

## **Corporate Plans of the National Water Supply & Drainage Board**

<b>First Corporate Plan</b>	<b>1996 to 2000</b>
<b>Second Corporate Plan</b>	<b>1999 to 2005</b>
<b>Third Corporate Plan</b>	<b>2003 to 2007</b>
<b>Fourth Corporate Plan (present)</b>	<b>2007 to 2011</b>

**MINISTRY OF WATER SUPPLY & DRAINAGE  
NATIONAL WATER SUPPLY & DRAINAGE BOARD  
CORPORATE PLAN 2007-2011**

CONTENTS	PAGE
Executive Summary	
Overall Government Policy	1
Orientation towards the Millennium Development Goals	1
National policy and strategy on water and sanitation	1-2
Role of National Water Supply and Drainage Board	2
Investment in the Water & Sanitation Sectors	3
Operations	3
Highlights on the NWSDB's performance	3-4
Vision	5
Mission	6
Our Principles & Values	7
Our Functions	7
Goals, Objectives and Strategies	8-31
Abbreviations	32
List of Tables	
<i>Table 1 – Capital Investment on water &amp; sewerage</i>	3
<i>Table 2 – Planned Water Supply &amp; Sewerage Coverage 2006-2011</i>	10
<i>Table 3 – Access to safe water supply (%)</i>	11
<i>Table 4 – Capital Investment Programme</i>	12
<i>Table 5 – Expected % of NRW to be achieved</i>	14
<i>Table 6 – Expected service level increase</i>	16
<i>Table 7 – Financial Performance</i>	17
<i>Table 8 – Public awareness Programmes to be carried out</i>	20
<i>Table 9 – Targets for estimated bills</i>	23
<i>Table 10 – Targets for Collection efficiency</i>	23
<i>Table 11 – Targets for training</i>	29
<i>Table 12 – Safe water supply coverage as % to total population to rural &amp; marginalized communities</i>	31

## Executive Summary

In producing our Corporate Plan for 2007 – 2011, we have been very aware that it is important to have safe and effective water and sewerage systems to develop Sri Lanka. We are also conscious of the people's basic rights to have water and sewerage services and the millennium Development Goals we have pledged to achieve.

We have held workshops where our staff at all levels were asked to contribute their ideas in producing the Plan. This was important because our staff is our greatest asset and they be far more able to know what is required to be implemented in our Plan if they were involved in its preparation. We also have involved all our stakeholders in producing the Plan and had workshops where they, along with our staff contributed their ideas. We consulted the appropriate Government departments, the Ministry of Urban Development and Water Supply and discussed our ideas with the Strategic Enterprises Management Agency.

The NWSDB supplies piped water to only 30% of the population in Sri Lanka, the rest being provided through other sources. The percentage supplied by us will increase during the plan period but at the same time, we will ensure that our experience and knowledge is available to those communities which manage their own water supplies.

The plan period will see an increase investment in sewerage facilities. This is necessary not only to create a better and safer way to dispose sewage and reduce risks to health but also, to safeguard the underground water supplies against pollution as the demand for water increase.

We intend to improve our customer service during the plan period as we recognize that putting the customer first is the way that we will be able to determine how our business should develop. We have the expertise to provide the engineering and operational services but this is of limited use if these are not providing what the customer needs.

Whilst we accept that our goals are firmly committed to provide the basic services, we also realize that we must operate efficiently and that the best way to do this is to focus more on following commercial principals. This does not mean that we are seeking to maximize profit but means for example that we have an efficient billing and collection system, that our potential investment are fully appraised and that we get the best value for money from all our expenditure.

We recognize that we will never have full financial autonomy and that certain aspects of our activity such as setting to tariffs will always be regulated by external bodies. Also for the foreseeable future, we assume that we will be dependent on external loans and grants from financiers. However, we are managing our finances so that we can increase our financial self-sufficiency and identifying potential new income streams to reduce the burden on our customers.

Nevertheless it is almost inevitable that tariff increase will be necessary in future to finance the SLR 200 billion investment programme that is needed to meet our targets for the next five years. We will use good commercial practice and seek operational efficiencies to keep any tariff increase down to a minimum.

The action plans that we have developed to meet the goals allow for more delegation of authority to our regional units but at the same time this will be accompanied by greater accountability for their actions. The regional units will be set targets and we will measure and compare their performance. This will have the benefits of;

- Improving service to the customers as more decisions are made locally
- Providing the service more efficiently
- Motivating managers to perform well

We are also aware that we were unable to meet all the targets and goals that we set in our previous Corporate Plan. This was mainly because our targets were too optimistic and we were unable to obtain all the resources that were needed. This time we have tried to ensure that the targets and goals are realistic and that they are "challenging but achievable".

**MINISTRY OF WATER SUPPLY & DRAINAGE**  
**NATIONAL WATER SUPPLY & DRAINAGE BOARD**  
**CORPORATE PLAN 2007-2011**

**OVERALL GOVERNMENT POLICY**

The Government Policy is to uplift the living conditions of the people in towns and villages. With this in view, several town development programmes, highway projects, urban and rural water supply projects, urban sewerage projects, electrification programmes, irrigation projects and healthcare initiatives are being implemented. Furthermore, small and medium scale industrial development is being emphasised in every district. The National Water Supply & Drainage Board will fall in line with the Government development's programmes accordingly by implementing projects to cover all parts of the country.

**ORIENTATION TOWARDS THE MILLENNIUM DEVELOPMENT GOALS**

Sri Lanka has taken necessary action to orient the country's development plans closely to meet the Millennium Development Goals. These goals have been included into the national development framework to be implemented with the support of international donor agencies and local funds. In meeting the goal of "halving the proportion of people by 2015 with no access to safe drinking water or lacking the means to obtain it", the Government set the target of achieving a coverage of 85 % of the population with access to safe drinking water by 2015 and 100 % by 2025. The Government of Sri Lanka also considers access to safe sanitation as an inalienable right. It has set a target of achieving access to adequate sanitation for 87% of the population by 2015 and 100% by 2025.

**NATIONAL POLICY AND STRATEGY ON WATER AND SANITATION**

In achieving the government objective, the sector proposes to follow different strategies on the basis of "beneficiary affordability criterion". To follow suit, it is planned to develop pipe borne water supply and sewerage schemes in major towns and high population density areas at affordable prices and, in rural areas, community based, demand driven systems.

The water supply and sanitation policy spells out the basis of prioritising and allocating resources for the provision of these services. Health impacts and socio-economic factors are also to be taken into consideration in addition to the population density. It recognizes the need for safe and adequate water and sanitation facilities for the low income urban and rural community.

This policy specifies the involvement of Provincial Councils, Local Authorities, Community Based Organizations, Lending Institutions and External Support Agencies. While the NWSDB is taking major responsibility in the provision of facilities in the urban sector, Provincial Councils through Local Authorities and Non Government Organizations will play significant role in the provision of facilities for the rural sector.

Lending terms between the Government and the NWSDB for different types of investments have been detailed in this policy document.

In order to sustain service delivery the basis of cost recovery by way of tariff and periodic adjustment of tariff depending on any increase in direct or indirect costs have been included.

Protection of water bodies used as sources for water supply facilities, prevention of pollution, encouraging water conservation, reuse of water and minimization of the impact of wastewater discharges to the environment have also been described for adherence.

This policy is at draft stage at present and necessary approvals will be sought shortly.

### **ROLE OF NATIONAL WATER SUPPLY AND DRAINAGE BOARD**

The National Water Supply and Drainage Board, established under Act No. 2 of 1974, is responsible for the following duties.

- To develop, provide, operate and control an efficient, coordinated water supply and to distribute water for public, domestic and industrial purposes;
- To establish, develop, operate and control an efficient, coordinated sewerage system;
- To take over and carry on any water supply or sewerage undertaking under a voluntary transfer order or a compulsory transfer order;
- To supply water and distribute it or sell water in bulk or otherwise, to any Local Authority, any Government Department, any other institution or organization or any individual; and
- To do all other acts and things as may be necessary for the aforesaid purposes.

The NWSDB is a Statutory Board under the Ministry of Urban Development and Water Supply. The NWSDB is responsible for the development, operation and maintenance of piped water supply and sewerage schemes for the benefit of domestic, industrial, commercial and institutional sectors. During the past 30 years of its operations, the NWSDB has considerably expanded its coverage and service levels. It is presently operating about 290 water supply schemes and providing service facilities to about 30 % of the total population with pipe borne water and about 8 % of the population through tube wells installed with hand pumps. It covers 2.3% of the population with piped sewerage facilities.

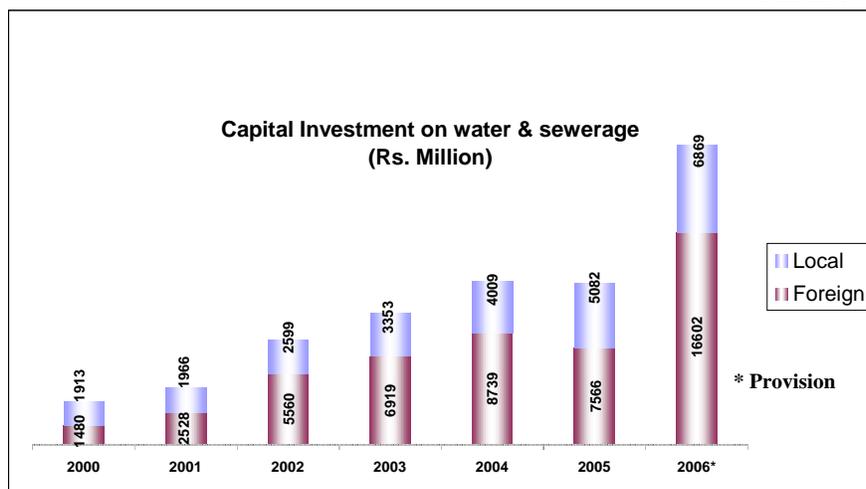
Although the main responsibility of the NWSDB is to develop piped water supply and sewerage schemes, over the years, it has implemented programmes to provide services to meet the medium and long term needs of rural communities with assistance received from several donor agencies. An example was the implementation of district based water supply and sanitation programmes using alternative sources and technologies.

In addition, the Regional Support Centres of the NWSDB provide technical assistance to rural communities to develop their water supply and sanitation needs on a regular basis. To meet this requirement, a large number of non governmental organizations, both national and international, are working with the NWSDB to provide technical support and, when need arises, to support the construction of ground water wells.

## INVESTMENT IN THE WATER & SANITATION SECTORS

NWSDB continued to receive financial support from the Government and donor agencies to sustain its capital development programme. The capital investment in the past few years is shown below:

Table 1



## OPERATIONS

During the year 2005, total water production of NWSDB was 383 million cu.m. and the total water consumption was 253.5 million cu. m. resulting in approximately 34 % of the total production as non-revenue water. Of the total consumption, the Greater Colombo water supply system accounted for 59% and contributed to 65% of the total revenue collection.

The responsibility of day-to-day administration, planning, procurement, capital works and operation and maintenance of water supply schemes are decentralized to RSCs, keeping the responsibilities of planning and design, managing capital investment of major donor funded projects, overall supervision of operation and maintenance of schemes, performance monitoring and financial management in the Head Office. Accordingly, annual budgets are prepared in the Head Office and funds allocated to RSCs on the basis of budget items.

## HIGHLIGHTS ON THE NWSDB'S PERFORMANCE

- Sale of water reached Rs. 5,446 million by 2005, an increase of 28 % over 2004 collection
- In 2005 revenue collection efficiency was 102 % and in 2004, it was 110 %, which reflect collection of previous year arrears
- In 2005, the average sale revenue per cu.m. of water was Rs. 21.5, an increase of 23 % over and above 2004 level
- By the end of 2005 the personnel costs reached 48 % and power cost reached 23.5 % of the total O&M expenditure
- Total number of customers increased to 907,620 in end 2005 while it was 841,500 in the end of 2004
- Number of staff per 1,000 connections in 2005 was 9.2 compared to 9.7 in 2004

The NWSDB was also facing several constraints in performing the responsibilities. Some critical issues were:

- The pollution of water bodies and water sharing issues were significantly affecting the activities of the NWSDB
- Inability to meet the customer demand for new connections and expansion of services; Critical issue is the difficulty of increasing production due to capacity constraints and non availability of funds for system extensions
- No autonomy to adjust water tariff to recover timely increase in operation costs. Continued increase of losses in the overall financial operations of the NWSDB; Although the NWSDB was earning operating surpluses, after allowing for debt service and depreciation, it ended up in losses, indicating that the Government had to take over part responsibility of debt service and almost full expenditure of system rehabilitation. It should however be noted that taking socio-economic conditions into consideration, most of the schemes are operationally viable.
- Inability to recruit essential staff for the operation and maintenance of water supply schemes; in some instances, this has affected adversely on the commissioning of schemes.

Strategies have been formulated in this Corporate Plan to overcome these constraints.

MINISTRY OF WATER SUPPLY & DRAINAGE  
NATIONAL WATER SUPPLY & DRAINAGE BOARD  
CORPORATE PLAN 2007-2011

**Vision**

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

**දැක්ම**

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**நோக்கம்**

தொழில்நுட்ப மற்றும் சேவைச் சிறப்பின் மூலம்  
இலங்கையின் அதிஉன்னத பொது வசதிகள்  
நிறுவனமாக இருத்தல்

MINISTRY OF WATER SUPPLY & DRAINAGE  
NATIONAL WATER SUPPLY & DRAINAGE BOARD  
CORPORATE PLAN 2007-2011

**Mission**

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

**මෙහෙවර**

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**குறிக்கோள்**

பாவனையாளர்களின் பூரண திருப்தியை  
உறுதிப்படுத்திக் கொண்டு குடி நீர் மற்றும்  
சுகாதாரத்திற்கான நிலையான தீர்வுகளை  
வழங்குவதன் மூலம் நாட்டிற்கு சேவை புரிதல்

## **OUR PRINCIPLES & VALUES**

- Commitment to total customer needs
- Motivation of staff towards creativity to achieve organizational objectives
- Maintain Ethics and Professionalism in all activities
- Facilitate for Prevention of Environmental Degradation
- Positive contribution to National Economic Growth respecting Government Policy initiatives
- Work as a Team with Honesty, Integrity and Transparency

## **OUR FUNCTIONS**

### **PRIMARY FUNCTIONS**

- Investigation, Planning, Design and Construction of Water Supply and Sewerage Projects with local funds and donor assistance. Carry out feasibility studies, cost estimation & Environmental Impact Assessment of such projects
- Operation and maintenance of Water Supply and Sewerage Schemes to provide satisfactory service to customers
- Billing and Collection through affordable tariff setting

### **SECONDARY FUNCTIONS**

- Human Resource Planning and Development
- Research & Development for service improvement utilizing innovative techniques
- Budgeting and Financial Control
- Publicity and Consumer awareness programmes on effective use of water and reduction of non-revenue water
- Corporate Planning and Strategic Management
- Laboratory Services for quality monitoring and control
- Technical Assistance to Community Based Organizations, Local Authorities, State Agencies and Private/ Public Sector Institutions
- Consultancy Services on water supply & sanitation
- Project formulation and Management
- Coordination with sector actors and stakeholders

- Information Management

**MINISTRY OF WATER SUPPLY & DRAINAGE  
NATIONAL WATER SUPPLY & DRAINAGE BOARD  
CORPORATE PLAN 2007-2011**

## **GOALS, OBJECTIVES AND STRATEGIES**

### **GOALS**

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

## **Goal 1 - Increase the water supply and sanitation coverage**

The Government goal is to provide access to sufficient and safe drinking water to 85% of the population of Sri Lanka by 2015 and 100% by 2025. The NWSDB is not however covering the whole of drinking water sector in the country and part of this provision will be done by other organisations.

### **1.1 To achieve piped water supply coverage of 40 % and piped sewerage coverage of 3 % of the total population of Sri Lanka by 2011**

The NWSDB's contribution to this national goal and the first objective of the Corporate Plan is to achieve water supply coverage of 40% and piped sewerage coverage of 3% of the total population of Sri Lanka by 2011. This will be done by identifying growth centres where piped schemes are technically and economically feasible and seeking the possibility to increase coverage where existing schemes are rehabilitated & augmented. Economic viability of projects should be appraised by a multidisciplinary team when selecting projects for capital investments

The selection of investment projects should particularly depend on scheme prioritisation, capital programme management and ability to deliver what was planned and clarity of funding arrangements.

One statistical feature is that the percentages have to be worked out in the context of increasing population so that an increase in the number of connections does not necessarily increase the percentage coverage.

#### **The implementation strategies are**

1. Identify new 'urban' growth centres where piped water supply schemes are technically and economically feasible
2. Identify new 'urban' areas for sewerage projects
3. Follow an integrated approach in the implementation of water supply and sanitation projects
4. Ensure social considerations in the planning process (coverage near headworks)
5. Ensure additional coverage during rehabilitation & augmentation of schemes
6. Identify and implement Rain Water Harvesting programmes
7. Appraise projects by a multi-disciplinary team of professionals to assess any

alternatives, correctness of Total Cost Estimates, economic viability and for better borrowing terms

## 1.2 To ensure high degree of water security with respect to quality and quantity for all water supply schemes

The second objective is to ensure high degree of water security with respect to quality and quantity for all water supply systems. This will be done by maintaining storage capacities, protecting against saline water intrusion and implementing awareness programmes to protect water sources and intakes.

The NWSDB needs to work closely with the Government, municipal bodies and the NGOs operating in the water sector to ensure that

- The national target is achieved
- Each part of the sector is clear as to its own responsibilities and
- The best use is made of national resources

### The implementation strategies are

1. Establish framework for water source security
2. Maintain storage capacities to ensure water security
3. Minimize saline water intrusion at water intakes
4. Obtain policy guidance from the Government to allocate a given % of water from water bodies for household use
5. Implement programmes to ensure that Water Quality is acceptable at water sources and intakes

### Planned Water Supply & Sewerage Coverage 2006 - 2011

Table 2

Year	2006	2007	2008	2009	2010	2011
Population	20,027,644	20,227,921	20,430,200	20,634,502	20,840,847	21,049,256
Pipe borne Water supply Coverage	6,208,570	6,472,935	6,946,268	7,428,421	7,919,522	8,419,702
Pipe borne water supply coverage (%)	31.1%	32.0%	33.9%	36.5%	38.2%	40.3%
Pipe borne sewerage coverage**	479,922	504,922	530,422	556,422	582,922	632,922
Pipe borne sewerage coverage (%)	2.4%	2.5%	2.6%	2.7%	2.8%	3.0%

The water supply coverage is shown in Table 1.1. Coverage will increase in all districts substantially. Special attention will be made to cover the poorest Divisional Secretary's

Divisions of the country.

### 1.3 To implement Rain Water Harvesting Programme

Rain Water Harvesting is becoming very popular in Sri Lanka. It is mainly demand driven but many consumers who are already served with piped water supply opt to harvest rain water to supplement their water needs. This enables drinking water to be shared among more users and ultimately delay any capital investment for augmentation of the facility. Therefore consumers who use rainwater will have lesser water bills as a result.

The government is pursuing a programme to encourage Rain Water Harvesting. In line with the above programme the Ministry of Urban Development & Water Supply submitted a Cabinet Memorandum on National Rainwater Policy and Strategies and obtained approval of the Cabinet of Ministers on 29.06.2005 for implementation. A Rainwater Harvesting Secretariat has been established in the Ministry to implement the National Policy and to pursue a programme to encourage Rainwater Harvesting.

The Rain Water Harvesting Secretariat conducts awareness programmes among school children, public and officers of public and private sector organizations regarding Rainwater Harvesting.

The NWSDB is supporting the efforts of the Rain Water Harvesting Secretariat to implement the above programme.

### 1.4 Safe access to water supply

The drinking water needs of the country is met by

- Piped water supply (provided by NWSDB, certain Local Authorities, the Estates Sector, Mahaweli Authority for the settlements)
- Small rural water supply systems using natural springs etc. managed by CBOs and NGOs.
- Protected dug wells (both private and community wells)
- Tube well / Hand pump installations and
- Rain Water Harvesting

The overall coverage anticipated over the period 2007-2011 is indicated as follows;

#### Access to safe water supply (%)

Table 3

	2006	2007	2008	2009	2010	2011
Pipe borne by NWSDB & other Municipalities	31.1	32	33.9	36.5	38.2	40.3
Pipe borne by other sector agencies	1	1	1	1	0.9	0.8
Protected Dug wells	34	33	32	31	31	30
Tube wells/ Hand Pumps	8	8	8	8	8	8

<b>Rain Water Harvesting</b>	2.0	2.4	2.7	3.0	3.3	3.6
<b>Overall Access to safe water</b>	<b>76.1</b>	<b>76.4</b>	<b>77.6</b>	<b>79.5</b>	<b>81.4</b>	<b>82.7</b>

## 1.5 Capital Investment Programme

The capital investment required to deliver the above pipe borne coverage is summarised below:

### Capital Investment Programme -Rs Million

Table 4

Investment	Rs. Million									
	2007		2008		2009		2010		2011	
	Water	Sewerage	Water	Sewerage	Water	Sewerage	Water	Sewerage	Water	Sewerage
<b>1. Projects under implementation</b>										
Domestic Funded (SIRUP)	2,465.0	45.0	1,882.8	100.0	1,461.1	316.0	-	-	-	-
Foreign Funded	21,386.4	3,621.0	12,614.4	2,755.0	6,581.0	2,300.0	355.0	772.0	-	-
<b>2. New projects with Cabinet Approval</b>										
Domestic Funded (SIRUP)	884.6	50.0	1,144.6	50.0	773.0	-	80.0	-	-	-
Foreign Funded	2,785.0	1,300.0	4,975.0	2,896.9	4,510.1	2,346.9	2,865.0	2,468.0	-	-
<b>3. Projects under negotiation</b>										
Domestic Funded	1,827.0	23.0	6,151.9	190.0	5,183.4	191.0	3,130.0	-	-	-
Foreign Funded	3,524.1	489.0	11,240.5	1,854.0	16,820.2	2,354.0	15,155.0	2,970.0	1,415.0	1,350.0
Future Projects							8,415.0	3,790.0	26,585.0	10,650.0
<b>Total</b>	<b>32,872.0</b>	<b>5,528.0</b>	<b>38,009.1</b>	<b>7,845.9</b>	<b>35,328.9</b>	<b>7,507.8</b>	<b>30,000.0</b>	<b>10,000.0</b>	<b>28,000.0</b>	<b>12,000.0</b>

The investment programme has been based on an assessment of need, practicality and potential availability of funds. Particular attention has been given to

- The fact that Colombo is very fast growing
- The needs to protect the poor
- The effects of the tsunami in 2004
- The need to provide for internally displaced persons
- The possibility of including rehabilitation of major schemes depending on the availability of finances

## 1.6 Capital Investment Programme Management

Delivery of the above programme is crucial for the NWSDB to meet its objectives. In recent years there have been problems in the allocation of necessary funds as programmed. When the allocation is less, the implementation of projects get stretched and the commencement of new projects will be delayed.

The allocation of capital funds will involve examining all stages of the process including

- Identification of need
- Prioritisation of projects
- Assessment of in-house design and supervision capacity
- Effectiveness of procurement policy

Capital programme management will be streamlined as one of the task areas to be covered within the Organisational Development framework of the NWSDB.

It will be a key feature of the Plan to ensure that the funds are available and in place when the projects are ready to start. The process of securing funds can be lengthy and it is unlikely that any major schemes where funding has not yet been secured can be completed before 2011.

The proposed funding policy is that the Government will remain the principal provider of funds to the NWSDB. This is mainly the on-lending of foreign funding through the Government to the NWSDB on the basis of

- Water supply projects in Municipal Council and Urban Council areas will be financed 50% by grant and 50% loan
- Sewerage investment to be 100% grant
- Piped water in Pradeshiya Sabha would be 85% grant and 15% loan
- Rural community water supply systems would be 100% grant

It is assumed that all major water and sewerage projects will be funded through foreign donors' loans and grants whilst minor rehabilitation and renovation will be financed through internally generated funds. The extent to which these funds will be available will depend on the overall financing of the NWSDB and in particular the ability to increase the tariff.

## 1.7 Asset Management and Rehabilitation Programme

One of the keys to successful service delivery in the future will be the renovation and rehabilitation of assets and ensuring that there is a programme in place to maintain the infrastructure. To assist in this process, an Asset Management Plan is being produced which will be a core element in the new IT system and it is being addressed under Goal 5.

## Goal 2 - Improve operational efficiency

One of the keys to successful service delivery in the future with a reasonable level of financial self-sufficiency will be for the NWSDB to operate more efficiently. This is seen in the terms of reference for the Strategic Enterprises Management Agency's [SEMA] reviews of the strategic enterprises and will be a factor to be taken into account when the NWSDB applies for tariff increases. The need was recognised by the development of this goal. Five main objectives have been identified.

### 2.1 To reduce NRW by 1 % per annum in Colombo city and achieve a 30 % national average

Facing the problem of all water utilities throughout the world, the NWSDB has an unacceptable amount of non-revenue water. This is broadly defined as the difference between water produced and water sold, that is water for which the NWSDB receives no revenue. The current NRW is approximately 34% of production and the objective is to reduce this by 1 % per annum in Colombo city and achieve a 30 % national average.

Programmes are being set in place to achieve this objective but it is not a simple exercise. The first stage is to identify the source of the losses and the second is to take the necessary action to reduce the leaks. This can require significant investment and a detailed appraisal needs to be carried out as to where action will be cost-effective.

There are specific problems where the NWSDB is required to maintain leaking water systems in government housing schemes and the NWSDB is to seek a solution to these problems with the Condominium Management Authority.

#### The implementation strategies are

1. Continue emphasis on NRW as an integral part of NWSDB operations
2. Identify short term and long term measures for reduction of NRW especially in water supply systems such as Greater Colombo
3. Finance short term measures through internal sources and long term measures through external sources

Expected % of NRW to be achieved is shown in the table below

*Table 5*

Regional Support Center/ Area	Expected NRW %				
	2007	2008	2009	2010	2011
Colombo Municipality (CMC)	50	49	48	47	46
Greater Colombo (Excluding CMC)	23	22.5	22	21.5	21
Greater Colombo (Overall)	34	33.5	33	32.5	30
Western	28	28	27.5	27	26.5
North Central & North Western	23	22.5	22	21.5	21

Southern & Uva	30	29.5	29	28.5	28
Central & Sabaragamuwa	35	34	33	32.5	32
North & East	35	34.5	34	34	33
<b>Island wide</b>	<b>33</b>	<b>33</b>	<b>32</b>	<b>31</b>	<b>30</b>

## **2.2 To improve and sustain quality of water supplied to National Standards (SLS 614: 1983)**

The second objective is to improve and sustain quality of water supplied to Sri Lanka Standards (SLS 614: 1983). This will mean ensuring that the most appropriate water treatment processes are introduced and that all treatment plants function effectively.

Plans will be implemented to carry out nation-wide water quality surveillance and laboratory facilities will be enhanced to carry out continuous monitoring of raw and treated water quality.

### **The implementation strategies include**

1. Ensure effective functioning of all water treatment plants
2. Introduce appropriate water treatment processes
3. Enhance Laboratory facilities and continuous monitoring of water quality
4. Carry out water quality surveillance programme island-wide

## **2.3 To increase service levels with an assured supply and adequate pressure**

It is appreciated that one of the most common frustrations of our customers is intermittent supply and unpredictability of supply. It is the objective to increase service levels with assured water supply and adequate pressure.

This will be done by making improvements to the system, implementing a preventative maintenance programme and improving the way the NWSDB attends to system breakdowns.

The NWSDB is also committed to assisting where rainwater harvesting can help increase the water supply available to properties.

### **The implementation strategies include**

1. System improvements to increase the supply level
2. Implement preventive maintenance programmes
3. Attend to system breakdowns promptly

Expected service level increase is shown in the table below

Table 6

RSC/ Areas	No. of Hours of Supply				
	2007	2008	2009	2010	2011
Colombo Municipality (CMC)	20-24	24	24	24	24
Other Municipalities	12-16	12-18	18-20	18-24	20-24
Industrial Zones	20-24	22-24	24	24	24
Other Urban Systems	6-12	6-12	12-16	12-18	12-18
Other Systems	6-8	6-8	8-10	8-10	10-12

*Note* : To reach 6m residual pressure with 24 hours water supply

## 2.4 To implement cost effective operations through increased Labour Productivity, Energy Efficiency and Treatment Process Efficiency

The objective is to implement cost-effective operations in three areas.

Labour productivity with institutional development plans to optimise the use of staff and potentially outsource non-core activities where it is more cost-effective to do so. The introduction of multi-tasking and the reduction in the number of grades of staff would be very beneficial to the NWSDB and also to the employees but the changes will have to be handled sensitively.

Work is already ongoing on increasing energy efficiency and power auditing studies. Energy is a significant cost for the NWSDB and it is important to ensure that the plant and equipment are being operated in an optimal way. The studies may reveal the need to replace inefficient plant and equipment and this will be appraised against the demand for capital investment.

There will be a general review of all processes at treatment works to assess efficiency. This will include a look at the whole life cost of a project to ensure that resources are available for plants to be operated properly after commissioning.

### The implementation strategies include

1. Optimize the use of staff and other resources, outsource non-core activities
2. Continue the energy efficiency programme

3. Optimize operations in water and sewage treatment plants

**Financial Performance**

*Table 7*

Criteria	Trend	Indicator	2007	2008	2009	2010	2011
1. Total Staff * for 1,000 connections	Decrease	$\frac{\text{Total Staff}}{\text{Connections}} \times 1000$	8.3	7.8	7.5	7.1	6.8
2. Power consumption	Decrease	% on total O&M	23%	23%	23%	22%	22%
3. Maintenance Expenses	Decrease	% on Total O&M	7.5%	7.5%	7.0%	7.0%	7.0%
4. Establishment Expenses	Decrease	% on Total O&M	10.5%	10.5%	10%	10%	10%

\* O&M staff supplied by labour contractors and service providers is included

**2.5 To implement Research and Development on technology and process improvement for enhanced operational efficiency**

It is proposed that research is carried out on activities where efficiency improvements may be gained. This will include research on the use of new technology.

**The implementation strategies include**

1. Conduct research & development on improving operational efficiency
2. Conduct research on cost saving operations
3. Conduct research on the possibility of using new technology

## **Goal 3 – Achieve customer satisfaction**

The goal of achieving customer satisfaction in all of the NWSDB operations demands commitment to total customer needs. This means not just informing and educating customers, but also identifying their values and needs, and delivering a service that meets these needs. It also requires that we recognize and operate in a very competitive economic environment. These are some of the ways in which the NWSDB will compete to be the most prestigious utility organization in Sri Lanka.

### **Investment Capital:**

There are many alternative demands for funding such as housing, roads, schools, hospitals, water and sanitation projects. Where the capital is from foreign sources, the demands are in many countries and not just in Sri Lanka. The NWSDB has to decide on investment needs in a manner that it is supported by the people of Sri Lanka.

### **Dues and Charges:**

Customers may avoid or delay paying dues, instead spending their limited resources on other necessities or saving up for luxury goods. They should be urged to pay regularly to ensure a good cash flow position for the NWSDB's operations.

### **Human Resources:**

The best employees will be attracted to the most interesting occupations; salary, conditions of work, intrinsic interest and value of the work influence their choice. Hence, the NWSDB should address these issues in dealing with its employees.

### **Others:**

Other less important elements of competition include public and news media attention, external sources of expertise, and the interest of the education sector. These matters should also be addressed to ensure customer satisfaction.

To ensure the success of its commitment to total customer needs in achieving customer satisfaction the NWSDB will seek to maintain its focus on its Consumers and coordinate all functions internally. We will follow the value discipline of 'operational excellence.' - the main characteristics of which are:

- All operations are efficient and well coordinated
- Business processes are highly efficient
- Service is standardized, easy to access and without unnecessary extras
- Needs of the customers to be diligently looked into
- Integrated high-speed information, systems to support business and operations
- High volume production to run consistently throughout the day, week and year

We will endeavour to ensure that all the NWSDB employees are part-time marketers. This means they understand and are enthusiastic about the value discipline and their part in it. We will as far as possible select and promote employees on the basis of their acceptance of the organization's norms and values. We will seek to link our accounting and information systems to the value discipline and will design, plan and manage our operations to focus on it. We will identify our customers' needs and will endeavour to meet those needs in preference to delivering only what we can produce most conveniently. In order to achieve this, the following objectives are identified.

### **3.1 To take prompt action on customer complaints**

One important area in achieving customer satisfaction is to attend to customer complaints, take appropriate action immediately and avoid repetition of the same complaints in future. While attempting to deal with the causes of complaints, we will see the complaints themselves as a gift from our consumers, in that they help us to improve our service.

If this Goal is to be achieved, it is important to categorize the complaints into different areas and develop an action plan to attend to those complaints. Since customer complaints would be on different aspects (complaints related to water bills, water leaks within premises and water leaks on distribution lines could be few such areas), such categorization would be helpful to attend to them quickly by different units. A restructured Management Information System will provide necessary information on customer complaints received and actions taken to verify whether the same complaints are being received and whether the number of complaints are getting reduced over time.

It is assumed that, with the implementation of the IT Project, more advanced accurate billing and recording system would be accomplished and public complaints on inaccuracies of bills and recording of payments would be straightened.

At present, only in limited water supply schemes a 24 hour supply is assured. In such schemes too, there are isolated pockets where the supply is limited to as low as three to six hours a day. Goal 2 refers to the plan to increase the supply levels to 24 hours, ensuring a minimum of twelve hours supply for all consumers. The customer service implications are, that we will prepare and implement an action plan to attend to consumer complaints on pipe bursts and water leaks to restore services within target times.

#### **The implementation strategies include**

1. Identify main areas of customer complaints and formulate procedures to attend to such complaints within target times
2. Train operational staff to improve customer relations
3. Ensure that the Management Information System (MIS) will include information on public complaints/ requests, action taken on them and expenditure incurred

### 3.2 To improve public relations through the implementation of public awareness programmes

In order to achieve public confidence, it is important to develop a strategy for improving public relations and also to implement a public awareness campaign through mass media. In fact every employee of the NWSDB, including meter readers, should talk in the same language about the policies and strategies of the NWSDB when dealing with the public. Quickly attending to public requests will further enhance public relations. At the same time we will seek to develop ways to receive feedback from the public, other than complaints, and we will take steps to review the progress.

#### The implementation strategy would be

Prepare and implement public awareness programmes

Goal 2 refers to the improvement of the quality of water supplied being one of the challenging objectives of the NWSDB. It is important to maintain the quality to maintain the health standards as well as customer confidence. The customer service implications are that we will implement public awareness programmes to use boiled water for drinking in addition to the public awareness programme mentioned above.

#### Public awareness Programmes to be carried out

Table 8

		2007	2008	2009	2010	2011
<b>Public awareness Programmes to be carried out</b>	Type	Schools/ Others				
	No.	20	30	30	25	25
<b>% Complaints unresolved</b>						
$\frac{\text{Cumulative no. of complaints unresolved} \times 100}{\text{Cumulative no. of complaints received}}$	%	10	9	8	6	5

## **Goal 4 - Increase commercial viability**

The goal of achieving increased commercial viability of the NWSDB's operations demands a market led approach. While satisfying the customer's values and needs, it must be recognized that we operate in a competitive economic environment. Further, the NWSDB needs to look at the way it does business, its financial controls and what it can do to generate funds to enhance its commercial viability.

Based on financial forecasts with a view to build a realistic planning margin, the water tariff system could be developed to cover all operating costs and to generate reasonable surpluses while taking suitable measures for operational excellence.

The major challenge, the NWSDB is facing today is managing the business risk. Identifying business risks is part of our process development through corporate planning.

To ensure the success of the market-led approach in achieving increased commercial viability, the NWSDB will seek to maintain its focus on its coordination of all functions internally through the following objectives:

### **4.1. To revise water tariff annually to meet the cost of operation and maintenance and associated indirect expenses, debt service, depreciation and to generate reasonable surpluses**

The revenue from the sale of water at present is barely sufficient to recover the operational expenditure and debt service; the NWSDB is not generating any surpluses for the rehabilitation of existing schemes. The cost of new investments and rehabilitation is being financed through either foreign assistance or Government sources. Donor funds rarely come as grants and loans increase the debt service of the NWSDB further. It is therefore opportune for the NWSDB to plan for generating surpluses to meet the cost of operations and minor rehabilitation with the adjustment of tariff to cover inflation, debt service and depreciation.

#### **The implementation strategies are**

1. Prepare a tariff policy to cover full cost of O&M, associated indirect expenses, debt service, depreciation and generate reasonable surpluses.
2. Adjust water tariffs annually to represent cost of inflation.
3. Prepare a policy for progressive financing of the Rehabilitation Plan.

#### **4.2 To Minimize issue of ‘estimated bills’**

There are considerable number of non metered or defective metered connections for which estimated bills are being issued. Roadside stand post supplies given through Local Authorities are also to be metered. A programme needs to be implemented to meter all connections and submit bills based on meter readings.

##### **The implementation strategies are**

1. Convert un- metered connections to metered connections
2. Replace defective meters

#### **4.3 To introduce sewerage service charge that covers operation and maintenance cost**

Although NWSDB manages several sewerage schemes including the largest schemes of Colombo Municipal Council, Kolonnawa Urban Council and parts of Dehiwala / Mount Lavinia Municipal Council, no service charge is levied to recover the cost of operation and maintenance. This has become one of the constraints for obtaining donor assistance for the construction of new piped sewerage systems in other urban centres of the country. The objective is therefore to develop and obtain approval to levy a sewerage service charge in order to sustain the sewerage systems in operation.

##### **The implementation strategies are**

1. Establish a sewerage service charge in line with the sanitation policy
2. Conduct a public education programme to explain the sanitary values of connecting to the central sewer systems
3. Implement a procedure to attract households to connect to the central sewer system

#### **4.4 To improve collection efficiency through reduction of bill payment period and reduction of bad debts**

For better cash flow management of the NWSDB, it is important to reduce both the period of accounts receivable and maintain bad debts at an acceptable level while taking measures to be more efficient.

##### **The implementation strategies are**

1. Establish new collection centres for customer convenience
2. Appoint ‘Authorized Collection Agents’ and agree on daily remittances
3. Devise a procedure for the recovery of outstanding debts

**Target for estimated bills**

*Table 9*

RSC/ Areas	% of estimated bills to total number of bills				
	2007	2008	2009	2010	2011
All island	10%	10%	8%	6%	5%

**Target for collections efficiency**

*Table 10*

Activity		2007	2008	2009	2010	2011
1. Collection efficiency	Target	100%	100%	100%	100%	100%
2. Accounts Receivables from						
a. Domestic & Commercial Institutions	Target (within)	60 days	60 days	60 days	50 days	50 days
b. Government Institutions	Target (within)	65 days	60 days	60 days	60 days	60 days
3. Bad debts (% of arrears)	Target	18%	18%	17%	17%	16%

## **Goal 5 - Ensure greater accountability and transparency**

One element of the USAID project on Institutional Development of the NWSDB was to make the NWSDB a commercially – oriented water supply agency by decentralising activities to the regions. It could be strengthened by giving greater responsibility to those required to carry out the actions, by providing awareness on financial regulations and better follow up system to monitor planned activities.

The NWSDB is preparing to gradually transform the status of the RSC to autonomous units. RSC functions are being extended to cover planning, designs Ground Water investigation and implementation of Rural Water Supply and Sanitation projects in addition to operation and maintenance. For this to be effective, there is a need to develop a whole range of management and business tools in the context of Human Resource Development, Management Information Systems and Preparation of Business Plans. Under the present tariff system, the customers in Colombo subsidise the customers in the rest of the country and the industrial customers subsidise the domestic customers. The financial accountability can be assessed by a transparent “subsidy” between Colombo and other regions. The result of the changes will be regional units focussed on delivery of agreed targets within a policy framework developed, reviewed and monitored by the Head Office.

The identified objectives are as follows

### **5.1 To improve financial control to ensure proper management of funds**

There were instances reporting mismanagement of revenue collection and misappropriation of funds at different levels. Loss of revenue adversely affects the short-term cash flow situation and precautionary measures need to be taken to stop such mismanagement of finances including stringent disciplinary action.

To address controls on expenditure and to implement in depth audits on key functions of our accounting and procurement system through development, the following strategies are identified:

1. Ensure compliance with established rules & regulations regarding accounting practices.
2. Introduce adequate internal checks & controls to weak areas & report non compliance for further improvements
3. Implement stringent disciplinary action against misappropriation of funds
4. Strengthen the Internal Audit Department with additional staff and logistics, including IA Units at RSCs
5. Introduce a system to reward those employees who provide information on misappropriation of funds

## **5.2 To decentralize financial and administrative authority in line with responsibility to form SBUs in Regional Support Centres (RSCs)**

It is important to identify appropriate administrative and financial functions and assign the necessary staff to decentralize more financial and administrative functions to RSCs. On satisfactory performance, additional responsibilities could be assigned.

In order to achieve the objective of transforming RSCs into SBUs to have greater autonomy but with greater accountability, a definite process has to be developed addressing the basic issues of implementing measures to overcome perceived obstructions. Setting up benchmarks is required to compare regional performance while rewarding excellence.

### **The implementation strategies are**

1. Identify the areas to decentralise administrative and financial authority to RSCs
2. Formulate a performance evaluation system to ensure effective supervision of decentralized authority

## **5.3 To develop, improve and implement a comprehensive Assets Management Plan**

The NWSDB does not have a comprehensive Assets Management System. It is essential to complete the Assets Register with age and value of all assets to assess the present worth. When a comprehensive assets management plan is formulated, a reliable Assets Rehabilitation Plan could also be formulated and implemented.

### **The implementation strategies are**

1. Prepare an Assets Register with age analysis and valuation
2. Identify and regularise legal ownership of properties, plant & equipment
3. Prepare and implement an Assets Management plan

#### **5.4 To improve the flow of management information (MIS) and coordination among Divisions to enable planning and monitoring of activities**

The NWSDB does not have comprehensive long-term financial forecasts and Business Plans. The IT system being developed at present will enable the NWSDB to strengthen long-term financial planning process and redesign the monitoring system to assess performance against targets timely.

##### **The implementation strategies are**

1. Include information requirement of all Divisions into the proposed IT system
2. Establish an Integrated Coordination System to all RSCs and Divisions of the NWSDB
3. Prepare Five Year Revenue Projections on 'rolling' basis to enhance decision making process

#### **5.5 To meet the debt service obligation of “Subsidiary Loan Agreements” with the Government**

The total debt service obligation of the NWSDB to the General Treasury is increasing due to new Subsidiary Loan Agreements. To improve the accountability of NWSDB's operations, it is important that all debt service obligations are met regularly.

##### **The implementation strategies are**

1. Update the Annual Loan Capital Payable statement together with the Loan Interest Payable giving due dates
2. Allocate cash flow to represent regular debt service payments, both capital and interest, on due dates

## Goal 6 - Institutional Development

The Institutional Development Project formerly implemented with assistance from the USAID defined Institutional Development as an “internal organisation development combined with harnessing the opportunities and countering the threats which exist in the external environment impacting the institution. Institutional Development can be used to change hearts and minds”.

Organisation development is the development of an institution’s effectiveness within the confines of it’s stated mission and culture. Institutional development takes account of wider institutional ramifications such as linkages with other authorities, sectoral goals and policies and possible modifications of the role of the institution within the external environment.

Institutional development is thus looking beyond the NWSDB to see where NWSDB fits in the national infrastructure. The importance of institutional development as a pre-requisite for the NWSDB to develop its full potential has been identified by various donor agencies which have allocated funds for the purpose. So far, little if any of these funds have been used and an assessment of the needs is being made to develop and implement a programme to meet the needs.

The motives of the program are

- Change attitude of employees at all levels towards achieving improved productivity and customer care
- Aim at achieving Corporate Goals
- All employees to work with a vision to achieve the goals
- Recognition of contribution of each employee through participatory approach

To assist the achievement of these objectives, the programme identified a range of activities for which foreign aid may be available. These have been analysed across the following broad spheres of activity

- IT and MIS
- Human Resources and Training
- Public Relations and Customer Service
- Operational Efficiency
- Quality Improvements
- Research and Development
- Management Initiatives

The list is currently being prioritised and costed and plans for implementation will be drawn up according to the availability of finance.

## **Relationship with other goals**

The achievement of this goal is critical for the achievement of other goals. Many goals require capital investment in physical assets but this goal requires investment in the employees which are the NWSDB's greatest assets.

The delegation and decentralisation in Goal 5 will only be successful if all of the employees are involved and have been trained for their new roles, are committed to the changes and know that the changes are not just for the benefit of the NWSDB but that they are also benefited.

Goal 3 addresses achieving customer satisfaction which also demands commitment to total customer needs. This means identifying their needs while attending to the complaints promptly and delivering a service that meets their needs through service excellence. It is expected to achieve service excellence through institutional development.

In the effort of achieving prestigious status while striving to be operationally efficient in areas such as reducing NRW, improving and sustaining quality, improving service levels, implementing cost effective operations and research and development, NWSDB employees have to play a major role especially through their attitudinal change for better performance.

## **Management Information Systems**

One major Institutional development step has already been taken with the establishment of the Indian financed IT project to cover Customer Information, Purchases, Inventory Management, Asset Management, Human Resources & Payroll, Maintenance & Repairs, Financial Accounting, Billing & Collection and Consumer Grievances. Care is being taken to ensure that the needs of all the stakeholders of the system are identified in advance. If implemented successfully, the new systems will revolutionise the way that the NWSDB operates and its position as a forward looking customer service organisation will be enhanced.

Two objectives have been established which encompass the essence of what is described above

### **6.1 Achieve performance excellence through change of attitude of employees**

**This is to be achieved through the following strategies**

1. Provide opportunities to all divisions to make use of available resources based on agreed criteria to achieve excellence
2. Recognize employee contribution through participatory decision making (for better, faster and more effective work)
3. Improve work processes in all Divisions
4. Make aware the need for change of attitudes and inculcate sense of ownership (Start a small change – each of us. Change begins with you and me)
5. Motivate employees to work with dedication
6. Recognize contributions from professionals of all disciplines
7. Introduce information technology for improved performance
8. Monitor ID activities at higher management level
9. Receive quality and performance awards from independent institutions

## 6.2 Prepare and implement a Human Resource Development (HRD) Plan

This is to be achieved through the following strategies

1. Develop HRD Plan
2. Develop and implement a Staff Training Plan that includes continuous training, hands-on experience and new technology
3. Maintain a safe, secure and enabling working environment
4. Develop and implement comprehensive employee welfare scheme

Targets for training

Table 11

Description	Unit of Measurement	2007	2008	2009	2010	2011
In-house Training	No. of Programs	150	150	160	160	160
In- Country External Training	No. of Persons	240	240	250	250	250
Overseas Training	No. of Persons	75	75	80	80	80

## **Goal 7 - Provide facilities and service support to rural and marginalized communities**

The Government and donor agencies provide financial assistance through the NWSDB for the construction of groundwater wells installed with hand pumps and for the provision of community based water supply and sanitation facilities for the benefit of rural communities. NWSDB, being the most experienced organization in the water supply and sanitation sector, shall provide facilities and services to other organizations dealing with the provision of water supply and sanitation services to rural communities. Sanitation, Health Education and Schools awareness programmes are done in consultation with the Ministry of Health. Since the NWSDB is not directly involved in the operation and maintenance of these systems developed for rural communities, it is essential for it to ensure 'value for money' strategies to the Government. Three main objectives have been identified.

### **7.1 To increase safe water supply and sanitation coverage to rural and marginalized communities**

A component of several major projects funded by various donors is directed towards the welfare of rural and marginalized communities. These are labour intensive and low cost options usually with point source water supply and on-site sanitation. Instead of serving the facility on payment, the communities contribute their skills and manpower towards the project cost. Hence the strategy adopted to mobilize the beneficiaries from the initial stage of the project up to the stage of operation and maintenance is unique from that of urban facilities.

In addition, the Government may continue to provide assistance to the Rural Water Supply Unit to continue with the tube wells drilling programme.

#### **Implementation strategies are**

1. Carry out awareness among rural and marginalized communities on their health and hygienic status
2. Facilitate safe drinking water supply and sanitation to rural and marginalized communities
3. Follow a participatory approach in planning, design, construction and, operation and maintenance of community water supply and sanitation facilities

## 7.2 To provide advisory services on best options

The objective is to provide technical and support services to expand the water supply and sanitation coverage in the rural sector. There are a large number of local and foreign organizations willing to invest for the benefit of rural communities. The systems developed would be operated and maintained by the communities with no obligation to the NWSDB. The cost of providing support services could be separately identified and recovered by arrangement with the Community Based Organizations.

### Implementation strategies are

1. Update and disseminate Standards, guidelines, norms, procedures and best practices by the NWSDB
2. Implement public awareness programmes on the nature of support services available from RSCs on rural water supply and sanitation and hygiene education
3. Provide ‘watch dog’ facility for rural water supply and sanitation through establishment of a Unit in the RSCs

## 7.3 To ensure ‘value for money’ for the services provided to rural and marginalized communities

The Operation and Maintenance of rural water supply and sanitation systems developed utilizing various investments is carried out mainly by Community Based Organizations. The total investment is made for the benefit of the communities and they are expected to take care of the assets while managing the system. The NWSDB will organize and supervise the communities for the development of the facilities, formation of the CBOs and the operations ensuring ‘value for money’ invested by the Government.

### Implementation strategies are

1. Coordinate with stakeholders including Provincial Councils in providing facilities to the rural communities
2. Make aware among communities to find most affordable options
3. Encourage maximum contribution by the communities
4. Ensure sustainability of community water supply and sanitation facilities

The expected contribution towards safe water supply taking into consideration, the efforts made by the NWSDB is as follows;

*Table 12*

Safe water supply coverage as % to total population, to rural and marginalized communities	2007	2008	2009	2010	2011
Rural Water Supply by the NWSDB (Managed by CBOs)	4.5	4.5	5.0	5.5	6.0
Tube Wells/ Hand Pumps	8	8	8	8	8

## **Abbreviations**

NWSDB	- National Water Supply & Drainage Board
RSC	- Regional Support Centre
O&M	- Operation & Maintenance
NGO	- Non-Governmental Organization
IT	- Information Technology
NRW	- Non-Revenue Water
CMC	- Colombo Municipal Council
USAID	- United States Assistance for International Development
IA	- Internal Audit
MIS	- Management Information System

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