staff as the content was rich in feed back from general public on NWSDB activities. It was reported that population growth rates vary from 1-2% in general and exceptionally high 5-6% in Embilipitiya, Monaragala and Udawalawe. The report contained many problems faced by consumers. Corrective action will be taken by relevant regional offices of NWSDB and this study will be repeated in about four years time form now to reassess any changes.
- Improvement of Water Treatment Process of Puttalam Water Supply Scheme - The existing Puttalam Water supply Scheme was commissioned in Year 1993.The design capacity of the scheme is 7000 cu.m./day. The raw water is extracted from deep bore holes as well as from Mee Oya. Several problems are identified in the treatment process especially in the no valve filters. Filter sand in one filter unit has been hardened due to incorrect acidity level of the raw water. The original green sand filter media was replaced by the local sand and that also got hardened. The alkalinity, hardness, Manganeese and iron content are high in the raw water. According to the laboratory experiments, it has been identified that softening of water will address the problems prevailing in the treatment process. The study plan was to identification of treatment process by laboratory experiments and to run a pilot plant at the site. The study is funded by ADB and the output will be utilized for the ADB improvement proposal for Puttalam water supply project. The process determination laboratory tests have been completed and the model is being constructed. The work will continue in 2009.
- Experiment on Gravel bed flocculation - Gravel flocculation concept has been researched in 1980s in the Asian region and has been not implemented in Sri Lanka. This concept is very useful with respect to low energy consumption and low maintenance needs due to its simplicity. NWSDB has done a similar study in 1984 but has not been implemented. It has been proposed to do a practical implementation of gravel bed flocculation using the filter columns donated by JICA. The columns are being reinstalled at Ambatale the testing facility is being refurbished and it will be used for trial runs of gravel bed flocculation of river water. The shifting of the filter columns from Kalatuwawa to Ambatale has been done and part of the installation has been completed. Trial runs of gravel bed flocculation will continue in 2009.
- Use of Polyaluminium Chloride (PACl) as a flocculant in water treatment - As there was a sudden price increase of alum there was a need to identify alternative coagulant. Laboratory experiments by R&D section before this price increase made it conclude that PACl was economical to be used for high turbid and high color waters. This was tested and implemented for Konduwatuwan water supply scheme. Subsequently it was found that it was about 30 to 50 % cheaper to use PACl for Ambatale, Kalatuwawa and Labugama compared to alum according to the prices of these two coagulants prevailed in the year 2008. Jar testing will continue along with price variation data of alum and poly-aluminium chloride to determine which flocculant is most suitable for each type of raw water throughout the country with respect to economy and final water quality. This study will continue in 2009.

WATER QUALITY

Implementation of a Water Quality Surveillance Programme

A programme on Water Qaulity Surveillance was launched in 2006 for which the NWSDB and Ministry of Health are key players. The National Steering Committee responsible for the implementation of this programme met three times in 2008. Three training workshops were held, one in Colombo (at the NWSDB's Training Centre) for the senior staff and two others in Kurunegala and Ratnapura for the Regional Managers, Chemists and Sociologists to be aware of our obligations. It was decided to prepare detailed water safety plans for one scheme run by the NWSDB and another managed by a CBO by every Regional Office of the NWSDB.

District Water Quality Surveillance Committees were formed in Kurunegala, Hambantota and Matara together with staff of the Health Department. Water used for drinking from domestic wells, hand pumps, CBO schemes and NWSDB schemes will be tested regularly and the information shared among all concerned. The NWSDB will allocate funds for water quality testing purposes.

Water Quality Monitoring by the Central and Regional Laboratories

Raw water and purified water samples are tested for basic chemical, physical and microbiological parameters, as appropriate. In special cases, water samples were tested for Total Organic Carbon (TOC), metal/ heavy metal and algae. Results are scheduled on monthly basis for the review of respective provincial DGMs and other sectional heads and any remedial action. Wastewater quality analysis is also done for wastewater treatment plants operated by the NWSDB. The quality of chemicals used for water purification is also tested before accepting the stocks. These tests are carried out on Alum, Lime, Poly Aluminium Chloride (PAC) and Bleaching Powder. Pesticide residue testing in drinking water smaples was commenced during the year. Also, analysis for dissolved TOC was carried out from this year. In order to investigate the contamination by pesticide residues in drinking water reservoirs, studies were done in Nuwara Wewa in the North Central province. Algae analysis was also carried out in several reservoirs used as sources.

Water Pollution at Intakes

Highlighted below are some cases of water source pollution, mainly due to human activities.

The water quality in Kurunegala Lake, which is one of the two intakes of Kurunegala WSS is getting deteriorated due to growth of algae as a result of continuous accumulation of nutrients such as Nitrogen and Phosphorous getting into the lake. This is coursing water quality problems in the lake and difficulties to purify water in the conventional methods. Domestic, industrial (small scale) and agricultural wastes are flowing in the lake through surface drainage. Proper management of solid wastes and waste water around the lake catchment is not available. In fact, waste water treatment facility is not available for the municipal area. Proper environmental monitoring methods for collection of data related to lake water levels, water quality, release of bottom sediments from time to time, rainfall measurements etc are not established. Such data will be very important to analyze the trend of water quality and quantity. Solving these issues will assure the sustainability of the lake.

Maguru Oya, the intake of Wariyapola WSS is highly polluted owing to the inflow of water from Boo- Ela, which is passing through the Kurunegala Municipal area. There is no waste water treatment for the municipal area. All wastewater and some solid wastes, especially hospital wastes, service stations, etc. are directly discharged into the Boo-ela. Due to this, treating of water to meet the drinking water Standards is difficult and costly. Raw water quality of Ma Oya and Mee Oya become worse during rainy seasons due to environmental pollution along the stream. Ma Oya is the source for Polgahawela, Alawwa, Giriulla and Pannala WSSs while Mee Oya is for Galgamuawa WSS. Treatment process of Polgahawela and Galgamuwa WSSs should be upgraded to cater for this raw water quality. Proper awareness programmes should be implemented through multidisciplinary approach to minimize the pollution of the water resources.

Cleaning of the intake well at Mee Oya, one of the two sources of Puttalam WSS is difficult due to the continuous flow from surrounding shallow wells. Hardness, Alkalinity and Manganeese levels are high in the raw water of the boreholes, which form the other source of Puttalam WSS. Due to this chemical composition, water forms scale and gets deposited in pumping mains, treatment units and distribution mains. This will lead to further scale formation in distribution mains as the supply is intermittent and breaking of deposits after resuming supply causes poor quality water and recurrent pipe bursts, leakages and meter damages. Erosion of river banks in Kuda Oya and Deduru Oya water sources of Gokarella and Rambadagalla WSSs are high due to environmental effects such as sand mining and floods. The filtration systems at intake well and the treatment processes should be upgraded for these two schemes. Iron level of raw and treated water of Dambadeniya WSS is high. This problem has to be solved by introducing a proper iron removal process to the treatment process.

Iron level of the source of Wannigama WSS is also high. Fluoride level of the source of Udagama WSS is slightly higher than the acceptable level. A solution should be found to prevent the pollution of boreholes, the source of Nattandiya WSS owing to inundation during rainy season. This inundation takes place because the solid waste traps get blocked during heavy rains and the Hamilton canal overflows.

The Treasury has allocated Rs. 10 million in the Capital Budget for 2009 for Catchment Protection and prevention of pollution at sources as a vote of the MWSD.

INFORMATION TECHNOLOGY

Works involved by this section in addition to IT solution project were; online payment system, the call centre, computer hardware maintenance and the wide area network covering all regional offices. The work in connection with the enterprise-wide IT solution was in progress during 2008. The enterprise-wide IT solution project is financed by the Indian line of credit. The contract was awarded to M/s. CoOption Technologies Ltd., India in December 2003 for a sum of US $ 6.4 million. The contract was renegotiated and re-awarded in February 2005 for a sum of US $ 4.64 million, after re-defining the scope of work. The NWSDB contribution was US $ 0.66 million. The final amount payable under Indian line of credit was US $ 3.98 million. The scope of work included design and development of customer information system, customer grievance system, supplies, purchase and inventory system, financial accounting, asset management system, human resources management system, billing system, payroll, maintenance and repairs system, NRW, production and water quality system. The pilot and implementation phases were in progress during 2008 including amendments to the solution. Implementation was done in Head Office, main stores, Greater Colombo area, Kandy and Ratnapura. The solution is being deployed to the regions such as Galle, Matara, Hambantota, Anuradhapura, Kurunegala etc. Although staff training had been provided further requirements have been identified. This additional training will be undertaken by NWSDB staff. The physical progress was 97%. The solution will be deployed island-wide before end of March 2009.

CONSTRUCTION SUPERVISION/ MONITORING

Construction section in head office monitored the financial progress and physical progress of the decentralized capital projects handled by RSCs. Based on the findings, the Board management was informed in time, on the physical and financial progress of the GOSL funded projects. Also, top management was recommended with actions necessary for effective and efficient use of the local capital budget. Furthermore, this section advised the RSCs on contractual issues whenever necessary. AGM (Construction) participated in Special Technical Evaluation Committee meetings convened by all the Addl. GMs during the year. Boossa prison camp waste water disposal system was commissioned. Contractual matters related to the Chico treatment plant were sorted out successfully and the works have achieved substantial progress during the year and are nearing completion now. Handing-over of Modarawila sewerage system is yet to be finalized. This section started to prepare a contract administration manual for usage of contract administrations and project managers.

SOCIOLOGICAL ANALYSIS

A sociological unit was established in the Policy and Planning Division headed by the Chief Sociologist. The role of the Sociologist and the list of duties were prepared. Project proposals for new investment for water supply and sanitation contained sociological analysis in addition to the technical and financial analysis. With this an view, the steps to be followed for sociological analysis in feasibility studies were spelt out in the Manual for Planning and Feasibility Studies being revised. It is intended to carry out economic analysis as well, in future. The Sociologist is also involved in public awareness programmes and interaction with consumer groups carried out by the NWSDB.

PERORMANCE OF PROVINCIAL OFFICES

Development work on water supply and sanitation facilities carried out in the Provinces have been included in appropriate sections depending on the sector, funding source and status of the work. New projects are originated from the Provincial Offices. As representatives of the Project Review Committee, the Provincial Staff closely coordinate the implementation of new projects. Highlighted below, are activities carried out in addition to those.

Western Central

Water supply system modeling was started in TEC (North) area. Feasibility studies for water supply sector planning were started in TEC (South) area. Regional Coordinating Committee meeting met monthly, during the course of the year under review. Construction of a new office building at Pelewatta for the RSC (Western Central) was commenced. A new office building for AE (Maharagama) and OIC (Maharagama) were completed.

Western South

A pilot project for NRW reduction was commenced in Moratuwa Area. This increased supply hours by 2 hours in Manager (Kalutara) region and reduced NRW by 1% in Manager TSC and Kalutara regions. 5,000 m of Cast Iron pipes have been replaced with PVC pipes in Manager (TSC) region. 1,000 m of Asbestos Cement pipes have been replaced with PVC pipes in Kalutara region. 70 km pipes have been laid in Panadura region as extension to the distribution system. Information Technology Solution Programme was initiated in the Manager (TSC) region. Awareness and training progrmmes for Meter Readers, Clerks and Data Entry Operators have been conducted. New office buildings for Manager (Panadura-Horana), Area Engineer (Bandaragama) and OIC (Bandaragama) were constructed and opened at Panadura and

Bandaragama. A new record room for the AE's office (Dehiwala) was constructed and inaugurated. Purchased a land with a building for OIC (Aluthgama). Action has been initiated to construct an office for DGM (Western-South) office at Soysapura and AE (Moratuwa) at Moratuwa.

Western North

A new office for DGM (Western North) was established at Kadawatha in April 2008. One day Institutional Development Work Shop was held at Human Resources Management Centre in Yakkala with 100 staff members.

Southern Province

87 small WSSs in 9 PS divisions in Hambantota District, benefiting about 35,000 families with 26,277 WS connections were being operated by CBOs. 6 CBO and 2 CWS schemes were combined with the NWSDB system on the request of the consumers and this extended the operational area of the NWSDB. Also, 88 extensions of 56 km length, valued at Rs. 7.2 million were completed during the course of the year under review in Hambantota region, serving about 12,000 people. Rehabilitation of Karagoda Uyangoda and Malimboda WSSs were completed at a cost of Rs. 122,475. Occasionally water was shared with Galle Municipal Council, feeding it's distribution system from Greater Galle WTP.

Eastern Province

Completed Rain Water Harvesting Tanks and Shallow wells were provided for internally displaced people due to the on going conflict and Tsunami. Rajagalathenna WSS operated by CBO was commissioned. Some major difficulties came across during the year under review were; the Algae problem in the intake at Konduwattuwan WTP, filter problems in Ampara and Samanturai WTPs, and raw water shortage in Kalmunai and Thirukkovil WSSs. Kalmunai OIC office and Akkaraipattu Circuit Bungalow were opened. Extension of Manager (Akkaraipattu) office was in progress and is expected to be completed in April 2009.

North Central Province

Sivudisagama WSP - Sivudisagama is a housing scheme with 100 houses. There are 3 bore holes to provide drinking water to this area, but they dry out often. Hence, this new scheme was proposed. Water source is a bore hole with 60 cu.m./day yield. This water will be aerated and filtered. TCE is Rs. 6,073,415 and the UNICEF has agreed to fund. The work was going on with a physical progress of about 10%.

The RSC has completed 46 rechargeable works of Rs 12.5 million, improving water supply in the area, serving about 3,400 people additionally. New office area was constructed for the planning and design section in 2008 and the staff will move to the new area on January 1st 2009. Awareness programmes were held on disciplinary action and positive thinking.

Central Province

Water safety plans are being prepared for Gampola, Hantana and Polgolla WSSs. Phobia of water poisoning at Wakarawatta can be mentioned as a problem faced in the year under review.

North Western Province

Eight water supply and 2 water supply & sanitation projects were formulated during the year under review. Rahamathnagar WS and Puttalam WS Improvement Project were carried out by the RSC assisted by the UNICEF. 213 small WSS in Kurunegala District and 159 small WSS in Puttalam District are operated by CBOs. Construction of a Package WTP for Alawwa WS, was started and about 60% of the work was completed as at December 2008.

Sabaragamuwa Province

Workshops and meetings with CBO leaders were held on the sustainability of RWS in Ratnapura and Kegalle Districts. Also, workshops were held on catchment protection. Land issues in Hemmathagama and Galigamuwa WSSs, water sharing issues in Udawalawa and Embilipitiya WSSs, sand mining problems in Ratnapura and Ruwanwella WSSs and source pollution in Nivithigala, Pelmadulla (Kirndiella) and Eheliyagoda WSSs were handled during the course of the year under review.

Northern Province

About 2,000 people in Sanguveli and Kaddudai villages, situated at Sandilipay DS division will benefit by the Augmentation of Chunnakam WSS. Water source is boreholes at Pokkanai of capacity of 150 cu.m./day. The project consists of construction of intake, supplying and laying of pumping main and distribution system and supply and installation of pumps and chlorinator. Total cost estimate is Rs. 3.9 million and funds are from the rehabilitation budget. Distribution network was completed and construction of intake was in progress.

Uva Province

Rehabilitation of WSSs were carried out using total sum of Rs. 53 million. A study was performed to identify the water pollution threats of the Bomuru Ella at the intake of the Ambagasdowa WSS.

Our Employees, Our Strength

"NWSDB's Manpower Development & Training Division continued to provide training opportunities to employees during 2008, as in the past"

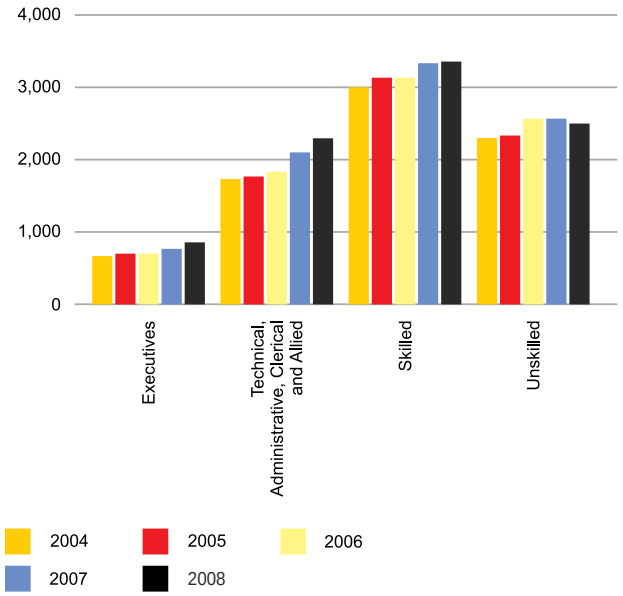
STAFF STRENGTH

	Staff	2007	2008	Variation (%)
(a)	Permanent*	8,021	8,638	7.7
(b)	Casual	413	198	(52.1)
(c)	Contract	305	147	(51.8)
(d)	Trainee	29	23	(20.7)
	Total	8,768	9,006	2.7

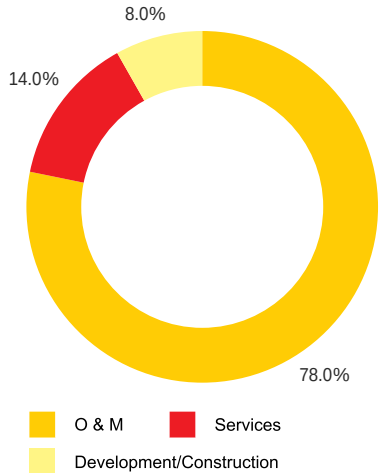
** The permanent staff figure excludes staff recruited for foreign funded projects*

Distribution by Key Job Function

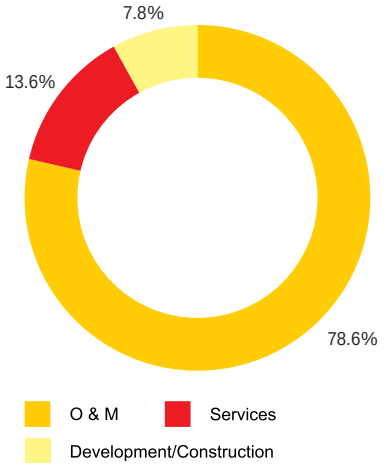
There were 305 contract and 442 casual and trainee employees in addition to a permanent staff of 8,021 at the end of 2008. Most contract employees were recruited for work on foreign funded projects.



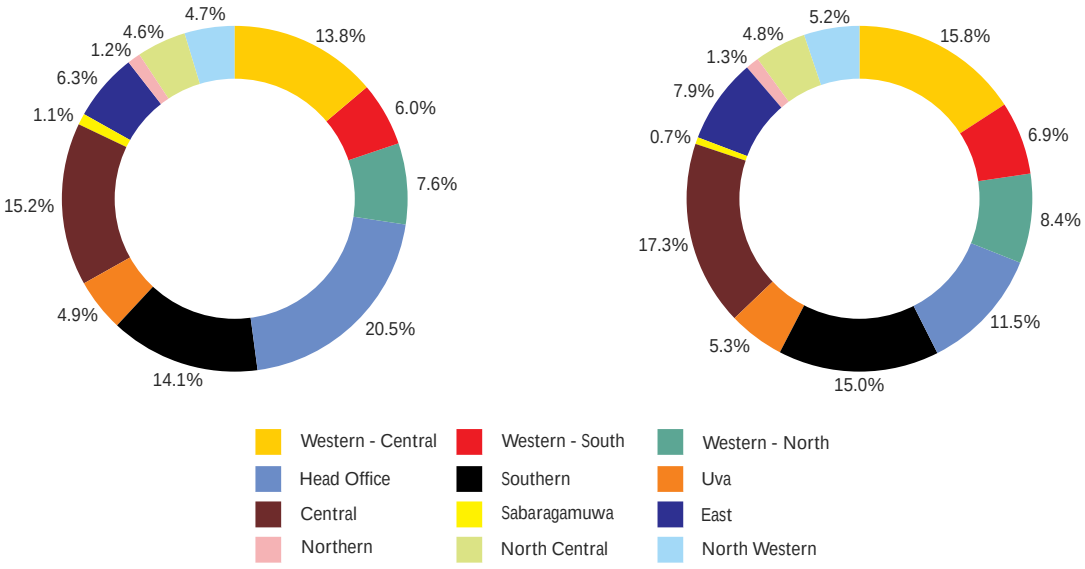
STAFF DISTRIBUTION BY
KEY JOB FUNCTIONS - 2007



STAFF DISTRIBUTION BY
KEY JOB FUNCTIONS - 2008



STAFF DISTRIBUTION BY LOCATION - 2007



STAFF DISTRIBUTION BY LOCATION - 2008

STAFF REMUNERATION AND BENEFITS

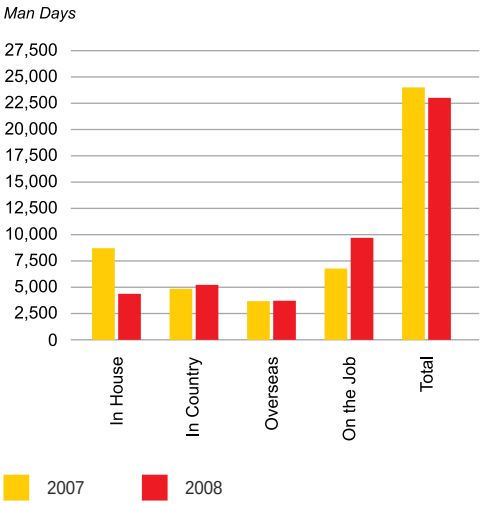
Comparison of Staff Remuneration in 2007 and 2008

Description	2007 Rs. million	2008 Rs. million
Salaries	3,070	4,247
Contribution to Employees' Provident Fund	308	374
Contribution to Employees' Trust Fund	78	93
Total	3,456	4,714

Staff Benefits

- An annual bonus of Rs. 23,000 inclusive of a productivity incentive was paid.
- Encashment of unused medical leave was continued.
- 4,312 concessionary loans (4,160 ten-month loans and 152 twelve-month loans or approximately Rs. 836,988,420) were disbursed among employees.
- 409 employees were felicitated for their unblemished services at the world water day ceremony held in Bandaranayake Memorial International Conference Hall (BMICH) in 2008.
- Approximately Rs. 2,430,409 has been spent for medical expenses of employees for in-door and out-door treatments.
- 708 casual or contract employees have made permanent in this year.
- Transport facilities are made available to the officers at a concessionary rate.
- Death donation to the permanent employees.
- Local or foreign training facilities to the employees.
- Tea allowance of Rs. 500 for employees

MANPOWER DEVELOPMENT AND TRAINING



The Manpower Development & Training Division continued to provide training opportunities to the employees of NWSDB, during 2008, as in the past. Training programmes were conducted to cover all categories of staff from managers up to operative staff. Based on the priority training needs identified through the senior and the line managers, employees in various categories were provided with the training through the following approaches:

Formal In-house Training Courses, Seminars and Workshops

This division conducted 105 In-house training courses in 2008, where 612 Managerial Staff, 396 Supervisors, 137 clerical and allied grades, 250 operatives and 701 mixed group employees were included in these courses. Programme content related to following areas;

- Water Quality Monitoring
- Water and Waste Water Treatment
- Energy Conservation
- Modern Surveying Technologies
- Construction Management
- Vehicle Maintenance
- Report Writing
- Auditing
- Disciplinary procedures
- Financial Rules & Regulations
- Accounting Standards
- Material Management
- Commercial Activities
- Clerical Skills
- Computer Applications
- Management Skills
- Induction programme for New Recruits
- Awareness and Refresher programmes

Training at other Training Institutions in the country

272 employees received training externally through local training Institutions. This includes Masters and Postgraduate programmes conducted by local Universities and Diploma and Certificate courses conducted by Institutions such as National Institute of Business Management, Institute of Personnel Management, Sri Lanka Institute of Development Administration, Center for Housing, Planning and Building.

Overseas Training/ Official Visits

Overseas Training was provided to 129 employees of the NWSDB including official visits for 60 officers in respect of inspection visits, meetings etc.

On-the Job Training

On-the Job training was provided to 79 Apprentices (Undergraduates, Special Apprentices, National Diploma in Technology (NDT)/ Higher National Diploma in Engineering (HNDE) trainees and Craft Apprentices and Technical College trainees and National Apprentices & Industrial Training Authority (NAITA) Trainees.

Special events during the year

- Training programmes were conducted In-house by getting the services of external experts in the areas of administration and communication. This has reduced the In country external training cost by about Rs. 0.5 million.
- A Seminar on "Construction Project Management has been conducted for contractors' engineering staff on fee basis in view of improving the efficiency and quality of construction activities by enhancing contractors knowledge and skills.
- A training programme on plumbing for unemployed youth in Moratuwa Area was conducted in association with the Rural Water Supply Section.

New Focus

- To developed a basis to select non-engineering staff for overseas training.

Special Focus

> *"The Corporate Plan for 2007 - 2011 addresses the issue of UFW reduction under goal 2. Action plans have been drawn up and detailed activity lists were prepared for 2008 along with the costs involved"*

Reduction of Unaccounted For Water (UFW)

The Corporate Plan for 2007 - 2011 addresses the issue of UFW reduction under goal 2. Action plans have been drawn up and detailed activity lists were prepared for 2008 along with the costs involved. The provincial offices were implementing the activities thus identified as follows;

Action taken to reduce UFW in the Western Province

A project proposal for 5 year UFW Reduction strategic approach for Western Province was prepared and Board approval was received. Report has been sent to the National Planning Department for their clearance with a copy to External Resources Department for seeking funds. In this project proposal there are 8 action paths and some are already in progress.

i. Review Organization Arrangement of Colombo City Distribution Management and to re-organize -
Document on rearrangement of Colombo City distribution management has been prepared in detail after discussion with operational staff. Duties and responsibilities of Managers, Area Engineers, OIC/Engineering assistants has been agreed. Demarcation of boundary of each Area Engineer is completed. Necessary staff, office etc had been identified with the intention to commence full Implementation from 1st January 2009. Procurement of field equipment and renting of offices are in progress.

ii. Implement Pilot projects as many as possible in order to enhance capacity building and create awareness among entire staff -
Pilot areas have been selected in Colombo 6, Battaramulla and Kotte areas. There are many staff involvements in various aspects of NRW. Monthly progress monitoring meetings are held and the experience is shared. Awareness has been created among staff.

iii. Initiate one or more projects in Colombo City to replace pipes in Colombo City which are beyond economical repairs -
To replace 120 km of deteriorated pipes a consultancy contract has been awarded. Consultants have identified the area for pipe replacement. Tender document are under preparation for calling of tenders to procure the material and for replacement. Necessary funding has been identified from JBIC loan.

iv. Review strength of the NRW Section and take steps to strength it to play the role of NRW Management Effectively - JICA has offered to provide Technical Cooperation in 2009. There would be an expert for 36 months, who would be working in the field and providing training to the NWSDB staff. Two pilot areas are identified. All Engineering Assistants have been identified for training on a rotational basis.

v. To prepare work program for activities in preventive approach in order of priority -
One of the identified functions of Manager (Development) in Colombo City is carrying out preventive maintenance work. Detailed work program is being finalized. When work program mentioned in Action path 1 above becomes operational then this would become implementable.

vi. Review of Specifications
Specifications of water meters, ferrules, stop taps have been reviewed by a committee. In addition, following up UFW Reduction activities closely is being continued.

- Seven pilot projects are being implemented and closely monitored. There is significant reduction of UFW in most of the pilot projects. The seven pilot project areas are Summit Flats, Mattegoda, Rukmalgama, Moragasmulla, Raddoluwa, Ranpokunagama and Payagala,
- Billing and collection decentralization is being implemented in Towns East of Colombo - South and Colombo City in Western Central area and the Towns South of Colombo region (other areas completed).
- Survey of common outlets in tenement gardens and wayside stand posts has been done.
- 24 hrs call centre was established.

vii. Strengthening of legal section to follow up legal activities in NRW control and speed up court cases.

viii. Review present incentive schemes for meter readings.

Action taken to reduce UFW in Southern, Uva, Sabaragamuwa & Eastern Provinces.

Defective meter replacement program and leaks repairing programs are being carried out without any delay to reduce UFW figure in the region. Low depth pipes replacement programs and replacing of Asbestos-Cement pipes are also carried out depending on the availability of funds. Random checking of meter reading and reduction for zero billing are also done to reduce UFW.

A project proposal has been prepared to bring down NRW percentage by 3% within three year period from the year 2010 and also to measure the correct UFW of the schemes by installing new bulk meters and replacing the bulk meters which are malfunctioning at present.

Action taken to Minimize UFW in Central, North Central, North Western and Northern Provinces.

A project concept paper for UFW reduction programme in Northern/ Central Zone has been submitted to the Director General, NPD along with the Pre Feasibility Report for clearance on 26th September 2008.

This Project is to bring down UFW and the estimated cost is Rs. 450 million. Individual Project programmes were prepared in RSCs (Central, North Western and North-North Central) and initial activities have started.

Following activities were carried out in all RSC's to minimize UFW.

- Billing records and monthly collections were analyzed to investigate high and low bills
- Record actual consumption with reduced estimations and report total consumption every month.
- Reported leaks have been repaired and record the dated the repairs were effected
- Record and timely follow up on consumer complaints
- Training programme for Meter Readers
- Implementing a flow level signal systems
- Fixing of bulk meters for flow measurement
- Bundle pipe replacement
- Replacing defective water meters

Energy Management Programme

The Energy Management Programme of the NWSDB is aimed at substantial energy savings with resulting financial gains. It can be inferred that there is a conservative savings potential of around Rs. 150 million, according to the studies done by various agencies.

This programme was initiated in the year 2006 and had been managed by a Steering Committee. Since mid 2008, the planning and co-ordination function of the programme has been vested with the M&E Services Division.

Energy Audits have been carried out at the following schemes with the assistance from Sri Lanka Sustainable Energy Authority:

- Kalutara WSS
- Walk through energy audit at Dehiwala, Moratuwa and Sewage pumping stations at Mt. Lavinia and Dehiwala
- Badulla WSS
- Diyatalawa WSS
- Bandarawela WSS

Walk through energy audit at Kurunegala and Polgahawela WSS

Tenders floated for actions leading to energy saving

- Wakwella WSS - the total investment is Rs. 25.98 million
- Ratnapura WSS - The total investment is Rs. 5.36 million
- Balangoda WSS - The total investment is in progress

Procurement of Energy Serving Equipment such As Capacitor Banks was done.

A Business Plan (2006 - 2011) for this programme was prepared by the NWSDB, USAID and Alliance to Save Energy (USA), India Branch covering strategic, planning and operational areas. The NWSDB uses this document as the blue print with necessary adjustments where necessary.

Currently, the implementation programme is being persued by the regions through Energy Co-ordinators and regional staff. Implementation focuses on the identification of potential savings, industry level energy studies and implementation of the remedial measures for energy saving.

Energy saving actions are to be pursued in the areas of planning, design, construction, procurement, operation & maintenance and organizational policy making with a bias towards enhanced energy efficiency.

It was also observed that several premises where water treatment/ sewage/ pumping plant are located were categorized as commercial for electricity billing by the Ceylon Electricity Board (CEB) or Lanka Electricity Company Ltd. (LECO). They should have been categorized as industrial. Arrangements were being made to convert the tariff category to industrial, which is cheaper than commercial.

Report of the Audit and Management Committee

The Audit and Management Committee, appointed in terms of Public Finance Circular No. PF/PE/04 of 11.01.2000 to assist the Board of Management, was functioning during the year under review.

01. Mr. D. Widanagamachchi Board Member	- Chairman of the Committee
02. Dr. A. Uthumalebbe Vice Chairman	- Member
03. Dr. C. K. Shanmugarajah Board Member	- Member (upto 1st June 2008)
04 Dr. (Mrs.) Damitha De Soysa Board Member	- Member
05. Mr. K. L. L. Premanath General Manager	- Member
06. Mr. H. Ariyasena DGM (P&A)	- Member
07. Mr. D. Thotawatte DGM (Finance)	- Member
08. Mr. W. A. J. Weerasinghe Chief Internal Auditor	- Member
Mr. K. K. Chandrasiri Secretary to the Board	- Secretary
Mr. A. Chandrapala Audit Superintendent	- Observer

The Audit and Management Committee, comprising the above members, assembled at the office of the National Water Supply & Drainage Board on 30th January, 2008 and deliberated along the items set out the scope of the Committee. This report is submitted in compliance with the last item (items) described in the scope of the Committee, which would includes amongst other the following.

1. Determination of the responsibilities of the Internal Audit Unit and review of the Annual Audit Plan
2. Review and evaluate internal control systems for all activities of the entity
3. Review performance at regular intervals for cost effectiveness and to eliminate wasteful expenditure etc.
4. Liaise with external auditors and follow up action on Auditor General's External Auditor's management letters
5. Ascertain whether statistics, regulations, rules and circulars are complied with
6. Review financial statements to ensure compliance with accounting standards
7. Review implementation of recommendations/ directives of the Committee on Public Enterprises
8. Prepare report on the findings of the Committee for inclusion in the Annual Report

In terms of the guidelines set out in the document titled "Public Enterprises Guidelines for good guidance, Audit and Management Committee set up at the NWSDB functioned during the year within the scope stipulated in section 7:4:1 of the said document.

The Committee in general, devoted a major part of its time, on trying to put the system and procedures in place since lack of systems and procedures have led to the malpractice the took place in different regions in the NWSDB.

Internal audits have been carried out by Internal Audit Division of the Board during the year, in accordance with the Annual Internal Audit Programme, which was improved, giving more weight-age to core functions as advised by the Committee. As a result, system, deficiencies which hinder the performance of the Board have been directed and reported to the top management.

At the meetings held during the year under review, operational issues which were referred to the Committee, has been examined and recommendations of the Committee were submitted to the Board of Directors to remedy the situation. Audit and Management Committee's deliberations revealed that due to absence of well documented guidelines on Human Resource Management, Financial Management and Internal Audit, Operational issues arose and adversely affected the operational efficiency.

With recommendations of the Committee, actions were initiated to formulate guidelines on functional areas such as Internal Audit, Financial Management and Human Resources.

Deliberations were mainly focused on the following core issues, on which audit observations made in the report of the Auditor General on the Annual Financial Statements for the years 2006 - 2007.

- Accounting Deficiencies
- Non-Operative Accounts
- Suspense Accounts
- Foreign Loan Utilization and Delays in Project Implementations
- Non-Revenue Water and
- Assets and Stores Management Systems

The observations and recommendations of the Committee on the above areas, were referred to the Board of Directors for approval and implementation.

Financial Statements

Income Statement

For the year ended	Note	Revised Budget 2008 Rs.	Actual 2008 Rs.	Actual 2007 Rs.
Sale of Water	3	7,347,918,000	6,743,217,327	6,481,915,574
Less: Direct Operating Expenses	4	(6,201,994,805)	(6,088,841,694)	(4,902,547,316)
Operating Profit on Sale of Water		1,145,923,195	654,375,633	1,579,368,258
Other Operating Income	5	1,446,591,000	1,391,118,020	1,129,364,579
Administration Overheads	6	(1,930,531,195)	(1,895,309,365)	(1,762,775,528)
Depreciation	7	(1,111,007,000)	(1,397,510,699)	(1,381,373,711)
Other Operating Expenses	7	(247,575,000)	(468,138,615)	(139,810,303)
Profit/(Loss) from Operation Activities		(696,599,000)	(1,715,465,025)	(575,226,705)
Finance Cost	8	(1,094,000,000)	(1,192,769,345)	(851,942,058)
Non-Operating Income	9	160,000,000	59,918,167	203,386,141
Profit/(Loss) from Ordinary Activities before Tax		(1,630,599,000)	(2,848,316,204)	(1,223,782,622)
Taxation	10	85,487,000	66,609,224	54,590,568
Net Profit/(Loss) for the year		(1,716,084,000)	(2,914,925,428)	(1,278,373,190)

The accounting policies and notes on pages 77 to 89 form an integral part of the financial statement.

Colombo
27th February 2009

Balance Sheet

As at 31st December		2008	2007
		Rs.	Rs.
ASSETS			
Non-Current Assets	Note		
Property, Plant & Equipment, Net - At Cost	9A	55,197,086,364	52,406,177,577
Capital Work in Progress	11	60,344,145,322	48,291,137,798
Investments	13	90,861,180	115,400,688
		115,632,092,867	100,812,716,062
Current Assets			
Non-Operating Assets	12	190,886,620	191,486,865
Inventories	14	3,080,711,472	2,601,875,030
Trade & Other Receivables	15	5,250,591,422	6,021,249,894
Deposits and Advances	16	5,422,015,734	2,944,744,662
Investments	17	423,129,076	850,475,051
Cash & Cash Equivalents	18	822,671,654	484,127,206
		15,190,005,979	13,093,958,709
Total Assets		130,822,098,845	113,906,674,771
EQUITY AND LIABILITIES			
Capital and Reserves			
Asset taken over from Government Dept.		185,480,387	185,480,387
Equity Capital		54,560,196,683	48,851,176,568
Capital Grants	19	56,142,135,415	46,507,296,332
Capital Recovery Fund	20	1,818,551,821	1,487,418,856
Staff Welfare Fund		14,696,841	11,709,173
Revaluation Reserve		309,763,136	309,763,136
Accumulated Profit/(Loss)		(7,804,496,661)	(4,555,450,598)
		105,226,327,623	92,797,393,852
Non-Current Liabilities			
Loan Payable	21	18,113,326,220	16,525,615,820
Other Deferred Liabilities	22	2,167,292,016	1,731,195,728
		20,280,618,236	18,256,811,548
Current Liabilities			
Creditors	23	1,347,166,755	1,209,831,339
Loan Capital Payable	24	1,410,624,834	698,582,535
Loan Interest Payable		1,456,959,311	284,226,156
Non Operating Liabilities	12	115,455,778	115,455,778
Other Payable	25	984,946,308	544,373,563
		5,315,152,986	2,852,469,371
Total Equity and Liabilities		130,822,098,845	113,906,674,771

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

S. C Amarasinghe
Chairman

K. L. L. Premanath
General Manager

D. Thotawatte
DGM (Finance)

27th February 2009

Cash Flow Statement

As at 31st December	Note	2008 Rs.	2007 Rs.
Cash Flows from/(used) in Operating Activities			
Net Profit/(Loss) before Tax		(2,848,316,204)	(1,223,782,622)
Adjustments for			
Interest Income		(59,918,167)	(203,386,141)
Depreciation	7	1,397,510,699	1,381,373,713
Profit/Loss on Disposal Assets		-	(10,679,735)
Retiring gratuity provision		391,458,675	139,810,303
interest Expense	8	1,192,769,345	851,942,058
Operating Profit before Working Capital Changes		73,504,349	935,277,576
(Increase)/ Decrease in Inventories		(478,836,442)	(318,382,984)
(Increase)/ Decrease in Debtors, Receivable & Deposits		(1,705,425,607)	303,824,324
Increase/ (Decrease) in Creditors & Provisions		1,876,256,182	371,013,475
Cash Generated from Operations		(234,501,518)	1,291,732,391
Tax Paid	10	(51,609,224)	(54,590,568)
Disallowed VAT paid to Inland Revenue		(2,747,811,438)	-
Gratuity Paid	22.1	(80,977,252)	(70,476,438)
Net Cash from Operating Activities		(3,114,899,432)	1,166,665,384
Cash Flow from/ (used in) Investing Activities			
Investment in Fixed Assets		(17,838,136,993)	(11,547,840,460)
Sale proceeds for disposal assets		-	12,739,313
Investment Income		59,331,418	221,238,885
(Investment)/ Withdrawal of Investments		451,885,483	812,697,246
Net Cash Flows used in Investing Activities		(17,326,920,092)	(10,501,165,015)
Cash Flows from/ (used in) Financing Activities			
Equity Capital during the Period		8,994,095,489	6,489,922,106
Foreign Grant during the period		10,072,441,776	3,411,672,066
New Loans		2,651,188,553	1,589,498,022
Loan Repayments		(351,435,854)	(357,569,492)
Loan Interest Paid		(585,925,992)	(1,522,217,286)
		20,780,363,972	9,611,305,415
Net Increase in Cash & Cash Equivalents		338,544,448	276,805,784
Cash & Cash Equivalent at the beginning of the year		484,127,206	207,321,422
Cash & Cash Equivalent at the end of the period		822,671,654	484,127,206

The accounting policies and notes on pages 77 to 89 form an integral part of the financial statement.

Statement of Changes in Equity

As at 31st December	Asset from Department	Capital & Grants	Capital Recovery Fund	Revaluation Reserve	Staff Welfare Fund	Accumulated Profit/Loss	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Balance at 31.12.2006	185,480,387	85,456,878,729	1,261,237,556	309,763,136	11,731,941	(3,050,918,877)	84,174,172,871
Grant received during the year	-	9,901,594,171	-	-	-	-	9,901,594,171
	185,480,387	95,358,472,900	1,261,237,556	309,763,136	11,731,941	(3,050,918,877)	94,075,767,041
Net Profit/(Loss) for the year	-	-	-	-	-	(1,278,373,190)	(1,278,373,190)
Transfers to/(from) during the year	-	-	226,181,300	-	(22,768)	(226,158,532)	-
Balance at 31.12.2007	185,480,387	95,358,472,900	1,487,418,856	309,763,136	11,709,173	(4,555,450,599)	92,797,393,851
Grant received during the year	-	15,343,859,199	-	-	-	-	15,343,859,199
	185,480,387	110,702,332,099	1,487,418,856	309,763,136	11,709,173	(4,555,450,599)	108,141,253,049
Net Profit/(Loss) for the period	-	-	-	-	-	(2,914,925,428)	(2,914,925,428)
Transfers to/(from) during the year	-	-	331,132,966	-	2,987,669	(334,120,634)	-
Balance at 31.12.2008	185,480,387	110,702,332,099	1,818,551,822	309,763,136	14,696,841	(7,804,496,661)	105,226,327,622

The accounting policies and notes on pages 77 to 89 form an integral part of the financial statement.

Colombo
27th February 2009

Segmental Gross Profit - 31st December 2008

Sources / Activities	Water Service	Sewerage	Ground Water	Total
GROSS INCOME				
Sale of Water -				
Metered Sale	6,672,310,189	-	-	
Bulk Sales	83,856,566	-	-	
Bowser Supply	39,205,638	-	-	
	6,795,372,392	-	-	
Less: Rebates	(52,155,065)	-	-	
	6,743,217,327	-	-	
Other Income	342,490,381	89,771,828	27,129,131	
	7,085,707,707	89,771,828	27,129,131	7,202,608,667
Less: Direct Cost				
Personnel Cost -				
Permanent	2,432,495,404	105,966,392	60,446,845	
Casual	32,572,037	1,329,475	545,745	
	2,465,067,442	107,295,867	60,992,590	2,633,355,899
Pumping Cost	2,074,985,942	23,281,525	6,510,896	2,104,778,364
Chemical Cost	432,194,300	3,715,950	116,977	436,027,228
Repairs & Maintenance	433,362,348	9,171,012	12,245,118	454,778,478
Establishment Expenses	189,970,072	10,068,150	13,031,149	213,069,370
Rent, Rates, Taxes, etc.	228,909,830	16,968,411	954,114	246,832,355
	5,824,489,935	170,500,915	93,733,867	
Gross Profit for the year	1,261,217,773	(80,729,087)	(66,604,736)	1,113,766,973

Notes to the Financial Statement

1. 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 is an institution that is under the purview of Ministry of Water Supply & Drainage

1.2 Principal Activities and Nature of Operations

During the year, the principal activity of the Board was to be produced and sell treated drinking water to the community.

1.3 Number of Employees

The number of permanent and contract employees, as at the end of the year were 8919 (2007 – 8460). The number consists of those who were paid salaries as at 31st December 2008.

2. Summary of Significant Accounting Policies

2.1 General Accounting Policies

2.1.1 Statement of Compliance

The Financial Statements of NWSDB have been prepared in accordance with Sri Lanka Accounting Standards (SLAS), adopted by the Institute of Chartered Accountants of Sri Lanka.

2.1.2 Basis of Preparation

The financial statements are presented in Sri Lankan Rupees and prepared on the historical cost basis and the accounting policies are consistent with those used in the previous years.

The Board of Directors has made an assessment of the ability of NWSDB to continue as a going concern in the foreseeable future.

2.1.3 Event of the Balance Sheet Data (SLAS 12)

All material events occurring after the Balance Sheet date have been considered and where necessary adjustments made in these financial statements.

Two frauds were reported during the year 2006 at two regional offices of NWSDB. According to the investigations so far carried out frauds amounting to Rs. 56.49 million and Rs. 171.94 million were reported at Kelaniya and Trincomalee Regional Offices. Legal action has been instituted against above frauds and investigations are in progress.

2.2 Valuation of Assets and their Measurement Bases

2.2.1 Property, Plant & Equipment (SLAS 18)

i. Cost

Cost of Properties, Plant & Equipment is the cost of acquisition or construction together with any expenses incurred in bringing the assets to its work in condition for it's intended use. Where an item comprises major components having different useful lives, they are accounted for as separate items of property, plant & equipment. This accounting treatment covers the grant-funded project and other projects too.

ii. Leasehold Assets (SLAS 19)

Leasehold land is amortized over the period of lease and the amortized amount is charged to Income statement for the relevant period.

iii. Subsequent Expenditure Incurred on Assets

Expenditure incurred to replace the component of an item of properly, plant & equipment that is accounted for separately, incurring major inspection and overall expenditure. Other subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the item of property, plant & equipment. All other expenditures are recognized in the Income Statement as an expense as included.

iv. Restoration Costs

Expenditure incurred on repairs and maintenance of Property, Plant & Equipment in order to restore or maintain the future economic benefits expected from originally assessed standards of performance is recognized as an expense when incurred.

v. Depreciation (SLAS 8)

The provision of depreciation is calculated by using a straight line method on the cost of all Property, Plant & Equipment other than freehold land, in order to write off such amounts over the estimated useful lives by equal installments. The principal rates used are as follows:

Infrastructure	-	2.00 %
Buildings	-	2.00 %
Structures	-	1.67 %
Treatment Plant Equipment	-	5.00 %
Transmission Plant Equipment	-	1.67 %
Survey Equipment	-	10.00 %
Laboratory Equipment	-	10.00 %
Furniture, Fittings & Other Equipments	-	10.00 %
Passenger Vehicles	-	14.30 %
Heavy Vehicles	-	10.00 %
Service & Bulk Meters	-	10.00 %

No depreciation has been provided on freehold land. Full provision is made in the year of purchase and none in the year of disposal.

v. Rehabilitation Costs

Expenditure incurred on augmentation and rehabilitation of property, Plant & Equipment in order to enhance the future economic benefits expected from originally assessed standards of performance is recognized as capital expenditure.

v. Government Grants (SLAS 24)

These grants are used to build up assets. Amount of Depreciation of the assets is charged to relevant Grant accounts on systematic basis over the useful lives of the related assets.

Amount in VAT receivable A/c should be setoff against the VAT output. But Inland Revenue is not allowed to setoff the same. Therefore, it was setoff against the Government grants. In the year 2008 it is Rs. 2,747,811,438.

2.2.2 Inventories (SLAS 5)

Inventories mainly consist of materials that are held for use in the production of water and materials that are required to maintain water supply schemes. The inventories are shown at cost and cost is arrived by using weighted average method.

2.2.3 Trade and Other Receivables (SLAS 15)

Trade receivables are stated at the amounts they are estimated to realize net of provisions for bad and doubtful debts. Other receivables and dues from Related Parties are recognized at cost less provision for bad and doubtful receivables. The allowance for bad and doubtful debts is based on specific debtors who are considered as non-recoverable.

2.2.4 Cash and Cash Equivalents (SLAS 9)

Cash and Cash equivalents are defined as cash in hand, cash in transit and current account balances in banks.

2.3 Investments (SLAS 22)

Investments are stated at cost of acquisition. Income is recognized on accrual basis for interest/yield deriving investments and to the extent of distribution from dividend bearing investments.

(a) Long Term Investment

Long Term Investments are the investments made in relation to more than one year period. Then investments have been disclosed as notes to the accounts number 13.

(b) Short Term Investment

Short Term Investments are the investments made a short-term period for the purpose of organizational activities.

2.4 Liabilities and Provisions

Liability

Liabilities are classified as current liabilities on the balance sheet date are those which fall and due for within one year from the Balance Sheet Date. Non-current liabilities are those balances that fall due for payments later than one year from balance sheet date.

All known liabilities have been accounted for in preparation of financial statements.

2.4.1 Retirement Benefit Obligations (SLAS 16)

a) Defined Benefit Plan – Gratuity

Provision has been made for retiring gratuities from the first year of service for all employees, in conformity with Sri Lanka Accounting Standard No. 16 (SLAS 16).

Retirement Benefit Cost

However, under the payment of gratuities Act No. 12 of 1983, the liability to an employee arises only on completion of 5 years of continued service. Gratuity is defined in benefit plan. The advice of an actuary has not been obtained in accounting for defined benefit plan. The resulting difference between brought forward provision at the beginning of the year and the carried forward provision at the end of a year is dealt within the income statement.

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. Total Contribution of the Board for the period, EPF – Rs. 374,257,973.34 and ETF – Rs. 93,564,499.24.

Provision

Provision is recognized in the Balance Sheet when the Board has the legal or constructive obligation as a result of past event and it is probable that an out flow of economic benefits will be required to settle the obligations.

(a) Provision for Bad Debts

Following percentages are applied for provision of bad debts.

5%	-	Arrears over 2 - 12 months
15%	-	Stand post Arrears
	-	Disconnected Arrears
	-	Arrears over 1 year
	-	Sewerage Arrears
20%	-	CMC Debtors
25%	-	Debtors Account 219

Other than the above percentages 10% applied as general provision for water debtors.

(b) Contingent Liabilities & Commitments

In the opinion of the Board of Directors and legal officers pending litigation against board will not have a material impact on the reported financial results of the further operation of the Board.

All commitments have been specially disclosed in the note No. 26 to the financial statements.

(c) Irrecoverable Staff Loans

A Provision has been increased to write off irrecoverable staff loans to employees who expire whilst in service by Rs. 1,329,201.47.

2.5 Trade and Other Payables (SLAS 15)

Trade and other payables are stated at the cost.

2.6 Income Statement

2.6.1 Revenue Recognition (SLAS 29)

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Board and the revenue and associated costs incurred or to be incurred can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable net of rebates. The following specifics are used for the purpose of recognition of income.

a) Sale of Water (Normal Water Sales)

Revenue from sale of water is recognized when the meters are read and when bills are processed within the system.

b) Other operating Income

Other operating income including new connection income is recognized on cash basis.

The revenue and expenses of the construction contracts are recognized by reference to the stage of completion of the contract activities at the balance sheet date. (SLAS 13)

b) Interest Income

Interest income is recognized as the interest/yield accrues unless the collectibles is in doubt.

c) Dividends

Dividend income is recognized on cash basis.

2.6.2 Expenditure Recognition

a) Expenses are recognized in the income statement on the basis of a direct association between the cost incurred and the earning of specific items of Income. All expenditure incurred in the running of the business and in maintaining the property, plant & equipment in a state of efficiency has been charged to income in arriving at the profit of the year.

   Repairs and renewals are charged to Income Statement in the year in which the expenditure is incurred.

(b) Borrowing Costs (SLAS 20)

Borrowing costs are recognized as an expense in the period in which they are incurred. The borrowing costs on the fund specifically obtain for ongoing capital projects have been capitalized and included in the carrying amount of the projects.

(c) Finance cost

The finance cost comprises interest payable on borrowings other than borrowing cost capitalized ongoing projects.

(d) Taxation

Economic Service Charge and Income Tax paid during the year as per Inland Revenue Act No. 38 of 2000 have been charged under taxation.

		31.12.2008	31.12.2007
		Rs.	Rs.
3.	Sale of Water		
	Metered Sales	6,672,310,189	6,417,437,493
	Bulk Sales	83,856,566	39,520,159
	Bowser Supply	39,205,638	74,958,291
	Less: Rebates	(52,155,065)	(50,000,368)
		6,743,217,327	6,481,915,574
4.	Direct Operating Expenses		
	Personnel Cost	2,633,355,899	2,335,091,573
	Pumping Cost	2,104,778,364	1,587,873,327
	Chemicals	436,027,228	349,492,607
	Repairs & Maintenance	454,778,478	287,034,821
	Establishment Expenses	213,069,370	152,013,097
	Rent, Rates, Taxes, Security & Other Expenses	246,832,355	191,041,890
		6,088,841,694	4,902,547,316
5.	Other Operating Income		
	Capital Recovery Charges	331,132,966	226,181,300
	New Connection Income (Net)	339,952,632	237,836,696
	Fees & Other Charges	695,505,165	646,012,718
	Bad Debt Over Provision	-	21,653,200
	Revenue Grants	24,527,257	(2,319,334)
		1,391,118,020	1,129,364,579
6.	Administration Overheads		
	Personnel Cost	1,327,153,705	1,135,611,518
	Repairs & Maintenance	68,506,344	69,864,240
	Establishment Expenses	269,487,064	224,065,860
	Rent, Rates, Taxes, Security & Other Expenses	230,162,252	333,233,910
		1,895,309,365	1,762,775,528
7.	Other Operating Expenses		
	Depreciation		
	Infrastructures	9,631,373	8,324,931
	Buildings	123,359,719	119,652,153
	Water Supply Scheme Structures	227,044,297	214,837,137
	Plant & Machinery - Pumping & Treatment	599,114,962	590,085,268
	Service/ Bulk Meters	9,169,568	7,505,742
	Plant & Equipments - Distribution & Transmission	502,112,678	455,852,209
	Mobile Equipments	7,793,733	7,174,870
	Survey Equipments	608,270	608,270
	Laboratory & Other Equipments	125,624,778	118,239,488
	Furniture Fittings & Office Equipments	44,847,333	39,546,598
	Passenger Cars	6,058,128	6,063,599
	Van, Buses & Jeeps	9,207,835	9,337,336
	Lorries & Trucks	49,733,537	36,992,745

	31.12.2008	31.12.2007
	Rs.	Rs.
Tractors & Trailors	1,798,693	1,066,802
Water Bowsers & Heavy Vehicles	122,451,287	97,520,057
Motor Cycles	1,018,340	945,430
	1,839,574,530	1,713,752,635
Adjustments for prior year depreciation	(4,512,326)	-
Amortization of Leasehold Land	51,188	51,188
Total Depreciation	1,835,113,392	1,713,803,823
Less: Department for Grant Funded Assets	(437,602,693)	(332,430,112)
	1,397,510,699	1,381,373,711
Bad & Doubtful Debts	28,936,599	-
Provision for Irrecoverable Staff Loans	1,329,201	-
Provision for Obsolete Stock	46,414,139	-
Retiring Gratuity	391,458,675	139,810,303
	1,865,649,314	2,902,557,703

8. Finance Cost

Loan Description		
IDA 1700	56,386,914	60,756,605
IDA 1041	23,403,858	24,421,417
French - Trinco	2,315,243	2,932,019
French - Negombo I	945,649	1,197,585
French - Negombo II	1,154,372	1,377,469
French - Kurunegala	1,669,986	1,824,954
French - Badulla	1,993,258	2,197,378
French - Ambatale	29,071,872	54,986,528
ADB 817	73,381,256	78,816,161
ODA	709,682	1,082,897
ADB 1235	94,227,916	98,840,471
ADB 1575	146,833,832	150,627,615
USAID	612,157	681,956
ODA Matara - Nilambe	40,864,381	43,836,337
OECF SLP 19	32,998,074	35,681,363
OECF SLP 37	105,892,327	112,408,778
OECF SLP 49	255,032,202	259,298,195
OECF SLP 55	454,200,284	401,667,221
OECF SLP 71	82,188,335	72,842,817
OECF SLP 66	8,770,694	9,435,080
Kalmunai	1,457,864	1,583,501
KfW Nawalapitiya/ Ampara/ Koggala	39,778,464	25,932,416
EDCF - Greater Galle Korean I	53,486,786	54,163,834
EDCF - Greater Galle Korean II	31,924,066	20,388,139
ADB 1757	5,072,237	5,179,749
ADB 1993	75,112,478	26,159,085
Nuwara Eliya - DANIDA	24,911,008	13,262,358
Kandy South - DANIDA	58,616,910	33,365,095
Greater Trincomalee	2,951,398	2,657,517

	31.12.2008	31.12.2007
	Rs.	Rs.
Ambalangoda/ Weligama/ Kataragama	14,206,204	12,756,692
Ambatale Remote Loan	11,466,262	-
Ambatale Refurbishment	10,306,992	-
Towns North of Colombo	731,514	-
Greater Colombo Rehabilitation	1,312,493	-
Kirindi Oya	2,079,886	-
Greater Kandy Stage II SLP - 90	756,949	-
Kelani Right Bank	11,835,346	-
Local Loans	1,169,484	1,239,781
	1,759,828,631	1,611,601,013
Less: Capitalized Interest on Construction Projects		
ADB 1575	-	(150,627,615)
OECF SLP 55	(220,654,236)	(401,667,221)
OECF SLP 71	(82,188,335)	(72,842,817)
KfW - Nawalapitiya, Ampara & Koggala	(39,778,464)	(25,932,416)
EDFC Greater Galle Korean II	(31,924,066)	(20,388,139)
ADB 1993	(75,112,478)	(26,159,085)
Nuwara Eliya - DANIDA	(24,911,008)	(13,262,358)
Kandy South - DANIDA	(58,616,910)	(33,365,095)
Greater Trincomalee	(2,951,398)	(2,657,517)
Ambalangoda/ Weligama/ Kataragama	(14,206,204)	(12,756,692)
Towns North of Colombo	(731,514)	-
Greater Colombo Rehabilitation	(1,312,493)	-
Kirindi Oya	(2,079,886)	-
Greater Kandy Stage II SLP - 90	(756,949)	-
Kelani Right Bank	(11,835,346)	-
	1,192,769,345	851,942,058

9. Other Non-Operating Income

Investment Income	59,918,167	203,386,141

9 A Schedule of Fixed Assets as at 31.12.2008

Code	Description	Rate of Dept.	Cost of Fixed Assets as at 01.01.2008 (A)	Addition During the Year (B)	Transfers/ Adjust-ments (C)	Disposals (D)	Cost of Fixed Assets as at 31.12.2008 (E) (A+B-C-D)	Fully Depreciated Items (F)	Depreciable Assets (G) (E-F)	Depreciation 01.01.2008 (H)	Depreciation for Disposals Adj. for Depreciation (I)	Depreciation for Year 2008 (J) (G x Rate)	Depreciation as at 31.12.2008 (K) (H-I+J)	Amortization for Year 2008 (L)	Fixed Assets Written Down Value 31.12.2008 (E-K-L)
101	Land - Freehold		1,181,797,417	74,239,306	2,619,519	-	1,253,417,204	-	1,253,417,204	-	-	-	-	-	1,253,417,204
102	Land - Leasehold		5,846,944	-	-	-	5,846,944	-	5,846,944	-	-	-	-	51,188	5,795,756
105	Infrastructure	2%	418,446,564	65,322,088	-	-	483,768,652	2,200,000	481,568,652	13,717,333	-	9,631,373	23,348,706	-	460,419,946
106	Building - Freehold	2%	5,982,607,669	185,378,288	-	-	6,167,985,957	-	6,167,985,957	1,072,683,706	-	123,359,719	1,196,043,426	-	4,971,942,531
108	Structures	1.7%	12,864,499,196	599,680,675	(131,287,015)	-	13,595,466,885	-	13,595,466,885	1,284,075,967	(2,192,494)	227,044,297	1,513,312,758	-	12,082,154,127
111	Plant & Eq. Pumping Treatment	5%	12,384,889,733	313,715,300	133,121,428	-	12,565,483,605	583,184,369	11,982,299,236	3,672,015,124	6,656,070	599,114,962	4,264,474,016	-	8,301,009,589
113	Service Meter	10%	30,547,385	475,329	-	-	31,022,714	26,317,724	4,704,990	30,547,385	-	470,499	31,017,884	-	4,830
114	Bulk Water Meter	10%	72,950,518	14,040,174	-	-	86,990,693	-	86,990,693	16,207,574	-	8,699,069	24,906,643	-	62,084,050
115	Plant & Eq. Trans. & Distribution	1.7%	27,296,839,458	2,770,087,978	-	-	30,066,627,436	-	30,066,627,436	3,418,479,552	-	502,112,678	3,920,592,230	-	26,146,035,206
116	Mobile Equipment	10%	132,641,731	6,515,577	-	-	139,157,308	61,219,982	77,937,326	112,836,318	-	7,793,733	120,630,051	-	18,527,257
117	Survey Equipment	10%	8,289,895	-	-	-	8,289,895	2,207,196	6,082,699	5,046,093	-	608,270	5,654,363	-	2,635,532
118	Laboratory	10%	101,172,140	13,298,668	-	-	114,470,807	18,395,523	96,075,284	50,220,426	-	9,607,528	59,827,955	-	54,642,853
119	Other Equipment	10%	1,336,823,182	94,094,768	-	-	1,430,917,950	270,745,454	1,160,172,496	785,216,676	-	116,017,250	901,233,926	-	529,684,024
131/132	Furniture & Fittings	10%	475,626,116	67,721,147	737,474	20,900	542,588,888	94,115,554	448,473,334	255,031,751	55,017	44,847,333	299,824,068	-	242,764,821
141	Motor Vehicles, Cars	14.3%	64,457,677	2,753,739	-	1,155,000	66,056,416	23,691,886	42,364,530	45,989,948	1,155,000	6,058,128	50,893,076	-	15,163,340
142	Van, Busses & Jeeps	14.3%	149,217,852	2,974,400	-	-	152,192,253	87,801,797	64,390,456	116,359,975	-	9,207,835	125,567,810	-	26,624,443
143/144	Lorries & Trucks	10%	568,037,730	148,098,867	(38,150)	-	716,174,747	218,839,377	497,335,370	362,979,056	(38,150)	49,733,537	412,750,745	-	303,424,004
145	Tractors & Trailers	10%	23,670,622	7,487,800	(10,000)	-	31,168,422	13,181,495	17,986,927	15,627,452	(10,000)	1,798,693	17,436,144	-	13,732,277
146/148	Water Bowsers, Heavy Vehicles	10%	1,077,475,869	264,123,608	-	-	1,341,599,477	117,086,603	1,224,512,874	516,438,434	-	122,451,287	638,889,721	-	702,709,756
147	Motor Cycles	14.3%	9,045,572	1,220,504	-	-	10,266,076	3,144,815	7,121,261	4,932,916	-	1,018,340	5,951,258	-	4,314,817
	Total		64,184,583,268	4,631,228,215	5,143,257	1,175,900	68,809,492,326	1,522,131,775	67,287,360,551	11,778,405,688	5,625,443	1,839,574,532	13,612,354,777	51,188	55,197,086,362

		31.12.2008	31.12.2007
		Rs.	Rs.
10. Taxation			
Economic Service Charge		60,000,000	54,330,131
Income Tax		6,609,224	260,437
		66,609,224	54,590,568
11. Capital Work in Progress			
Construction Work		45,553,766,555	38,833,719,555
Rehabilitation		14,790,378,767	9,457,418,243
		60,344,145,322	48,291,137,798
12. Non-Operating Assets		190,886,620	191,486,865
Non-Operating Liabilities		115,455,778	115,455,778
		75,430,842	76,031,087

Note: Non-Operating balances consists of aggregate of balances which are outstanding for a long period of time. The assignment to reconcile these balances have been awarded to an Accountancy firm in January 2004, and report has been submitted. This report is reviewed by an Audit and Management Committee and direct to do a reconciliation by the employee's with an incentive scheme.

13. Investments			
HDFC Shares		208,742	208,742
HDFC Investment for Staff Housing Loans		88,292,402	113,009,032
Bank of Ceylon Saving - I		1,541,051	1,426,427
Bank of Ceylon Saving - II		818,986	756,487
		90,861,180	115,400,688
14. Inventories			
Stock at Main Stores		297,923,345	323,340,699
Stock at Site Stores		2,828,053,033	2,273,763,807
Goods in Transit		1,149,233	4,770,524
		3,127,125,611	2,601,875,030
Expenses of Absolute Stock		(46,414,139)	-
Total Inventories at Cost		3,080,711,472	2,601,875,030
15. Trade & Other Receivables			
Advance to Staff - Traveling		488,207	512,654
Advance to Staff - Salaries		(69,672)	299,220
HDFC Receivable		32,770	22,770
Festival Advances		11,064,131	10,165,129
Advance to Staff - Flood Relief		-	4,375
Loans to Employee's - Distress	1,056,904,523		
Less: Irrecoverable Employee's Debts Provision	-	1,056,904,523	675,871,683
Loans to Employee's - Vehicle		20,037,861	22,560,823
Loans to Employee's - Special Advance		124,004	130,734
Loans to Employee's - Tsunami		3,559,525	5,449,925
Casual Salary - Advances		149,500	391,825

		31.12.2008	31.12.2007
		Rs.	Rs.
Special Incentive Advances		25,898,124	28,185,204
VAT Receivable		325,070,906	163,257,008
VAT Receivable from Inland Revenue		1,735,615,725	3,214,606,143
Trade Debtors - Water	1,981,230,418		
CMC Debtors	28,519,949		
Sewerage Debtors	89,055,595		
Other Debtors	62,743,153		
	2,161,549,115		
Less: Provision for Bad Debts	(350,678,709)	1,810,870,406	1,712,916,298
Debtors Collection Control		255,405,477	196,871,220
Suspense Debtors		71,292	71,292
Receivable on Interest & Others		8,251,121	7,664,372
Installment Debtors - New Connection		25,020,229	10,686,298
Installment Debtors - N/C (Low Income)		(28,478,794)	(30,120,513)
Stock Adjustments		576,087	1,703,434
Inter-Regional Current Accounts		-	-
		5,250,591,422	6,021,249,894
16. Deposits and Advances			
Rechargeable Project Work		462,459,571	460,109,956
Advance to Suppliers		15,173,537	14,034,552
Advance to Contractors		68,382,106	69,799,318
Cash Advances Head Office		1,402,312	4,609,069
Cash Advances Regions		2,831,574	3,278,104
Other Advances		6,450,000	6,450,000
Advance to Contractors (Local Contract)		2,251,206,433	775,983,181
Advance to Contractor (Special Projects)		2,518,141,681	1,519,330,608
Pre Payments		235,171	56,568
Special Dollar Account		-	1,198,086
Other Short Term Deposits		84,012,970	77,880,267
Employees Security Deposits		3,269,517	3,548,090
Electricity Deposits		8,384,597	8,400,097
Telephone Deposits		66,267	66,767
		5,422,015,734	2,944,744,662
17. Investment			
Treasury Bills		275,000,000	13,278,020
Fixed Deposits		39,355,625	609,999,999
Savings Account with People's Bank - Ratmalana		36,747,178	46,858
Savings Account with Bank of Ceylon - Ratmalana		49,237	46,717
Savings Account with Bank of Ceylon - Dehiwala		2,235,078	2,527,626
Savings Account with Bank of Ceylon - Dehiwala		69,741,958	224,575,831
		423,129,076	850,475,051

		31.12.2008 Rs.	31.12.2007 Rs.
18.	Cash & Cash Equivalents		
	Main Current Accounts	488,480,154	120,009,408
	New Connection Accounts	46,893,376	18,919,448
	Main Collection Account	137,015,689	168,220,020
	Internal Cash Transfer Account	20,086,438	14,209,602
	Cash Imprest Head Office	1,793,641	930,395
	Sub Collection Accounts	23,007,538	7,049,570
	Cash Imprests Regions	7,250,986	86,126,960
	Cash in Transit	116,182,755	71,860,839
	Cash Balance at the End	840,710,577	487,326,240
	Adjust:		
	New Connection Control Account	(3,444,318)	(8,662,290)
	Water Bill Collection Control Account	(14,594,605)	(5,463,257)
	Cash & Cash Equivalents	822,671,654	484,127,206
19.	Capital Grants		
	Foreign Grants	55,803,638,715	46,168,794,373
	Local Grants	338,496,700	338,501,958
		56,142,135,415	46,507,296,332
20.	Capital Recovery Fund		
	Balance at beginning of the year	1,487,418,856	1,261,237,556
	Amount appropriated during the year	331,132,966	226,181,300
		1,818,551,821	1,487,418,856
21.	Loan Payable		
	Foreign Loans through Treasury	17,493,155,898	15,904,683,652
	Local Loans	125,434,747	126,196,593
	Interest Payable	494,735,575	494,735,575
		18,113,326,220	16,525,615,820
22.	Other Deferred Liabilities		
	Retiring Gratuity Provision	1,442,337,046	1,131,855,622
	Customer and Employee Security Deposits	724,954,970	599,340,105
		2,167,292,016	1,731,195,727
	22.1 Movement of Retiring Gratuity Provision		
	Balance at the beginning of the period	1,131,855,622	1,062,521,758
	Add provision for the period	391,458,675	139,810,303
		1,523,314,298	1,202,332,061
	Less: Gratuity Payments during the period	(80,977,252)	(70,476,438)
		1,442,337,046	1,131,855,622
23.	Creditors		
	Rechargeable Work Customer Advances	916,577,991	741,066,379
	440,444 - Contractors Retention	430,588,764	468,764,960
		1,347,166,755	1,209,831,340

	31.12.2008	31.12.2007
	Rs.	Rs.
24. Loan Capital Payable in 2009		
IDA 1041	118,453,443	95,841,020
French - Trinco	15,417,348	10,278,232
French - Negombo I	3,778,101	2,518,733
French - Negombo II	3,367,527	2,245,018
French - Kurunegala	2,322,795	1,548,530
French - Badulla	3,060,360	2,040,240
French - Ambatale	37,109,988	40,282,538
ADB 817	109,008,591	84,613,155
IDA 1700	78,439,428	60,232,380
OECF - SLP 19	41,527,102	28,110,654
Kalmunai (Australia)	1,891,734	1,261,156
USAID	5,231,229	3,487,486
ADB (1235)	71,384,783	49,420,235
SLP 37	190,063,155	162,911,275
UDA - ADB	66,220,273	-
OECF - SLP 49	165,605,325	110,403,550
OECF - SLP 66	16,736,640	11,157,760
Greater Galle	40,622,877	-
ODA Hill Country	6,163,782	7,464,278
ADB 1757	3,498,094	-
OECF SLP 55	350,017,505	-
Matara/ Nilambe (ODA)	37,149,439	24,766,294
Ambatale Remote Loan	12,452,454	-
Ambatale Refurbishment Loan	10,861,365	-
Colombo North WSP	3,336,513	-
French - Anuradhapura	16,904,982	-
	1,410,624,834	698,582,535
25. Other Payables		
Creditors Control	117,707,587	103,329,709
VAT Payable	140,304,632	109,339,577
Security Deposit	503,931	371,028
Other Creditors	25,069,310	34,053,600
Refundable Tender Deposit	18,484,871	16,211,558
Salary Payables	495,627,080	116,366,129
With Holding Tax	2,176,702	4,760,009
With Holding VAT	7,050,238	32,226,300
Accrued Expenses	175,216,154	124,909,848
Provision for Cash Losses	1,075,000	1,075,000
Other Payables	1,730,805	1,730,805
	984,946,308	544,373,563

26. Capital Commitments

The committed Capital Expenditure for 2009 is Rs. 28,300 million for which the Government of Sri Lanka has allocated funds in the National Estimate.

27. Outstanding Litigation

In the opinion of the Directors and the Legal Officers pending litigation against the Board will not have a material impact on the reported financial results of the future operations of the board.

28. Post Balance Sheet Events

No events have occurred since the Balance Sheet date necessitating adjustments or disclosure in the accounts.

29. Directors Interests in Contracts

No Director of the Board has a direct or indirect interest in the contracts of the Board.

30. Comparative Information

Prior years figures have been restated where necessary to confirm to the current year's presentation.

31. Directors Responsibility

The Directors take responsibility for the preparation and presentation of Financial Statements.

Auditor General's Report for the year ended 31st December 2008

TH/D/NWS&DB/2008
September 2009

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 2008, 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 2008, 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 was issued to the Chairman of the Board on 08 April 2009.

1.2 Responsibility of the Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatements, whether due to fraud or error selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

1.3 Scope of Audit and Basis of Opinion

My responsibility is to express an opinion on these financial statements based on my audit. Audit opinion, comments and findings in this report are based on review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and extent of such review and tests were such as to enable as wide and audit coverage as possible within the limitations of staff, other resources and time available to me. The audit was carried out in accordance with Sri Lanka Auditing Standards to obtain reasonable assurance as to whether the financial statements are free from material misstatements. The audit include the examination on a test basis of evidence supporting the amounts and disclosures in financial statements and assessment of accounting principles used and significant estimates made by the management in the preparation of financial statements as well as evaluating their overall presentation. I have obtained sufficient information and explanations which to the best of my knowledge and belief were necessary for the purpose of the audit. I therefore believe that my audit provides a reasonable basis for my opinion. 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.

2. Financial Statements

2.1 Opinion

In view of my comments and observations appearing in this report, I am unable to express an opinion on the financial statements of the NWSDB for the year ended 31 December 2008 presented for audit.

2.2 Comments on Financial Statements

2.2.1 Sri Lanka Accounting Standards

Non-compliances with the following accounting standards were observed in audit.

(I) S.L.A.S - 3

(a) Audit test check revealed that expenses amounting to Rs. 524,536,906 incurred on water supply Projects which had later been abandoned and discontinued had continuously been shown under capital work in progress.

(b) Accounting policies in relation to the Revenue recognition of the water supply income had not been disclosed in the financial statements.

(ii) S.L.A.S - 5

Even though it was disclosed under the Accounting Policies 2.2.2 of the financial statements that the inventories are shown at cost and cost is arrived by using weighted average method, it was observed that the weighted average method had not been used for maintaining the stock ledgers in certain instances.

(iii) S.L.A.S -9

In determining the cash flow from Investment activities, a sum of Rs. 17,838,136,993 had been shown as investment on fixed assets of which is not matched with the amount shown in the schedule as addition to fixed assets after making relevant adjustments. Therefore the accuracy of the amounts shown in the cash flow is open to question.

(iv) S.L.A.S - 18

(a) Provision for depreciation had been made in the year of purchase fully and no provision had been made in the year of disposal instead of making provision at the date of purchase up to the date of disposal of the assets, in terms of the SLAS 18.

(b) Items of Property, Plant and Equipments which were permanently not in use had not been eliminated from the balance sheet. Meanwhile the value of fully depreciated assets, which are still in use had been continued to be shown in the Balance Sheet along with the corresponding accumulated depreciation provision without getting them revalued. Disclosure requirements with regard to revalued property, Plant and Equipment had also not been complied with.

(v) S.L.A.S - 18 and 24

Even though the cost of an item of Property, Plant and Equipment should comprise its purchase price, Import duties and Non- refundable taxes, it was observed that Value Added Tax amounting to Rs. 2,747,811,438 paid on construction payment for water supply schemes constructed under foreign funded projects had been written off against the Government Grants instead of capitalizing under respective Property, Plant and Equipment and deducting the grant in arriving at the caring amount of the assets purchased out of the Grant.

(vi) S.L.A.S - 36

Exchange rate on price variations and interest amounting to Rs. 380 million and Rs. 150 million respectively, claimed by a foreign contractor with regard to the construction of Eastern Coastal Towns of Ampara District Water Supply Project (Phase II) had not been disclosed in the financial statements.

2.2.2 Accounting Deficiencies.

Following observations are made.

(a) Audit test checks revealed that the Capital Work-in Progress valued at Rs. 60,344,145,322 appearing in the financial statements which represent 46% of the total assets could not be scrutinized due to following shortcomings.

(i) The balances appearing in the work in progress account had not been properly treated as and when the Project completion taken place to enable to report the correct position in the Balance Sheet date. It was revealed that the completed water supply projects valued at Rs. 13,589,001,305 which were being in operation had not been capitalized under property plant and equipment due to non submission of completion reports, taking over certificates and fixed assets forms. As a result, no depreciation had been provided on these assets in the accounts.

(ii) Re chargeable capital works valued at Rs. 54,424,789 which were completed and handed over to the respective parties had been shown as work in progress, without making necessary adjustments in the accounts.

(b) Following deficiencies were observed in respect of the value of stocks amounting to Rs 3,125,976,378 shown in the financial statements.

(i) Stocks valued at Rs. 387,644,021 in respect of 128 stores had not been physically verified as at the balance sheet date. Even though physical verification had been carried out in respect of 48 stores, the ledger balance had been accounted instead of verified balance and as a result the stock balance had been overstated by Rs. 63,740,651.

(ii) Action had not been taken by the Board to fixed the responsibility of officers concerned in respect of stock shortages amounting to Rs. 36,470,049 in the main stores.

(iii) A net amount of of Rs. 5,163,900 had been shown in the accounts for the year under review as stock adjustment under non-operating balances. This had been arrived at after setting off debit and credit balances amounting to Rs. 75,307,190 and Rs. 70,143,291 respectively. It was observed that action had not been taken to identify these amounts even after lapse of over five years.

(iv) Even though a computerized inventory management system had been implemented at the Main Stores, the intended objectives could not be achieved due to the failure of collecting adequate information through the system, A difference of Rs. 4,328,671 had been observed between the ledger balance and the amounts of the computerized inventory system in respect of several PVC items in the Main stores.

(v) Master stock ledger had not been maintained and as a result existing stock items in different stores had been purchased again for other projects in other regions without verifying the availability of stocks. It was further observed that stocks valued at Rs. 541,164,754 had remained unserviceable, slow moving and non moving as at end of the year under review, which represented 17% of total stock value.

(c) A sum of Rs 4,483,427,163 claimed by the Board as refundable Value Added Tax (VAT) from the Department of Inland Revenue(D.I.R) had been under dispute. Therefore the recoverability of the total amount from the Department of Inland Revenue was doubtful. Following observations are made in this regard.

(i) The Commissioner General of Inland Revenue had informed to the Board that the VAT amount of Rs. 2,776,345,107 for the period of 2003 to 2006 claimed by the NWS&DB could not be refunded due to non submission of input tax credits claimed by the Board in accordance with the requirements of Section 20 of the Value Added Tax Act No. 14 of 2002 and certain input tax claimed were relevant to capital grants received from General Treasury. Although the NWSDB had shown a sum of Rs. 2,277,052,201 in the accounts as VAT receivable, as per the Department of Inland Revenue a sum of Rs. 603,417,550 was due from NWSDB for the same period. This liability had not been settled up to 31 December 2008. It was further observed that a sum of Rs. 2,747,811,438 had later been written off against the Government Grants without any investigation by the Board, which resulted an understatement of Government Grants and Fixed assets by the same amount .

(ii) Audit test check revealed that the VAT liability amended by the DIR amounting to Rs. 603,417,550 had not been taken into account. However the correct amount due to the Department of Inland Revenue was Rs. 606,731,220 as calculated by the audit.

(iii) Audit test check revealed that input tax and output tax had been overstated by Rs. 1,273,131 and Rs. 2,509,258 respectively in relation to 4 regional offices.

(iv) A sum of Rs. 28,533,669 accounted for as VAT receivable in respect of local purchases which had been disallowed by the Commissioner General of Inland Revenue had not been adjusted in the accounts.

(v) Although the Commissioner General of Inland Revenue had turn down the claim made by the Board in respect of the VAT amount paid on assets purchased from the Grants, such VAT amounts for the years 2007 and 2008 had continuously been shown as receivable without being capitalized.

2.2.3 Unreconciled control Accounts

The following balances in the control accounts had not been reconciled with the corresponding subsidiary records, schedules etc. as at 31 December 2008.

Description of Control Accounts	Amount as per Control Account Rs.	Amount as per subsidiary Records Rs.	Difference Rs.
Trade Debtors	1,981,230,418	2,128,568,000	147,337,582
Traveling Advance	260,479	237,791	22,688
Festival Advance	11,064,130	10,956,982	107,148
Distress Loan	1,056,904,523	1,057,244,088	339,565
Supplier Advance	2,780,342	2,696,518	83,824
Vat Receivable	706,553	539,933	166,620
Cash Internal Transfer	422,157	9,307	412,850
New Connection	(1,406,176)	-	(1,406,176)
Short-term Deposits	632,500	-	632,500
Cash Imprest	(3,766)	-	(3,766)
Contractors Retention	1,920,358	1,915,429	4,929
B. T. T. Payable	648,775	517,583	131,192
Other Debtors	2,413,905	2,017,739	396,167
Other Debtors	373,975	101,240	272,735

2.2.4 Non Operating and Suspense Balances.

Non operating debit balances aggregating Rs. 190,886,620 and credit balances aggregating Rs 115,455,778 had been shown in the accounts under current assets and liabilities for a long period without being cleared. Service of a firm of Chartered Accountants had been obtained at a cost of Rs. 1,035,000 to reconcile these balances. Their report had been obtained in 2005. However action had not been taken by the Board to effect the necessary adjustment in the accounts based on the report. According to the Deputy General Manager (Finance) adjustments had not been made due to reasonable doubt that certain un- reconciled balances might be connected with fraud discovered by the Board. Considering these facts Audit and Management Committee had recommended to carry out a special investigation with regard to this matter by the staff of the Board. Therefore the payment of Rs. 1,035,000 made to the firm could be considered as fruitless expenditure.

2.2.5 Accounts Receivable and Payable.

Following observations are made.

(a) 78% of the Sewerage, CMC and other debtors aggregating Rs. 133,957,850 had been outstanding for more than 3 years as at the balance sheet date.

(b) Debtor balances aggregating Rs. 3,759,636 in respect of two regional offices had been written off without proper authority.

(c) Advances paid to the contractors and suppliers aggregating Rs. 121,064,588 had not been recovered even after lapse of over three years.

(d) Water debtors in respect of stand post and disconnected water connections had increased rapidly by 68% during the last two years. It was observed that the progress on recovery of debts was very poor.

(e) A proper system had not been introduced by the Board to reconcile the debtors' collection control account balances with individual balances. Hence a sum of Rs. 6,406,597,746 had been shown as debit balances in sixteen accounts and a sum of Rs. 6,151,192,270 had been shown as credit balances in eleven accounts without being reconciled, which was identified as major system weaknesses. As a result the balances were accumulated over number of years. Audit test check revealed that it had been taken some times two months to update the customer balance after making the payment. Therefore the accuracy of water debtor balances shown in the account is open to question.

2.2.6 Noncompliance with Laws Rules Regulations and Management Decisions

Following instances of non- compliance were observed in audit.

	Reference to Laws Rules Regulations and Management Decisions	Noncompliance
(a)	Public Enterprises Circular No PED /12 of 2 June 2003	22 employees and 49 vehicles belonging to the Board had been released to other institutions and Ministries during the year under review.
(b)	Foreign Aid loan agreements.	
(i)	Section 3.03 of Article II of the loan agreement No 71001436 entered into between the GOSL and NWSDB on 10 December 2007 (Moratuwa/ Rathmalana Sewerage Project)	The audit in respect of the projects should be carried out by the Auditor General or by an external, independent and qualified auditor appointed by the Auditor General. However financial statements of these projects had not been submitted to audit from the inception although called for
(ii)	Section 4.03 of Article 4 of the loan agreement No SLP 90 entered into between the GOSL and NWSDB (Sewerage Disposal system for Kandy Municipal Area)	
(iii)	Section 4.03 (a) of Article 4 of the loan agreement No SLP 70 entered into between the GOSL and NWSDB on 23 September 2005 (Greater Kandy Water Supply Project)	
(c)	Treasury Circular No 842 of 19 December 1978	No register of fixed assets had been maintained as prescribed
(d)	Public Finance Circular No. 415 dated 06 May 2005	It is a requirement in the circular that all government agencies such as Ministries, Departments, Corporations, Statutory Boards including foreign funded projects, government owned companies which import cargo from foreign countries should make their purchases on Free On Board (FOB) terms or any other similar International Commercial (INCO) terms as stipulated in their letters of credit that the cargo should be transported on Ceylon shipping corporation vessels. However it was revealed that the NWSDB had not complied with this requirement in seven instances.

2.2.7 Lack of Evidence For Audit

Following items in the financial statements for the year under review could not be satisfactorily vouch in audit due to non- availability of detailed schedules, age analysis, confirmations etc.

Item	Amount Rs.
Other Debtors	47,984,264
Petty Cash Advance	375,350
Customer Advance	109,358,119
Retention	8,100,896
Tender Deposits	7,091,978
Regional Office Creditors	30,012,640
Salary Advances	69,672
Bonus Deductable	25,692,290
Short-term Deposits	68,279,844
VAT Receivable	6,954,307
New Connection	15,427,891
Unclaimed Salaries	4,132,032
Accrued Expenses	8,782,214
Withholding Tax	485,055
Withholding Vat	1,412,728
Total	336,261,721

3. Financial and Operating Review

3.1 Financial Review

According to the financial statements presented, the working of the Board for the year ended 31 December 2008 had resulted in a net loss of Rs. 2,863,322,634 as compared with the corresponding net loss of Rs. 1,278,373,190 for the preceding year, thus indicating a further deterioration of Rs1,584,949,444 in the financial results. The following table gives a summary of the financial results at various stages.

Year ended 31st December	2008 Rs.	2007 Rs.
Profit before charging overheads and other operating expenses	654,375,633	1,579,368,258
Loss from operating activities	(1,633,862,232)	(575,226,705)
Loss before Tax	(2,796,713,410)	(1,223,782,622)
Net Loss for the After Tax	(2,863,322,634)	(1,278,373,190)
Accumulated Loss	(7,752,893,868)	(4,555,450,599)

During the last six years the NWSDB had sustained heavy losses due to high rate of Non Revenue Water (NRW) and significant increase of pumping and personnel emoluments. Following charts show the adverse trend of the financial results and accumulated losses for the last six years of the Board.

3.2 Identified Losses

It was reported that cash frauds amounting to Rs. 171.94 million, Rs. 52.46 million Rs. 21.38 million and Rs1.8 million had been taken place at Trincomalee, Kelaniya, Ampara regional offices and Head office respectively, due to lack of proper financial and internal control. Investigations in this connection are being carried out by the Criminal Investigation Department. However a sum of Rs. 1.075 million had been refunded by the officers concerned in respect of the fraud at the Kelaniya Regional Office. The amount refunded had been shown in the accounts as a current liability whilst no other provisions had been made in the accounts with regard to these losses.

3.3 Operating review

3.3.1 Billing and Collection of water supply

(i) Significant differences were observed between the revenue on sale of water shown in the Financial statements and the records maintained by the Commercial Division of the Board and action had not been taken to reconcile the balances. The metered water sales and bulk water sales had understated by Rs. 1,061million and Rs. 27 million respectively as per records maintained at the Commercial Division of the Board. Further revenue generated through Bowser water sales had also been overstated by Rs. 8 million in the financial statements due to erroneous accounting.

(ii) According to the information made available, 64,593 number of water bills had been issued on estimated basis as at 31 December 2008 due to defective meters, unavailability of meters, inaccessibility to the premises or various other reasons. However, meaningful action had not been taken by the Board to minimize the estimated billing by focusing on controllable factors.

(iii) Investigation had not been carried out in respect of 91,939 customers where the consumption were stated as zero units. Out of which only 57,630 water connections or 62 % were disconnected in December 2008.

3.4 Performance of the Foreign Funded Water Supply and Sanitation Projects.

(a) Third Water Supply and Sanitation Sector Project Following observations are made in this connections.

(i) The Project had not prepared completion reports or progress reports as at 31 December 2008.

(ii) Consultancy charges and Value Added Tax amounting to Rs. 1,482,852,931 and Rs 877,045,181 respectively had continued to be shown as work in progress without being apportioned to the respective sub Projects, which had already been handed over to the Community Based Organizations due to non availability of a proper costing system.

(iii) It was observed that expenses incurred in the year 2003 amounting to Rs. 3,756,828 had not been reimbursed by ADB up to 31July 2009,though the applications for reimbursement had been submitted in 2004 along with supporting documents. Therefore foreign exchange to that extent appears to have been lost to the Government. Inquires had not been made to identify the reasons from the ADB in this regard to provide any clarifications needed by ADB to effect these claims.

(iv) Even though a sum of Rs. 18,011,164 had been released to six District Offices for sanitation facilities, only a sum of Rs 6,577,500 had been utilized and the reasons for the differences had not been explained. It was revealed that a sum of Rs. 1,684,000 had been utilized for civil construction works which was allocated for sanitation facilities in Monaragala District.

(v) It was observed that proper investigation had not been carried out to identify water resources in respect of 13 sub projects in Hambantota and Monaragala Districts, and as a result expected results had not been achieved. In addition there were 3 Rural Water Supply Schemes in Hambantota District, which had been abandoned after incurring expenditure of Rs. 22.9 million.

(vi) It was revealed at a test check carried out in Hambantota and Monaragala Districts, that most of the Rain Water Tanks had been underutilized due to lack of knowledge of the beneficiaries to use the rainwater effectively.

(vii) Due to low quality of water supplied for drinking purposes, 17 sub projects constructed in Monaragala and Hambantota Districts at a cost of Rs. 65 million were not in use for drinking purposes.

(viii) Two sub projects valued at Rs 19.8 million had been abandoned due to incompleteness of projects, inactive functioning of the Community Based Organizations (CBO) and poor monitoring. Further it was observed that the durability of the water tanks and filter tanks were at risk due to unavailability of water.

(b) Secondary Towns and Rural Community Based Water supply and Sanitation Project

Considerable delays had been occurred in respect of number of urban sub projects due to delays in obtaining survey reports, site investigations, changes in specifications, design works of the Water Supply Schemes etc. In addition, long delays in applying tender process had been affected the implementation of the Project activities. Even though the Project is scheduled to be completed by 30 September 2009, target dates of completion in respect of certain construction contract had extended beyond the Project completion date.

(c) Tsunami Affected Areas Rebuilding Project - Component - D

Following observations are made.

(i) The overall physical progress of the Project was only 45% as at the end of the year under review as compared with the completion of 87% of the Project period.

(ii) Though a sum of Rs. 488.8 million had been expended in respect of the water supply and sanitation activities as at the balance sheet date, the Project had not maintained a separate cost accounting system to identify the actual cost incurred on each activity. This could be considered as a major deficiency in respect of project management.

(iii) It was observed that certain expenses incurred by the Project for the year 2007 amounting to Rs. 3,297,368 equivalent to USD 30,184.5 had not been reimbursed by the ADB even by December 2008 due to lack of supporting documents and records.

(iv) Materials valued at Rs 4,740,353 provided to a Contractor by the Project to avoid the unnecessary delay, had not been taken into account as receivables.

(v) A sum of Rs. 23.4 million had been spent in the years 2005, 2006 and 2007 out of the Project funds to implement the balance work of the water supply project launched under the Third Water Supply and Sanitation Sector Project, which was not related to this Project.

(vi) A sum of Rs 2,173,048 spent in 2005 out of the local funds for the civil works of the Project had not been claimed for reimbursement from the ADB. Thereby foreign exchange to that extent had been deprived.

(vii) A sum of USD 3,154.55 being ineligible expenses had been incurred out of the revolving fund instead of local funds. These lapses had not been rectified even by December 2008.

(d) Eastern Coastal Water supply Scheme - Phase II

Following Observations are made in this regard.

(i) An over payment Rs. 5,071,300 had been made to the contractor through a variation order, due to lack of financial control.

(ii) An extra payment of Rs. 30,827,054 had been made as price escalation due to non adjustment of input proportion in respect of Reinforcement Steel when certain activities identified under local component were transferred to foreign component.

(iii) Customs duty had been paid by the Board on import of Iron for the Project. However this fact had not been taken into consideration in granting approval for the sale of balance items so imported in the local market.

(iv) The Evaluation Committee had not taken into consideration the difference of Rs. 1037.7 million between the engineers estimate and the bid value which represented 14% over the engineers estimate.

(v) Payments had been made without taken into consideration of the matters contained in the original estimate whilst certain major items in the estimate had been excluded and subsequently payment made treating as extra works of the contract.

(vi) A sum of Rs. 86,595,945 had been paid through variation orders for 16 major items which had not been included in the original estimate.

(vii) Although sand laying had been considered as a part of pipe laying when approving the engineering estimate, the contractor had claimed a sum of Rs. 18.6 million for the sand laying and out of which a sum of Rs. 3.6 million had already been paid to the contractor without measuring the sand or any other information relating to the quantity of sand used for this purposes.

(viii) Even though there was a dispute relating to the quality of water in relation to the activities of phase I of the water supply scheme, the phase II had also been commenced without considering the rectification of defects. As per report of the technicians of the treatment plant and those of the central laboratory of the Board the toxic level of drinking water had exceeded the allowable limits. However, the Board had not taken any action with regard to overcome this situation.

(ix) Security fences had not been constructed around the treatment plant in accordance with the original plan and specifications.

(x) Although the contractor had agreed to supply two electricity generators for the use of the Head office at Rathmalana ,no any generators had been supplied up to the date of this report. However it was observed that the capacity of the Generaters had not been specified in the agreement.

(xi) The pipe line laid between Konduwatuwan and Irrakkamam had been burst due to defects in laying the pipe line. It was further observed that the condition of the pipe line between Irrakkamam and Akkaraipattu had not been tested as per requirements.

(xii) Although this Project had already been commissioned and water connection had been provided to consumers in the areas, the water supply scheme had not been formally taken over by the NWSDB whilst the cost of the project had continued to be shown under work in progress.

(xiii) Following major deficiencies were also observed in connection with the completion of the Project.

(a) Only 80% of main distribution pipe line up to Uhana, had been completed.

(b) Pipe laying up to Damana had not been completed.

(c) Water sump, Pump house and the Water Towers at Bangalawadiya had not been utilized up to the date of the audit inspection carried out on 16 December 2008 due to unavailability of the necessary distribution pipe line. Expenditure amounting to Rs. 50,707,348.had been incurred in respect of these items.

3.5 Non Revenue Water (NRW)

The National Water Supply and Drainage Board was unable to account for Rs. 141.4 million cubic meter of treated water costing approximately Rs. 2,862 million during the year under review. Following observations are made in this regard.

(a) NRW percentage in respect of the Island-wide water supply is about 32.13%. However as compared with the other areas, the highest rate of NRW which represented of 54% had been accounted in the Colombo Municipal Council (CMC) area due to leakages, illegal connections, unbilled for stand post and Government housing schemes and estimated billing etc. Although a special unit had been established and several Projects had been implemented to reduce the NRW rates, the rates had gone up during the year under review as compared with the previous year as shown below.

Area	Percentage of NRW	
	2008	2009
CMC	53.96	53.19
Western - Central	41.31	37.86
Island-wide	33.09	32.13

(b) It was observed that the existing customers of the Board had highly compensated on their water bills by incurring an additional cost of Rs. 9.57 (approximately) per unit as at the end of the year under review due to NRW. .

3.6 Activities of Ground Water

Number of deep wells constructed by the Ground water section had gone down by 52% and success rate of the tube well digging had also decreased from 81% to 77% as compared with the previous year.

3.7 Budgetary Control

Significant variances were observed between the Budget and the actual thus indicating that the budget had not been made use of as an effective instrument of financial management control.

4. Systems and Controls

Weaknesses observed in systems and controls were brought to the notice of the Board from time to time. Special attention is needed in respect of following areas of control.

(a) Reconciliation of Control Accounts
(b) Fixed Assets
(c) Stocks
(d) Reduction of Non Revenue Water
(e) Accounting
(f) Implementation of Projects
(g) Capitalization of completed water supply projects
(h) Internal Audit

(Sgd.)
S. Swarnajothi
Auditor General

Abbreviations

AE	- Area Engineer
ADB	- Asian Development Bank
AGM	- Assistant General Manager
BOQ	- Bill of Quantity
CBO	- Community Based Organization
CEA	- Central Environmental Authority
CMC	- Colombo Municipal Council
CP	- Corporate Planning
CWS	- Community Water Supply
cu.m.	- cubic meter
cumec	- cubic meters per second
DANIDA	- DANish International Development Agency
Dev.	- Development
DGM	- Deputy General Manager
DI	- Ductile Iron
DS	- Divisional Secretariat
GM	- General Manager
GN	- Grama Niladari
GOSL	- Government of Sri Lanka
GW	- Ground Water
HPLC	- High Performance Liquid Chromatography
IA	- Internal Audit
ICTAD	- Institute for Construction, Training & Development
IT	- Information Technology
ITI	- Industrial Technology Institute
JBIC	- Japan Bank for International Cooperation
JICA	- Japan International Cooperation Agency
KfW	- Credit for Reconstruction
km	- kilo meter
m	- meter
M&E	- Mechanical & Electrical
MASL	- Mahaweli Authority of Sri Lanka
MD&T	- Manpower Development & Training
mg/l	- mili grams/ liter
MGD	- Million Gallons per Day
MIS	- Management Information System
mm	- mili meter
MOU	- Memorandum of Understanding
MWSD	- Ministry of Water Supply & Drainage
N/C	- Northern/ Central
NERD	- National Engineering Research & Development Centre
NHDA	- National Housing Development Authority
NPD	- National Planning Department
NRW	- Non-Revenue Water
NWSDB	- National Water Supply & Drainage Board
O&M	- Operation & Maintenance
OIC	- Officer In Charge
P&A	- Personnel & Administration
P&D	- Planning & Designs
PAC	- Project Appraisal Committee
PD	- Project Director
PS	- Pradeshiya Sabha
PVC	- Poly Vinyl Chloride
R&D	- Research & Development
RDA	- Road Development Authority
RSC	- Regional Support Centre
S&I	- Services & Instrumentations
S/E	- Southern/ Eastern
SCADA	- Supervisory Control and Data Acquisition
SEMA	- Strategy Enterprise Management Agency
SIDA	- Swedish International Development Agency
SLS	- Sri Lanka Standard
T&C	- Tenders & Contracts
TEC	- Towns East of Colombo
TCE	- Total Cost Estimate
TOR	- Terms of Reference
TSC	- Towns South of Colombo
UDA	- Urban Development Authority
UFW	- Unaccounted For Water
UNICEF	- United Nations International Children's Education Fund
uPVC	- Unplasticised Poly Vinyl Chloride
USA	- United States of America
USAID	- United States Aid for International Development
VAT	- Value Added Tax
WHO	- World Health Organization
WS	- Water Supply
WSP	- Water Supply Project
WSS	- Water Supply Scheme
WTP	- Water Treatment Plant

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