

ANNUAL REPORT

2014



Water Resources Board

No. 2A, Hector Kobbakaduwa Mawatha

Colombo - 07

www.wrb.gov.lk

Annual Report - 2014

Water Resources Board



1. Introduction

The Water Resources Board was established in 1966 under the Act No. 29 of 1964, as an advisory body to the Minister on all matters concerning the control and utilization of the Water Resources in Sri Lanka.

In 1978, Groundwater Division of the Irrigation Department was transferred to the Water Resources Board and functions of the Board were expanded and commenced the implementation activities.

The Water Resources Board Act was amended and passed by the Parliament in 1999 to enable the Water Resources Board to pay more emphasis on matters pertaining to Groundwater Resources in Sri Lanka.

2. Vision

Adequate access to clean and safe water for all

3. Mission

To advise the government and the people on assessing, conserving, harnessing, developing and frugally utilizing particularly the finite groundwater resources in the country working in close collaboration with the rural society, relevant central and local government departments/ divisions/ authorities/ institutions, national and international organizations, and scientific communities here and abroad.

4. Objectives

- i. Carry out research on groundwater resources of the country.
- ii. Collection of data on groundwater resources and maintain a groundwater data base.
- iii. Carry out hydrogeological surveys
- iv. Awareness creation on the groundwater related issues.
- v. Assessment of groundwater resources.
- vi. Implementation of the activities of the board with the coordination of other institutions
- vii. Groundwater development and management.

5. Functions

- i. Carry out research on groundwater resources of Sri Lanka
- ii. Interpretation of data on groundwater resources development
- iii. Carry out hydrogeological surveys to detect groundwater resources
- iv. Identification of groundwater potential zones
- v. Identification of groundwater sources by using geo scientific methods
- vi. Carry out studies for groundwater resources development
- vii. Analysis of water samples, chemically, bacteriologically and for heavy metals
- viii. Collect and maintain groundwater data and preparation of hydrogeological maps

6. Director Board

- i. Mr. Bandula Munasinghe - Chairman
- ii. Dr. Sisira Kodagoda - Working Director
- iii. Mr. M.A.P. Hemachandra - Director
- iv. Mr. R.B.C. Rathnamalala - Director
- v. Mr. R.M.C. Rathnayake - Director
- vi. Mr. Asanga Dayaratne - Treasury Representative

6.1 Board Meetings

Five (05) Board meetings were held in the year under review.

6.2 Audit and Management Committee

- i. Mr. Asanga Dayaratne - Chairman - Treasury Representative
- ii. Dr. Sisira Kodagoda - Member - Working Director
- iii. Mr. M.A.P. Hemachandra - Member - Director
- iv. Mr. R.B.C. Rathnamalala - Member - Director
- v. R.S. Wijesekera - Secretary - General Manager

6.2.1 Audit and Management Committee Meetings

Four (04) audit and management committee meetings were held during the year 2014.

6.3 Senior Executive Officers – year 2014

- i. Mr. R.S. Wijesekera - General Manager
- ii. Mr. G.R.R. Karunaratne - Deputy General Manager (Development & Research)
- iii. Mr. A.B.M. Chandrasiri - Assistant General Manager (Finance)
- iv. Mr. M.A. Pushpakumara - Assistant General Manager (Administration)
- v. Mr. Nihal Wellalage - Assistant General Manager (Drilling) Retired on 23.12.2014
- vi. Mr. P.P.S.R.K. Pathirana - Assistant General Manager (Operations)
- vii. Mr. M.J. Deshapriya - Assistant General Manager (Engineering)

7 Operational Activities Performed in the year 2014

7.1 Treasury Funds

Under the Treasury funds, the following research studies were conducted with the coordination of Head office and Provincial Offices in year 2014.

- i. Hydrogeological study on the coastal sandy aquifer extending from Colombo to Negombo (see 8.1)
- ii. (Development of groundwater monitoring network in Jaffna Peninsula (see 9.3.1)
- iii. Water quality changes studies in Anuradhapura district (see 10.4.1)
- iv. Hydrogeological study on limestone aquifer in Mannar district (see 11.8)
- v. Hydrogeological study at Kilinochchi and Vavuniya districts.. (see 9.3.2)
- vi. Study on the possible direct and indirect impacts of climate change on coastal aquifer system in Sri Lanka.

7.2 Generated Funds

On the requests of various Government Institutions, Non-government organizations and Individuals, groundwater development activities were conducted in each province during the year 2014. Hydrogeological Investigations, Pumping Tests, Chemical and Microbiological Analysis of water samples were mainly done in this regard. Details of those works are given under the provincial offices.

7.3 Capacity Building

In 2014, five Hydro-geologists, ten Management Assistants and twelve minor employees were recruited to strengthen the capacity. The Hydro-chemical laboratory of Jaffna Office was newly constructed. The facilities of geophysical and chemical laboratories were upgraded under Treasury funds and Dam safety and water resources development projects. Following equipment is provided to enhance the quality of hydro-geological, hydro-chemical and geophysical surveys conducting by the Hydrogeology Division.

- | | |
|--------------------------------------|------------------------|
| (a) Two Nos. Mobile Laboratory Units | (d) Bench to pH Meters |
| (b) Three Nos. Drilling Rigs | (e) Sterilization Oven |
| (c) Server (GIS Unit) | |

8 Western Province

8.1 C.N Project

Hydrogeological study on the coastal sandy aquifer extending from Colombo to Negombo

Introduction

Detailed hydrogeological studies of the coastal sandy aquifers extending from Colombo to Negombo have been commenced in 2011. The main aim of the study is to establish groundwater monitoring network with dedicated monitoring test boreholes in order to collect temporal data on groundwater quality changes and water table fluctuation. The test boreholes were expected to construct at most sensitive and vulnerable areas for groundwater deterioration due to over abstraction and industrial and domestic pollution.

The activities done in the year of 2014 as follows.

- Collected 239 number of water samples to analyze chemical parameters
In-situ chemical testing were done for EC using field test kits.
- Installed 01 protection chamber at 01 test well to install the data logger.
- Completed 28 hydrogeological and geophysical investigations.
- Constructed 05 test boreholes .
- Constructed 05 Observation wells.
- Completed 26 pumping tests.
- Analyzed pumping test data using different analysis methods to calculate aquifer parameters.
- Measured water levels of test wells .
- Detected boundary conditions of the study area for the conceptual ground water flow model.
- Leveled 78 test wells using DGPS.



Figure1: pumping tests



Figure 2: Well leveling

Accordingly, the final report has been completed including the methodology, results, conclusions and recommendations.

The main recommendations of the project as follows.

1. Although there is no evidence of industrial pollution of ground water, water level and the quality of water should be measured systematically and the testing parameter of water should be add or remove according to the changes of water quality.
2. Other possible recharge and discharge sources should be considered and collect information besides the rainfall.
3. Detailed pumping tests should be done using high capacity pumps to quantify the amount of Groundwater
4. Since the main recharge source is rainfall it is important to consider the land area which is infiltration is happening, when the constructions are proceeding.
5. A Groundwater flow model should be developed to predict the future issues regarding the over abstraction and pollution.

8.2 Generated funds work performed under Western province in year 2014

Head office (Western province) has conducted 181 nos. hydrogeological investigations, 29 nos. construction of tube wells, 6 nos. pumping tests, 40nos. water samples analysis in chemically and 245 nos. water samples analysis in bacteriologically.

9 Northern Province

9.1. Establishment of a Laboratory

In 2014, There was no any new instrument were added to our laboratory as it was already complete with many instruments like, Drying and Sterilizing oven, Bench-top pH meter kit and Bench-top EC meter, Glassware and laboratory safety items were added to already established laboratory of Jaffna office in 2013. So, now we have a complete well established laboratory with the facilities to do chemical and bacteriological tests in it.



Fig 1 : Inside views of the Jaffna Laboratory

On going Projects

9.2. Dam Safety and Water Resources Planning Project

An awareness program was held in 2014 and continue monitoring activities of already established monitoring network.

9.3. Treasury Grant Projects

There are two projects under the treasury grant funds.

1. Jaffna well monitoring project
2. Vavuniya-Kilinochchi Project (Kilinochchi District)

9.3.1. Jaffna Well Monitoring Project

This water quality monitoring project was an on going project for the Jaffna Peninsula in 2014. Completed the sampling for both wet and dry seasons of 2014 and analyzed. Number of pumping tests has been done to find the aquifer properties. Number of Geophysical investigations has been completed and selected for test well drilling. In addition, samples from some new locations for isotope analysis were collected for groundwater recharge studies with atomic energy authority. Six test wells (tube wells) has been constructed under this project. Also samples from these tube wells were collected and analyzed. Also submitted the Progress report for 2014. Monitoring network for the project area has been established and will continue monthly monitoring activities in 2015.

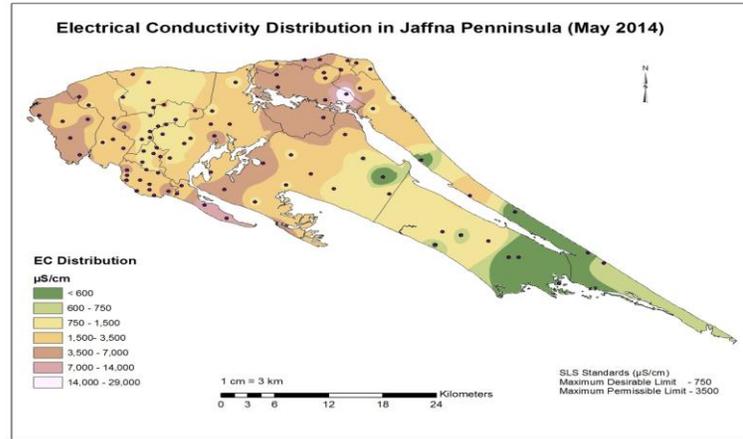


Fig 2: EC Distribution Pattern in Post Monsoon 2014

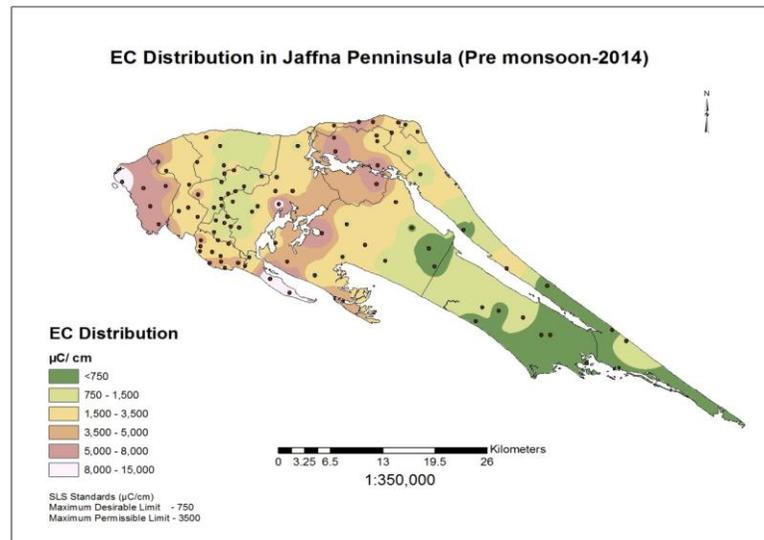


Fig 3: EC Distribution Pattern in Pre Monsoon 2014

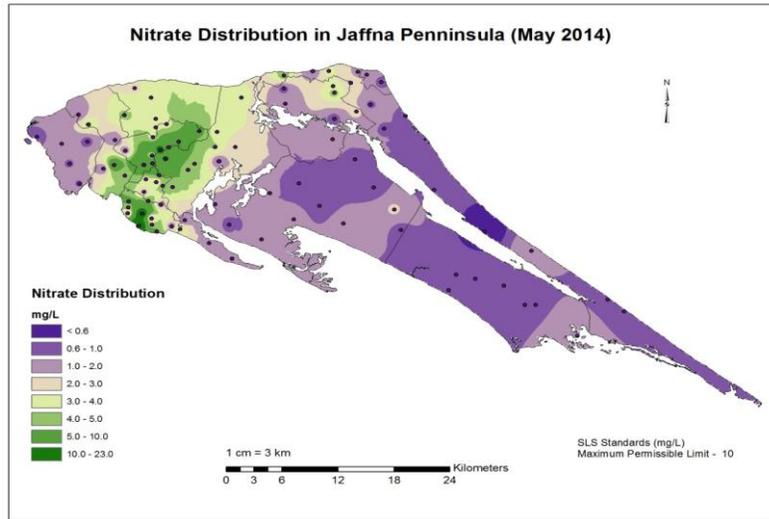


Fig 4: Nitrate Distribution Pattern in Post Monsoon 2014

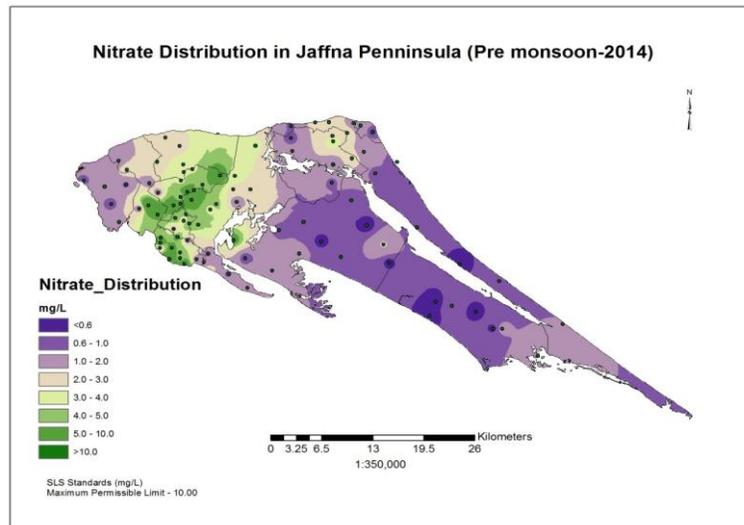


Fig 5: Nitrate Distribution Pattern in Pre Monsoon 2014

9.3.2. Hydrogeological study in Kilinochchi District (Vavuniya-Kilinochchi Project)

This is a part of Vavuniya-Kilinochchi Project and was on going in 2014. Sampling and Chemical analysis has been done in dry season 2014. Some extra locations were added in 2014. Chemical distribution maps have been prepared. Also submitted the Progress report for 2014. Rest of the project activities will be continuing in 2015.

9.4. Awareness Programs

An awareness Program on outcomes of our studies in Jaffna Peninsula was conducted in Jaffna Kachcheri under chairmanship of Government agent of Jaffna. Senior Hydrogeologists and a consultant from WRB head office were participated.



Fig 6: GA Jaffna, DGM (R&D), WRB officers and other participants in the awareness program held in the GA's auditorium.

9.5. Commercial Activities

The following tables show the details of monthly income from commercial activities and the summery of total annual income from each activity.

Annual Income from Jaffna Provincial Office in 2014

MONTH	CHEMICAL ANALYSIS (BACT & CHEMI)		GROUND WATER INVESTIGATIONS		TUBE WELL DRILLING		PUMPING TEST	
JANUARY	9184	00	-	-	-	-	-	-
FEBRUARY	38,864	00	30,800	00	-	-	190,624	00
MARCH	21,291	20	30,800	00	-	-	-	-
APRIL	12,062	40	-	-	-	-	38,080	00
MAY	9,475	20	-	-	179,600	00	-	-
JUNE	19,784	80	60,480	00	-	-	-	-
JULY	20,008	80	-	-	-	-	-	-
AUGUST	48,311	00	61,600	00	-	-	-	-
SEPTEMBER	67,412	00	129,360	00	-	-	-	-
OCTOBER	43,368	00	-	-	-	-	39,984	00
NOVEMBER	106,881	60	-	-	-	-	-	-
DECEMBER	32,928	00	-	-	188,160	00	-	-
TOTAL	432,571	00	313,040	00	367,760	00	268,688	00

Table 1

Summary of Annual Income – Jaffna Provincial Office in 2014

Activities	Amount (Rs)	
Laboratory Analysis (Bact & Chemical)	432,571	00
Groundwater Investigations	313,040	00
Tube Well Drillings	367,760	00
Pumping Tests	268,688	00
Total	1,382,059	00

Table 2

9.6. Lands for offices and Laboratories

The search of a Land for Jaffna permanent office is still continuing due to lack of land in close proximity to Jaffna town and to A9 road.

Furthermore, we have given an important attention for Dengue prevention matter as we did in previous year. Also held number of Dengue prevention day programs such as cleaning in and out environment of office premises. Every Friday morning an hour was allocated for that.

10 North Central Province

10.1 Commercial Activities

In order to fulfill the domestic, agricultural and industrial water requirement of the people and government and private institutions in Anuradhapura, Polonnaruwa, Vavuniya, Matale, Kandy, Mulativu, Trincomalee, Jaffna and Kilinochchi districts, the following activities were completed during the year 2014.

Table 01 : Activities carried out during the Year 2014

S.No.	Activity	Units	Income (Rs.)
01	Hydrogeological investigations	69	2,569,448.00
02	Construction of deep tube wells	46	14,516,560.00
03	Installation of hand pumps	42	4,614,400.00
04	Pumping tests	17	2,522,896.00
05	Water Sample analysis	210	500,247.60
06	Training Program	01	71,680.00
07	Accommodation facilities at Circuit Bunglow		272,080.00
08	Accommodation facilities at Training Centre		5,152.00
Total			25,072,463.60

Total income earned by the North Central province for the year 2014 was Rs. 25 million. The details of the above mentioned activities are as follows;

10.1.1 Carried out hand pump fitted tube well program for the resettlement community in Kilinochchi district with the assistance of Re-a awakening project, Ministry of Economic Development in Kilinochchi District. The project was implemented in Kandawali, Karachchi and Poonakary Divisional Secretariat Divisions and thirty two (32) wells were constructed under this project.

- 10.1.2.** Carried out hand pump fitted tube well program for the resettlement community in Mulativu district with the assistance of Re-awakening project, Ministry of Economic Development in Mulativu District. The project was implemented in Maritimpattu, Oddusudan, Thunukkai and Mantai-east Divisional Secretariat Divisions and Ten (10) wells were constructed under this project.
- 10.1.3.** With the assistance of Community Base Organization (CBO), Productive deep wells were constructed to supply drinking water for peoples in Nochchiyagama, Palugaswewa, Galnewa, Rambawa and Palagala DS Divisions.
- 10.1.4.** Carry out detail hydrogeological survey to identify the high groundwater potential zones in deep ground in order to supply groundwater for drinking and agricultural activities for private institutions in Matale, Kandy, Anuradhapura, Mulativu and Vavuniya districts.
- 10.1.5.** Carried out detail hydrogeological, geophysical and geological studies to identify the environmental issues due to excavations of gravel for development activities at Kabitigollawa.
- 10.1.6.** Conduct pumping tests for dug wells and deep wells at Kandy, Anuradhapura and Trincomalee districts to identify the safe pumping rates of the wells without any adverse effect to the environment.
- 10.1.7.** The Water samples collected from various projects and institutions were analyses by the laboratory affiliated to the provincial Office. Two hundred and ten (210) samples were analyzed chemically during the year 2014.
- 10.1.8.** Detail Hydrogeological and geophysical investigation was carried out at wild life conservation park at Delft island to assess the groundwater potential zones as well as to identify the favourable sites for construction of dug wells to supply water for horses living in Delft Island.
- 10.1.9.** With the assistance of World Vision Lanka, a training program on “Qualitative & Quantitative aspects of drinking water” was conducted for grass root level officers at Nawagattegama in Puttalam District.

10.2. Training programmes and Water Clinic

With the intention of controlling the CKD (Chronic Kidney Diseases) and other water related diseases spreading over the dry zones of the Sri Lanka, the training and awareness program with water clinics were organized by the Water Resources Research and Training Centre to educate rural people in those areas. For the year 2014, funds for the program was provided by Treasury. The Programme was implemented in two phases, targeting the rural people in the affected areas.

10.2.1. Three - days residential training

Three days residential awareness programmes were conducted at the centre for government officers including Grama Niladharies and Development Officers, Participants are provided with food and lodging free of charge. Eight (08) three-day training programs were conducted during the year 2014 and 172 government officers were attended for the program from Anuradhapura and Kurunegala Districts (Table 02) Different subjects related to water have been introduced to

participants under the training programme by Water Scientists and Medical professionals in different fields.

Table 02: The details of participants

District	DS Division	Duty Bearers	
		Development Officers	Grama Niladhari
Anuradhapura	Galnewa	02	
	Palugaswewa	08	
	Kekirawa	02	
	Medawachchiya	08	
	Thalawa	08	02
	Nochchiyagama	10	02
	Rajanganaya	10	02
	Manupa	06	02
	Thambuththegama	06	02
	Ipalogama	10	
	Galenbindunuwewa	02	
	Nenupa	04	02
	Horowupathana	08	
	Medawachchiya	02	
	Palagala	09	
	Thrappane	05	01
	Kebithigollewa	13	02
	Kahatagasdigilliya	04	
	Rambewa	10	
	Nachchaduwa	04	
Kurunegala	Polpithigama	10	
	Giribawa	04	
	Ambanpola	06	
	Ehetuwewa	04	
Total		157	15

10.2.2. Water Clinics (Jalasyana)

Farmers, rural population and school children should be educated through the awareness programs to minimize the water borne diseases in the affected areas. With the support of Medical Officers and Duty bearers, community base awareness programs (Jalasyana/water clinic) were conducted in the most affected DS divisions in the Anuradhapura district. Seven (07) Water clinics were conducted at Anuradhapura districts during the year 2014 (Table 03). The “Jalasyanaya” include

mainly five folds, namely, distribution of leaflets, presentations, water analysis, distribution of fluoride reducing filters and distribution of set of clay pots.

Table 03: The details of Water clinics conducted during the year 2014

S.No	D.S.Division	Location / Village	No of participants Attended	No of water Sample analysed	No of filters distributed	No of clay pots distributed
01	Galenbindunuwewa	Ellawewa	62	102	30	-
02	Mahavillachchiya	Thanthirimale	28	40	-	-
03	Mahavillachchiya	Mahavillachchiya	184	115	40	12
04	Ipalogama	Ipalogama	58	64	12	15
05	Kahatagasdigiya	Kahatagasdigiya	133	165	20	15
06	Thalawa	Dangahakadawala	91	118	28	15
07	Galnewa	Bulnewa	71	73	24	15
Total			627	677	164	75



Figure 05: Water analysis using Mobile laboratory

10.3. INSTALLATION OF REVERSE OSMOSIS (RO) FILTERS

Generally, Water quality in drinking water sources in many areas of Anuradhapura district is poor due to presence of excess minerals in water such as Fluoride, Hardness, etc The people who consume such contaminated water over a long period have become prone to a number of water borne diseases. Therefore, Water Resources Board has introduced and installed the Reverse Osmosis (RO) filters at Schools and Clinics centers to supply safe water for school children and peoples in affected areas. Since January to December, forty four (44) RO filters were installed at following places.

Table 04: Installation of RO filters

S. No.	Location
01	Kandawa Maha Vidyalaya
02	Issinbassagala Vidyalaya, Madawachchiya
03	Walagambahuwa Vidyalaya, Maradankadawala
04	Mahakoongaskada Vidyalaya, Poonawa
05	Puleliya Vidyalaya, Madawachchiya
06	Kudakanumullawa Vidyalaya, Thirappane
07	Paindikulama Vidyalaya, Maradankadawala
08	Mahanama Primary School, Thrappane
09	Punchkulama Vidyalaya, Thirappane
10	Dhaham Pasala, Thalaguru Raja Maha Viharaya, Galkulama
11	Orukmankulama Vidyalaya, Uttimaduwa
12	Sri Sealawansa Maha Vidyalaya, Kuttikulama, Siwalakulama
13	Dambagollawa Vidyalaya, Siwalakulama
14	Anura Maha Vidyalaya, Hurulunnikawewa, Galenbindunuwewa
15	Thakshila Maha Vidyalaya, Galenbindunuwewa
16	Dhaham Pasala, Sri Sambodhi Viharaya, Hinguruwewa, Galenbindunuwewa
17	Dhaham Pasala, Sri Vapikarama Viharaya, Kalanikawewa, Galenbindunuwewa
18	Ashokamala Vidyalaya, Kandurupitiya, Dunumadalawa
19	Mahaelagamuwa Vidyalaya, Kekirawa
20	Ittikulama Vidyalaya, Ranorawa, Nochchiyagama
21	Lindawewa Vidyalaya, Nochchiyagama
22	Vidyartha Maha Vidyalaya, Yaya 05, Rajanganaya
23	Ipalogama Vidyalaya, Udunuwara Janapadaya, Nochchiyagama
24	Navodya Maha Vidyalaya, Yaya 05, Rajanganaya
25	Nallamudawa Vidyalaya, Eppawala
26	Selasthimaduwa Vidyalaya, Nachchaduwa
27	Clinic Centre, Thirappane
28	Navodya Vidyalaya, Andiyagala
29	Mawathwewa Sri Dharmaraja Vidyalaya, Mailagaswewa
30	Thambuttegama Model Primary School, Thambuttegama
31	Galwaduwegama Vidyalaya, Eppawala
32	Dhammadinna Vidyalaya, Galkulama
33	Siwalakulama Seewali Maha Vidyalaya, Siwalakulama
34	Muriyakadawala Vidyalaya, Muriyakadawala
35	Amunuchchiya Vidyalaya, Muriyakadawala
36	Uttimaduwa Vidyalaya, Uttimaduwa
37	Dunumadalaewa Vidyalaya, Dunumadalawa

38	Kukulkatuwa Vidyalaya, Ranorawa
39	Paiimaduwa Vidyalaya, Siwalakulama
40	Aluthwewa Galmaduwa Vidyalaya, Mahailuppallama
41	Labunorwa Pandukabaya Maha Vidyalaya, Thirippanae
42	Aluthwewa Galmaduwa Vidyalaya, Thirappanae
43	Ratmalwetiya Primary School, Hurulunikawewa
44	Ranpathvila maha Vidyalaya, Kahatagasdigiya

10.4. RESEARCH STUDIES

Water Resources Board has initiated the research projects on Water quality and quantity of different aquifer systems in Anuradhapura, Vavuniya, Polonnaruwa and Trincomalee districts. The details of projects conducted in year 2014 are as follows;

10.4.1. Water quality Changes in Aquifer Systems and Identification of zones with hazardous minerals containing in water in Anuradhapura district

The study was commenced under treasury grant in year 2011 and study was completed in year 2014. Main objective of the study is to identify the water quality distribution in surface water, shallow and deep ground water aquifers in different drainage basins in Anuradhapura district and to make specific recommendations for further studies on water quality distribution including long-term monitoring. Since January to December, following activities were completed under this project.

Table 05: Activities Carried out during the year 2014

No.	Activity / Description	No. of items
01	Hydrogeological investigations to delineate most suitable sites for construction of test wells	20
02	Drilling of test and observation bore holes	19
03	Yield test to determine aquifer parameters	03
04	Levelling of test bore holes to determine groundwater flow patterns	25
05	Collection and analysis of water samples for full chemical analysis and heavy metals	161
06	Well monitoring	18
07	Preparation of geochemical and hydrogeological maps	

10.4.2. Hydrogeological study in Vavuniya district

The research was initiated in year 2013 in Vavuniya district under Treasury grant. The project objective is to identify the aquifer parameters, its extensions and demarcates the groundwater sources for small scale irrigated agriculture and for drinking purposes of the people in the district with the intention of upgrading the living standards of the people.

Specific objectives of the study is to identify groundwater potential areas and to see the possibility of developing groundwater sources for future drinking water and small scale irrigated agricultural projects.

Since January to December, twenty two (22) geophysical investigations were conducted and eight (08) test wells were drilled in the study area. The details of that test bore holes as follows,

Table 03: Test wells drilled in Vavuniya district during the year 2014

Test Bore hole No.	Activity / Description
TW 07	Kanagarayankulam
TW 08(OW)	Parayanalankulama
TW 09	Nedunkani
TW 10	Puliyankulam
TW 11	Omanthai
TW 12	Palamoddai
TW 13	Mutaliyarakulam
TW 14(OW)	Mutaliyarakulam

10.4.3 The study on the possible direct and indirect impacts of climate change on coastal aquifer system of Sri Lanka

The research was initiated in year 2013 in Trincomalee district under Treasury grant. The project objective is to identify the water issues related to the climate change. The specific objectives of the study are determination of the rainfall pattern of the coastal area, identify salinity level changes in coastal aquifer system of Sri Lanka through proper groundwater monitoring network, examine potential for introducing regulatory mechanism as well as using other instruments for optimum use of groundwater, develop comprehensive data base on groundwater and identify locations suitable for artificial recharge to groundwater.

Since January to December, twelve (15) geophysical investigations were conducted and twelve (12) sites were selected for the drilling test holes.

10.4.4 Water Quality study in CKD prevailing area in Polonnaruwa & Trincomalee district.

This study was commenced in year 2014 in Trincomalee and Polonnaruwa Districts under Treasury grant. The main objective of this study is to identify the water quality distribution in CKDU affected areas in Polonnaruwa and Trincomalee.

During the year 2014, the list CKDU patients of the Polonnaruwa district were collected and sociological survey was done in Medirigiriya DS division in this survey, twenty two (22) water samples were collected in Medirigiriya and analysed water samples for As, Cd, Pb, pH, EC, Total hardness, Ca, Mg, Fe, Nitrate, Turbidity, TDS and Sulphate.

11 North Western Province

The details of the activities commenced during the year of 2014 as given below;

- 11.1 Carried out detail hydrogeological surveys, Tube well drilling, Pumping test and water quality analysis under the "Dayata Kirula" National Development Programme at Arachchikattuwa, Chilaw Nawagaththegama, Mahakubukkadawala, Mundalama, Pallama, Puttalama, and Kalpitiya, DS divisions.

The income: Rs. 10,013,276.00



11.2 Carried out detail hydrogeological surveys, Tube well drilling and water quality analysis for **Community Base Organization(Funded by themselves)** and miner water supply schemes (Praja_Mula) at Puttalam, Anamaduwa, Pallama, Kalpitiya, Mundalama, Dankotuwa, Arachchikattuwa, Vanathawilluwa, Madampe, Naththandiya and Nawagaththegama DS divisions.

The income: Rs. 3,427,101.00



11.3 Carried out detail hydrogeological surveys, Tube well constructions, well cleaning, Pumping tests and water quality analysis for the **Privet party** in Puttalam, and Kurunegala districts.

The income: Rs. 8,127,571.00



11.4 To assess the environmental impact due to the sand and gravel mining and metal quarry activities, the Hydrogeological and geophysical surveys were carried out at the respective lands and provided technical guideline and recommendations to minimize the environmental impact due to these activities and submit the reports to Central and Provincial Environmental authorities.

The income: Rs. 1,156,288.00



11.5 Carried out detail hydrogeological surveys, Tube well drilling, well cleaning, Pumping test and water quality analysis for **Government sector** such as CEB, NWS&DB and NLDB in Puttalam, and Kurunegala districts. **The income: Rs. 2,127,176.00**



- 11.6 To identify the impact on groundwater due to **filtering and reprocessing of waste and used oil plant** at Vanathavilluwa and the *waste water management process* of Jacobi carbon factory at Nattandiya, **The income: Rs. 221,070.00**



- 11.7 Conducted awareness program on importance of ground water and its quality at the Mundal divisional secretariat for members of the Diriya Community base organization. **The income: Rs. 15,523.00**



- 11.8 Under Hydrogeological study on limestone aquifer system in Mannar district under treasury grant project, 30 Hydrogeological investigations, 08 test well drilling, 85 water sample analysing, 55 well leveling and well monitoring programmes were conducted in the study area.



- 11.9 Under the Identification of suitable areas for Groundwater Recharge in Sri Lanka (Phase I-Puttalam District) funded by treasury grant there were carried out about 30 Hydrogeological and Geophysical investigation, 96 water sample analysis (for Nitrate,Electrical Conductivity and Total Iron) and 07 test well drilling.

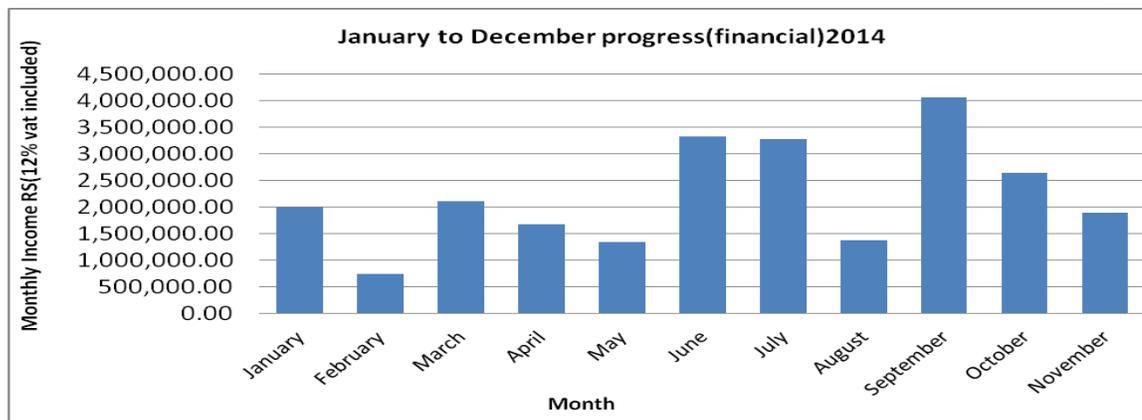
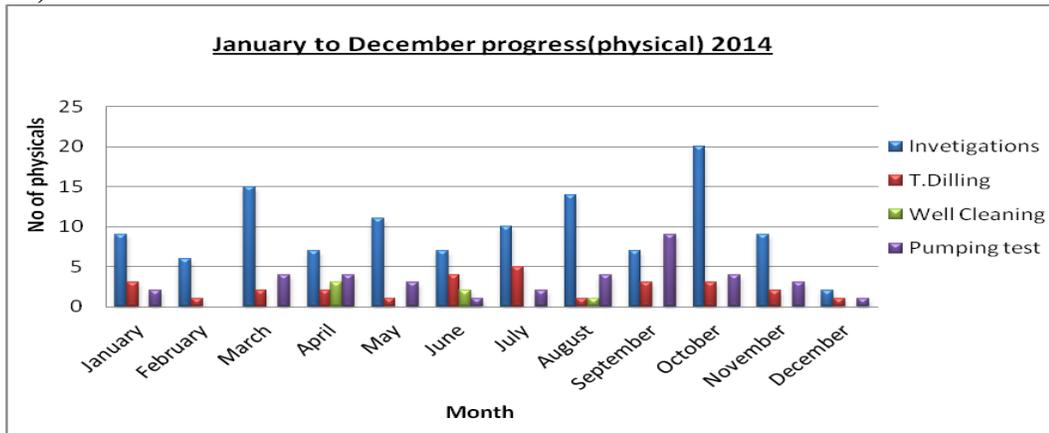


11.10 Under the water quality study in CKD prevailing areas of Kurunegala district under treasury grant project, data was collected from RDHS office Kurunegala, Pradesiya Sabawa Polpithigama and water samples were collected for heavy metals analysis in Polpithigama DS Divisions



Including government and private party hydrogeological activities carried out in the year 2014 (From January to December) as follows. The total number of groundwater investigations are 117, the tube well constructions are 28 and 37 numbers pumping test were carried out. 06 number of well cleaning were carried out and 211(not including Project samples) numbers water samples were tested.

The total income of Provincial office Puttalam of the year 2014 from January to December, is Rs. **25,072,482.00**



12 Southern Province

12.1 Hand pump repair works and tube well construction works in Moneragala district under GA funds and DRRP funds.

❖ **GA funds (According to the request made by the chief minister uva province, the programme was conducted during the savior drought period in Moneragala district.)**

1. Hand pump repair works: 33
2. Tube well cleaning works: 26
3. Construction of tube wells: 04
4. Ground water investigations: 05

❖ **DRRP funds in Moneragala District**

1. Construction of new tube wells (including investigations): 02
2. Hand pump repair works: 73

12.2 Hand pump repair works and tube well construction works in Badulla district under DRRP funds.

❖ **DRRP funds In Badlla District**

1. Ground Water investigations: 20
2. Construction of new tube wells: 07
3. Hand pump repair works: 77

12.3 Tube well construction works under CKD project in Badulla district

1. Ground Water investigations: 46
2. Construction of new tube wells: 28
3. Water sample analyze for chemical including heavy metals: 28

Location list of project works in Badulla District

Following ground water investigation works, drilling works and hand pump installation works in Badulla district had been completed during the year 2014 under the CKD and DRRP project. Water testing for chemicals including heavy metals such as AS, Cd, Pb were done under CKD project.

Under CKD Project			
Serial No.	location	Recommendation	remarks
01	Zonal irrigation director office,Bandarawela	Selected for hand pump	Pump Installed
02	Gonagalagomawaththa	Selected for hand pump	Pump Installed
03	Miriyabaddauwaboudamadyasthanaya	Selected for hand pump	Pump Installed
04	Eltabwaththa, kinakale	Selected for hand pump	Pump Installed
05	Madolsima, weralapathanadumo	Selected for hand pump	Pump Installed
06	Kahataruppa, thalagahaagedara	Selected for hand pump	Pump Installed
07	Weelspark, near to Uwamahavidyalaya	Selected for hand pump	Pump Installed
08	DikkapitiyaVidyalaya	Selected for hand pump	Pump Installed
09	Mirahawaththa Sri Pushparamaya	Selected for hand pump	Pump Installed
10	Galgelanda, soranathota	Selected for hand pump	Pump Installed
11	kiriwankatiya, hawandana	Selected for hand pump	Pump Installed
12	Udakiwelegedara, Ambalameyaya	Selected for hand pump	Pump Installed
13	Morahela, Migahakiwla	Selected for hand pump	Pump Installed
14	Akutukaduwa Junction, Migahakiwla	Selected for hand pump	Pump Installed
15	ViriyapuraBauddamadyasthanaya	Selected for hand pump	Pump Installed
16	Mailagasthanna Ground, Mailagasthanna	Selected for hand pump	Pump Installed
17	Walawwaththa, Alugolla	Selected for hand pump	Pump Installed
18	10th post temple, Migahkiwla	Selected for hand pump	Pump Installed
19	Matigasthannaihalakotasa, Udawela	Selected for hand pump	Pump Installed
20	VidyothanshaPiriwena	Selected for hand pump	Pump Installed
21	virashakthivinayagarkovil, kandagolla	Selected for hand pump	Pump Installed

22	thaldena prison	Selected for hand pump	Pump Installed
23	lihiniyakatiya village, thaldena	Selected for hand pump	Pump Installed
24	karamatiyawawpiiya, migahakiwla	Selected for hand pump	Pump Installed
25	walithuduwakaradagamadaMigahakiwla	Selected for hand pump	Pump Installed
26	wel kale gamamada, katakallagama	Selected for hand pump	Pump Installed
27	Alugollagalwalaasala, alugolla	Selected for hand pump	Pump Installed
28	Bogahamadiththa, singhepura	Selected for hand pump	Pump Installed
Under DRRP project			
29	Himbutuweldowa, Boralanda	Selected for hand pump	Pump Installed
30	Galabada Ella Village	Selected for hand pump	Pump Installed
31	Rilpola Primary school	Selected for hand pump	Pump Installed
32	Kandedegarasarniyahindumadyasthanaya	Selected for hand pump	Pump Installed
33	Saraswathi School	Selected for hand pump	Pump Installed
34	Narangala Temple	Selected for hand pump	Pump Installed
35	Polwaththa Temple	Selected for hand pump	Pump Installed

12.4 Project (Establishment of Groundwater Monitoring for Sri Lanka project, water supply scheme sites data were collected in Sothern province and Uva Province.)

1. Data collection works of water supply schemes

a. Hambantota District :56 sites

b. Moneragala District :31 sites

c. Nuwaraeliya District :03 sites

d. AmparaDistric : 06 sites

2. Construction of two no of tube wells for study purposes in Habmantota District

- **Commercial Works**

- **Southern Province**

Following Geophysical surveys and Hydrogeological studies have been completed during the year 2014 from the provincial office Hambantota covered by Uva and Southern provinces

1. Detail groundwater surveys were done to full fill the water requirement of proposed prison site at Agunukolapalassa. Five no. of locations were selected for tube well drilling.
2. Ground water investigation works were carried out and reports were submitted to Ekamuthu community based organization for selection of suitable sites for drinking water supply project at Dedduwawala.
3. According to request made by the Director, Department of National Zoological Gardens, hydrogeological and geophysical investigations were carried out to find a suitable location for proposed Ridiyagama safari park.

13 Uva Province

- 13.1 A groundwater investigation, construction of deep tube well and pumping test were conducted to supply water to Uma oya resettlement site at Dybaara, Walimada.
- 13.2 A groundwater investigation and construction of deep tube well were completed at Alikotan are site for water supply to TBM under Uma oya project.
- 13.3 A groundwater investigation was conducted and report was submitted to supply water to Uma oya resettlement site at Mirahawaththa, Walimada.
- 13.4 A groundwater investigation was conducted and report was submitted to supply water to Uma oya resettlement site at Moragolla estate, Walimada.
- 13.5 Groundwater investigation works were carried out and report was submitted to Dilcokinapitiya nature resort and spa (pvt) Ltd for selection of suitable sites for water supply of proposed hotel site at Kinapitiya, Damminiyathanna.
- 13.6 24 hours Pumping test was carried out at Dole Lanka farm, Demodara and report was submitted to the client.
- 13.7 Two no of 48 hours Pumping tests of tube well were done at Demodara farm and reports were submitted to Dole Lanka (pvt) Ltd.
- 13.8 One no of 48 hours Pumping tests of tube well was done at Kudaoya farm and reports were submitted to Dole Lanka (pvt) Ltd.
- 13.9 A groundwater investigation was done to get water and the report was submitted for a proposed an Organic Agricultural Farm site at Dambana.
- 13.10. A groundwater investigation and construction of deep tube well were done for water supply to Ridimaliyadda regional Mahaweli office in Ridimaliyaddarequested by Mahawali Authority.

- 13.11 A groundwater investigation and construction of deep tube well were done for water supply to Agri farm in Kumaragama, Tnamalvila.
- 13.12 A groundwater investigation was conducted and report was submitted to supply water to tea estate at Maligathanna, Haputhale.
- 13.13 Groundwater investigation works and tube well drilling works were completed for water supply to Dameria estate requested by AGA, Passara.
- 13.14 Three no of production tube wells were constructed to proposed Dole lanka farm at Nikawewa, Thanamalwila.
- 13.15 2D Ground water investigation works were carried out and reports were submitted to Dole Lanka Company for selection of suitable sites for water supply of banana cultivation at Demodara in Moneragala district.
- 13.16 2D Ground water investigation works were carried out and reports were submitted to Dole Lanka Company for selection of suitable sites for water supply of banana cultivation at Wakadawewa, Buththala.



2D Ground water investigation in Kudaoya Dole Lanka farm

- 13.17 Moneragala Hospital Works.
- a. Tube well cleaning at health circuit bungalow at Katharagama
 - b. Five No. of Water samples were analysis for chemical
 - c. Water pump dismantling, repair works, installation works and cleaning of tube wells were done in Moneragala hospital under water supply scheme of hospital.

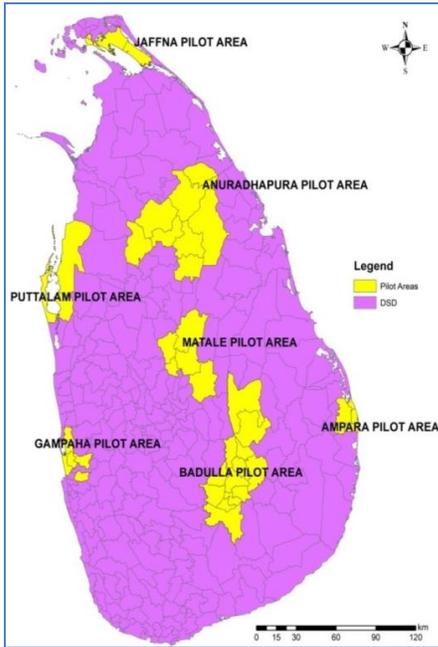
- 13.18 Five No. of hand pumps tube wells were constructed in Ridimaliyadda area under World Vision fund.

14. Design & Establishment of Groundwater Monitoring networks in identified Pilot areas: Component - 2/ DSWRPP

The study was started in 2011 considering the need of establishing the groundwater monitoring networks in the country to identify the status of the groundwater chemistry and implement a protection mechanism through continuous monitoring. Eight pilot areas were selected as an initiative under DSWRP project to develop and establish a groundwater monitoring network in the identified areas that deemed to be both impacted and under threat due to the various causes.

The below table indicates the pilot areas and associated issues.

Pilot area	Issues	DSD'S	District (Km ²) (Approximately)
Area 01	Bacteriological and Extensive Agriculture pollution	Jaffna Town, Nallur, Tenumarachchi, South island.	Jaffna peninsula
Area 02	Extensive Agriculture	Kalpitiya	Puttalam 168
Area 03	Over extraction of water from Agro wells	Dambulla, Gelewela, Laggala- Pallegama, Naula, Pallepola	Matale 1200
Area 04	Kidney disease	Medawachchiya, Nuwaragampaltha (central), Kebithigollawa, Rambawewa, Horowpathana, Kahatagasgogiliya, Padaviya, Galenbindunuwewa	Anuradhapura 1990
Area 05	Industrial pollution	Gampaha, Ja-ela, Wattala, Biyagama, Katana	Gampaha 376
Area 06	Salinity	Puttalam, Vanathawillu	Puttalam 1012
Area 7	Extensive Agriculture	Samanthurai, Ninthaur, Karathive, Adallachchnai	Ampara
Area 8	Qualitative assessment	Mahiyangana, Ridimaliyadda, Passara, Bibila, Ella, Welimada, Bandarawela, Hali Ela	Badulla 2861



The final monitoring networks for these areas were established for long term monitoring after various activities (as per the work methodology) were completed in first phase of DSWRPP (2011-2014).The following activities were primarily carried out during the period of 2014.

Awareness programs

Awareness programs were continuously organized to aware and for set up of necessary remediation plan on the issues the relevant stakeholders from Governmental & non-governmental organizations.

Continuous long term Monitoring

Monitoring on the locations of the established networks of each pilot area were carried out periodically from 2014 depending on the water quality variations and vulnerability, importance etc.

Awareness programs

For these awarenessprogrammes, the stake holders from governmental organizations (Divisional Secretariat, Health Department, NWSDB, Agriculture and Agrarian Services,PradhesiyaSabas& provincial council members), NGOs and INGOswere participated.

These second round of awareness programs wereconducted at the pilot areas in order to aware the stakeholders and other state sector officers about the outcomes of the project and the measures to be taken to mitigate the impacts identified by the monitoring program with remedial plans. Such awareness programs were already organized and conducted by Water Resources Board at Anuradhapura and Puttalam pilot areas in 2013 and **continued for Jaffna and Ampara areas in 2014**. In these programs the stakeholders, government officers and other all responsive bodies were aware by WRB on the present status of groundwater resources and requirement for effort to be put in to minimize the threats due to anthropogenic activities.



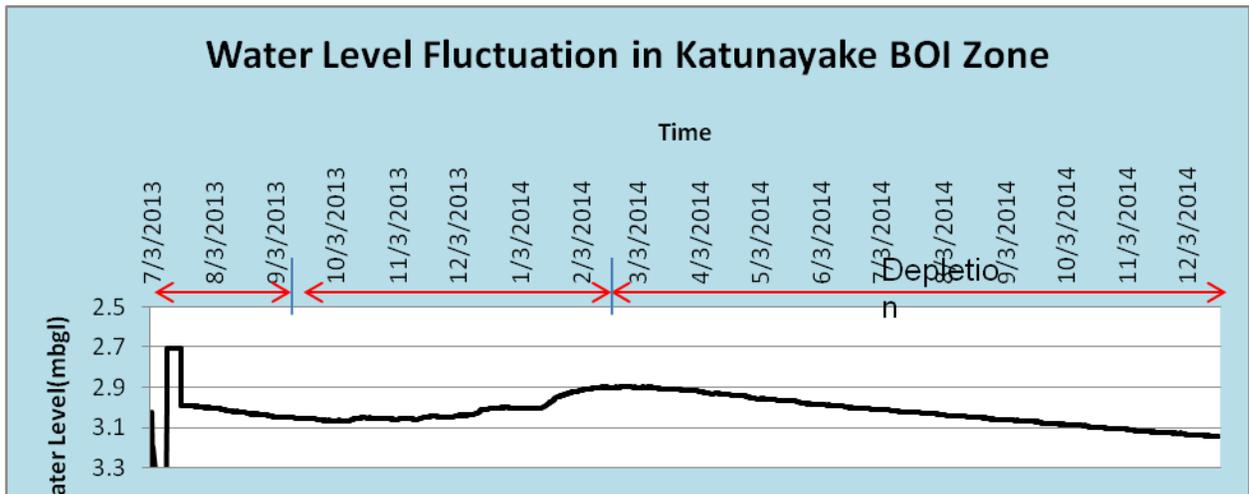
Fig. : The Awareness programs held at JaffnaKachcheri headed by GA, Jaffna in 2014

Continuous long term monitoring of the established networks

The continuous monitoring on the established networks was carried out in 2014 and scheduled for another two years period (2015-2016) under the extension phase of DSWRPP.

Gampaha Pilot Area:

The groundwater head levels of the established monitoring locations were monitored in dry and wet periods of the year 2014 and continuous head variation through automated data-loggers were also monitored at 04 locations to identify the impacts in high abstraction areas such as KEPZ(Katunayake Export Processing Zone), Kandana and Ekala area. The one of the head variation observed at the KEPZ location is shown below. During the assessed period, there was not large head variation despite the high abstractions may due to the fact of high rainfall recharge in year 2014 and high storage capacity of the sand aquifer of the area.



The objective of this logger installation was to assess the aquifer sensitivity, recharge or discharge behaviors of the aquifer and groundwater trend analysis for forecasting.

Jaffna Pilot Area:

During the year, the head level variation were monitored and groundwater quality in pre-monsoon and post-monsoon periods were also tested at the laboratories of WRB. In the locations where samples were collected in post and pre monsoon periods of the year 2014, the appearance of the water is very clear in almost all the wells. pH values were ranging from 6.0 to 9.0. Higher pH values were observed in the wells in coastal areas, especially in lagoonal deposits of southern coast in post monsoon whereas it is high in Point Pedro in pre monsoon of the same year. Lesser pH values were observed in south eastern coast(Iyakkachchi area) in both the periods but comparatively low in pre monsoon among both periods of the same year. Electrical Conductivity values were ranging from 100 µS/cm to 15000 µS/cm. High EC and salinity values were observed in the coastal area in which the wells constructed in lagoonal or Estuarine deposit and lesser values were from the very shallow wells in sand dune areas in south eastern coast in both the periods.

In general, it is indicated a high EC values in pre-monsoon period compared to the post-monsoon period of the region. This is resulted due to the seawater ingress along the fringe of lagoon boundaries during the pre-

monsoon period since the hydraulic head of fresh groundwater from landside is lowered due to the groundwater depletion in dry period.

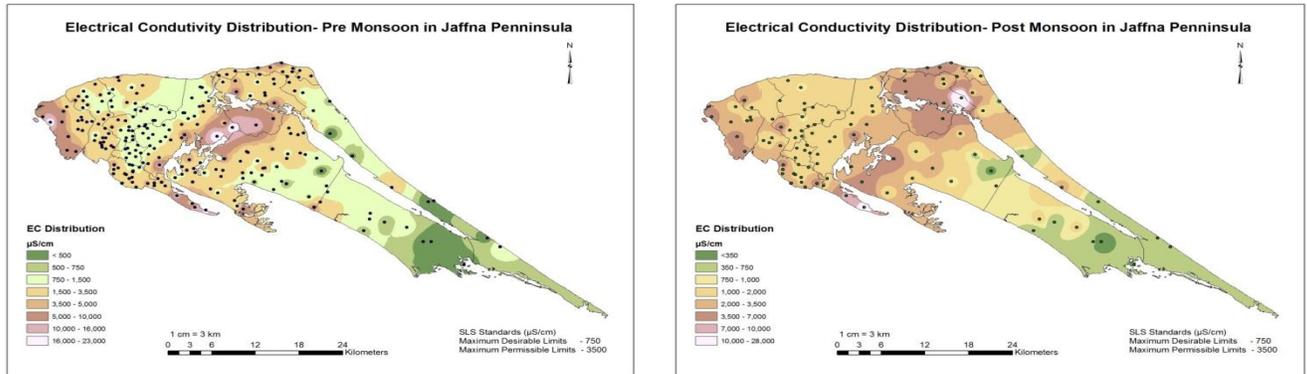


Fig: The EC variation in Pre-monsoon and post - monsoon period of the year in Jaffna Peninsula

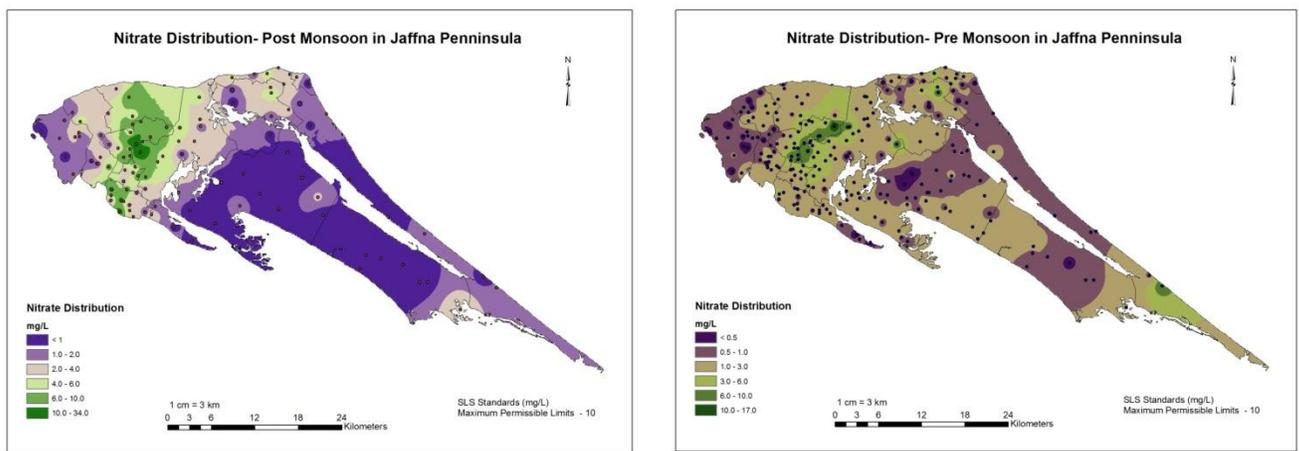


Fig: The NO₃ variation in Pre-monsoon and post-monsoon period of the year in Jaffna Peninsula

The NO₃ variation during the two period shows a complex behaviour and continuous monitoring is required for at least another few monsoon periods to establish a mechanism for the NO₃ variations. However from the two monsoon periods tested, it shows a slight higher NO₃ in premonsoon period compared to the post monsoon period in some areas. It is in the inverse behaviour at some other areas.

Puttalam and Kalpitiya Pilot Area:

The water quality and groundwater levels of the monitoring network locations were determined by field tests and laboratory testing in year 2014 during dry and wet period. The following map illustrates the nitrate distribution of the Kalpitiya area which is identified as one of the most groundwater quality problem in the area.

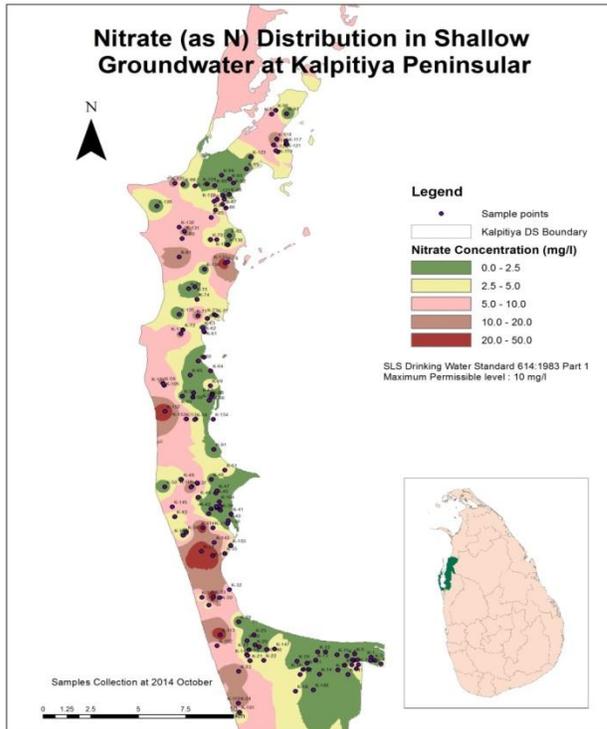


Fig: The NO₃ spatial variation in Pre-monsoon wet and dry periods at same monitoring locations Kalpitiya area

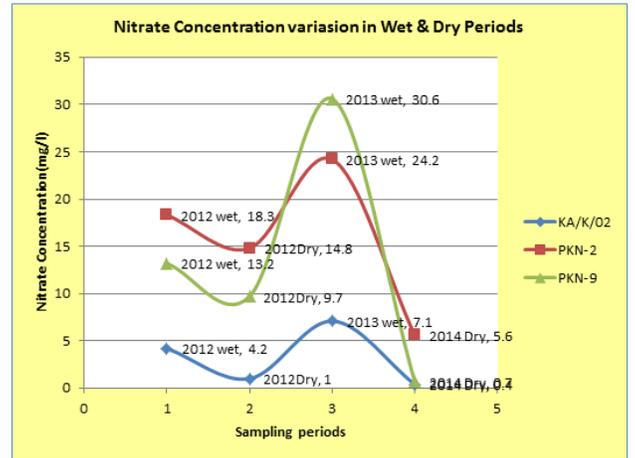


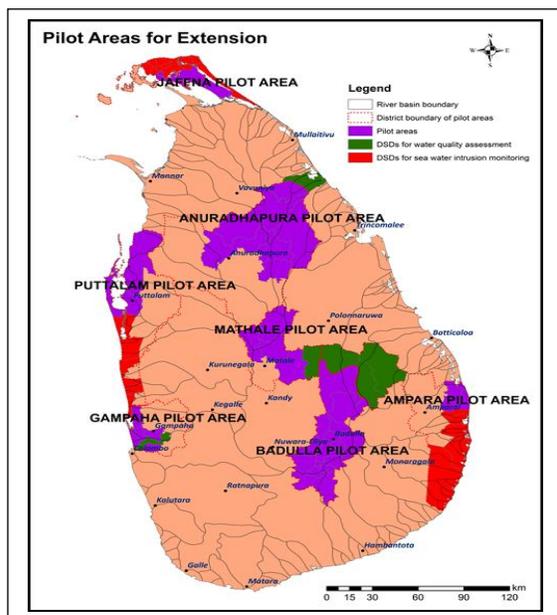
Fig: The NO₃ temporal variation in period of the year in

The NO₃ variation of the Kalpitiya area in wet dry period at some locations are shown in the figure which indicates strong fluctuations before after the rainfall periods of the year. This could possibly be explained with the present information as in the chart shown below



Phasell of the GWM Component, DSWRPP

The extension phase of this study component is scheduled to implement in 2015-2016 period. The additional areas have been included in the pilot areas as shown below (red & green zones). The project allocation is 315 Mn rupees and establishment of a modern Laboratory at North Central Province, procurement of new laboratory equipment and other hydrogeological equipment are to be obtained during this extension program which is an essential in the capacity buildup of WRB.



Objectives of the extension study

- Establishment of seawater monitoring surveillance lines
- Strengthening of monitoring network with additional areas identified
- Continuation of the long term water quality monitoring through the established monitoring networks

Minimize the impact on groundwater through grass root level awareness with continuous groundwater quality monitoring.

Summary: Tentative Estimate for Groundwater study component

1.) Continuation of the monitoring on Established Groundwater Monitoring network in the Pilot areas	7.072
2.) Establishment of new networks for the extended pilot areas	44.75
3.) Continuous monitoring on the integrated monitoring networks	4.40
4.) Chemical laboratory for North-Central provincial office	99.88
5.) Improvement of WRB workshop at Rathmalana	57.50

The estimated budget for the prioritized activities in the extension programme of DSWRPP2 (period: 2014-2016) **212.60 Mn**

6.) Pilot Study: Kalpitiya area for groundwater level and quality monitoring by automated system	33.30
7.) Equipment to be procured for the laboratory and field activities	58.85
8.) Training	10.00

The estimated budget for the additional activities in the extension programme of DSWRPP2 (if additional financing is provided) **102.15 Mn**

Total estimated budget for the Entire Study of Groundwater Component **314.75 Mn**

15. Drilling Division

In the year reviewed, 262 nos. tube wells construction, 142 nos. tube wells cleaning, 97 nos. Hand pump installation 177 nos. Hand pump repair 60 nos. Basin construction 07 nos. Iron remove plant installation were done.

16. Construction Work

In the year 2014, the following construction work has been done

- 16.1 Rehabilitation of office building Badulla.
- 16.2 Fined Aluminium Windows of Rathmalana work shop office building.
- 16.3 Construction of front roof at head office
- 16.4 Renovaton of front room head office (Chairman Room, Working Director Room, General Manager Room, Secretary Room)

17. Workshop, Ratmalana

17.1. General Workshop

- Completed the fabricating work of Lorry deck of drilling rig No 14
- Repaired the engine block of pump unit V/No/40/1844 and repaired the cooling system of air compressor No – 19
- Completed the machining and repairing of submersible pump of Moneragala hospital.
- Completed the filling, facing thread cutting of 04 nos – water swivel of drilling Rig No – 16
- Completed the fabricating work of a stand to air compressor an deck of lorry no 40/1847
- Completed the fabricating work of steel gates 02 nos, steel doors 02 nos & steel racks 02 nos for regional offices.
- Completed the machining work of P.V.C – 8’’ dia meter – 15 nos for Moragahakanda project.
- Completed the tinkering and painting of 14 nos of steel cabinets.
- For head office
- Completed the fabricating of fishing tools 04 nos for drilling site works.

And performed other all welding machining, fabricating and maintenance work related to drilling rings, air compressors, machinery / plants etc. also the job requested from the regional offices.

17.2. Vehicle repair Unit

- Carried out 32 nos of major and running repairs on board vehicles.

17.3. Vehicle Service Unit

- Carried out 60 nos of full services on board vehicles.

17.4. Heavy Machinery Repair Unit

- Carried out the major and running repairs on following heavy machineries
 - Drilling rig No – 15,14,16,03,05,13
 - Air Compressors No - 10,19,23,21

18. Internal Audit Division

11 Nos Audit Quarries and 02 Nos Audit reports have been issued by the Internal Audit Section within year 2014.

19. Finance

The total income for the year concerned was. Rs. 99.01 million. For the year 2014, Rs 87.0 million as recurrent and Rs. 37.79 million as capital was received from the treasury.

20. Administration

The total number of staff of the Water Resources Board in the year 2014 was 271nos. and 01no. of which was working on contract basis. In the year concerned, 23nos. employees were recruited for permanent service. In this year, 04 nos. employees were resigned and 11 employees were retired.

21. Human Resources Development

An action was taken to direct the employees to the training courses, in order to improve the productivity of the board four (04). employees including executive officers were directed to short training courses. 11 nos of executive officers participated to the Water Management Policies Vocational Training Course in India.

22. Welfare Facilities

In the year concerned, under the welfare and death donation scheme, donated Rs. 0.432 million to the welfare society of the Water Resources Board as to provide transport facilities in a death and also to provide welfare facilities and Rs. 85.97 million was supplied to reimburse the expenses incurred for health facilities of the employees of the Board and their family members.

23. Fleet of Transport

In the year concerned, the fleet of transport of the board was comprised with 51 nos. vehicles and out of which 47 nos. vehicles were in running condition. Those were mainly, cabs, cars, jeeps, Lorries, tractors and cranes.

24. Circuit Bungalow – Anuradhapura

The purpose of maintaining the circuit bungalow was to provide accommodation for the officers of the Water Resources Board and the Ministry of Irrigation and Water Resources Management in their official tours and spending their leisure time. Addition to that, an action was taken to provide accommodation for other government officers and general public.

25. Buddhist Society

The Buddhist Society of the Water Resources Board was initiated in 05th of May 1999. In the year 2014, action was taken to decorate the office premises commemorating the Vesak full moon day and Dansela and Dhamma sermon were organized for the Poson festival to commemorate the members who subjected to death after servicing in the board and presented group of employees to the Wesak Bethi Gee function at the Ministry of Irrigation & Water Resources Management

26. Acknowledgement

The board is in pleasure to thank and place on record of appreciation to the Minister of Irrigation and Water Resources Management and Deputy Minister of the Ministry of Irrigation and Water Resources Management, Secretary, officers and staff of the same Ministry, all the officers and consultants of the other government departments, board and corporations, foreign and private institutions. The active involvement and the loyal service rendered by the employees of the Water Resources Board are highly acknowledged.

Sgd. Asoka Perera
Chairman
Water Resources Board

16.03.2015

WATER RESOURCES BOARD
Statement of Financial Performance

For the year ended	Note No	Actual 2014 Rs.000'	Actual 2013 Rs.000'	Budget 2014 Rs.000'
Revenue from Operating Activities	01	94,099	85,848	103,400
Treasury Grants – Recurrent		87,000	83,100	87,000
Treasury Grants – Capital(Operational)	02	26,500	9,879	37,500
Other Income	03	<u>4,911</u>	<u>2,072</u>	<u>3,320</u>
Total Revenue		<u>212,510</u>	<u>180,899</u>	<u>231,220</u>
Administrative Costs	4.1	(140,106)	(124,772)	(116,495)
Supplies & Requisites	4.2	(28,808)	(45,636)	(31,200)
Contractual Services & Maintenance expenses	4.3	(16,110)	(14,771)	(12,813)
Other Expenses	4.4	(3,342)	(1,447)	(2,500)
Other Project Expenses	4.5	(7,998)	-	-
Treasury Grants – Capital (Research Studies)	4.6	(26,500)	(9,879)	(37,500)
Depreciation		(28,709)	(31,266)	(30,000)
Total Expenses		(251,573)	(227,771)	(230,508)
Surplus / (Deficit) from Operations		(39,063)	(46,872)	712
Tax		<u>(416)</u>	<u>(2,244)</u>	<u>-</u>
Surplus / (Deficit) for the period		<u>(39,479)</u>	<u>(49,116)</u>	<u>712</u>

WATER RESOURCES BOARD
Statement of Financial Position
As at 31st December,

	Note No.	2014 Rs.000'	2013 Rs.000'
ASSETS			
Current Assets			
Cash and cash equivalents	05	9,845	5,699
Trade and other receivables	06	22,249	20,321
Inventories	07	82,691	82,762
Prepayments	08	<u>54</u>	<u>174</u>
		<u>114,839</u>	<u>108,956</u>
Non - Current Assets			

Property, Plant & Equipment	09	<u>70,113</u>	<u>85,052</u>
		<u>70,113</u>	<u>85,052</u>
TOTAL ASSETS		<u>184,952</u>	<u>194,008</u>
LIABILITIES			
Current Liabilities			
Trade Creditors	10	5,155	3,157
Other Provisions & Payable	11	6,244	7,924
Deferred Income (Advances for Services)	12	<u>18,953</u>	<u>16,766</u>
		<u>30,352</u>	<u>27,847</u>
Non Current Liabilities			
Retirement Benefit Obligations	13	79,706	71,141
Staff Security Deposits	14	<u>19</u>	<u>18</u>
		<u>79,725</u>	<u>71,159</u>
TOTAL LIABILITIES		<u>110,077</u>	<u>99,006</u>
NET ASSESTS			
		<u>74,875</u>	<u>95,002</u>
NET ASSESTS / EQUITY			
CAPITAL & RESERVES			
Accumulated Fund	15	212,621	201,104
Other Grants	15	228,322	227,109
Accumulated Profit / (Deficit)	15	(368,631)	(335,774)
Revaluation Reserve	15	<u>2,563</u>	<u>2,563</u>
TOTAL NET ASSESTS / EQUITY		<u>74,875</u>	<u>95,002</u>

The Accounting Polices and the Notes from pages 05 to 18 form on Integral part of these financial statements.

I certify that the above Financial Statements are true and correct as per the records available of the Board.

Sgd.A. B. M. Chandrasiri
Assistant General Manager(Finance)

The Directors are responsible for the preparation & presentation of the Financial Statements. Approved and signed for on behalf of the Board.

Sgd. Bandula Munasinghe
CHAIRMAN

Sgd. Dr.G.S.A.Kodagoda
WORKING DIRECTOR

14th November,2014...
WATER RESOURCES BOARD

Statement of Changes in Net Assets / Equity
As at 31st DECEMBER

NOTE : 15

	Accumulated Fund Rs' 000	Other Grants Rs' 000	Revaluation Reserve Rs' 000	Accumulated Profit/Deficit Rs' 000	Total Rs'000
Balance as at 31st December 2012 B/F	179,801	237,341	3,989	(296,360)	124,771
Adjustments made for prior period events	-	-	-	9,702	9,702
Restated Balance	179,801	237,341	3,989	(286,658)	134,473
Change in Net Asset / Equity for 2013					
Surplus / (Deficit) for the period	-	-	-	(49,116)	(49,116)
Revaluation – Adjustments	-	-	(1,426)	-	(1,426)
Contributions / Additions for the Year	242	-	-	-	242
Contributions /from Other Grants	2,388	(10,232)	-	-	(7,844)
Add/Valuation of Sticks	18,673	-	-	-	18,673
Balance as 31st December 2013 C/F	201,104	227,109	2,563	(335,774)	95,002
Balance as 31st December 2013 B/F					
Balance as 31st December 2013 B/F	201,104	227,109	2,563	(335,774)	95,002
Adjustments made for prior period events	-	-	-	6,622	6,622
Restated Balance	201,104	227,109	2,563	(329,152)	101,624
Change in Net Assets / Equity for 2014					
Surplus / (Deficit) for the period	-	-	-	(39,479)	(39,479)
Revaluation – Adjustment	225	-	-	-	225
Contributions / Additions for the Year	27	1,213	-	-	1,240
Contributions / From Other Grants	11,265	-	-	-	11,265
Add / Valuation of Stocks	-	-	-	-	-
Balance as 31st December 2014	212,621	228,322	2,563	(368,631)	74,875

NOTE :- Details of other grants are as follows

OTHER GRANTS	Balance as 31.12.2014
	(Rs.000)
JICA	11,973
ADB & NWRA	1,025
Others	24,624
Japanese 2 KR Project	81,476
Amerasian Fund	1,771
DSWRPP Fund	<u>107,453</u>
Total	<u><u>228,322</u></u>

CASH FLOW STATEMENT

	2014	2013
	Rs'000	Rs'000
Cash flows from operating activities		
Surplus / [Deficit] for the year before Treasury Grants (Recurrent)	(126,479)	(132,216)
Add: Treasury Grants received (Recurrent)	<u>87,000</u>	<u>83,100</u>
Surplus / (Deficit) for the year	(39,479)	(49,116)
Add: Fund adjustments from projects	-	4,358
Add: Prior Year adjustments	<u>-</u>	<u>1,345</u>
	(39,479)	(43,413)
Non Cash Movements		
Depreciation	28,709	31,266
Increase in Provisions to Gratuity	14,971	10,655
Increase in payables	8,075	(5,536)
Decrease in other Current Assets	1,137	4,902
[Gain] / Losses on sale of Property plant & Equipments	(2,720)	-
Increase in receivables	<u>(1,928)</u>	<u>48,244</u>
	<u>2,416</u>	<u>43,703</u>
Net Cash flows from operating activities	8,765	(290)
Cash flows from Investing activities		
Proceeds from sale of Property Plant & Equipments	2,720	-
Purchase of Property Plant & Equipment	(12,256)	(838)
Interest income for security deposits	1	1
Payment of gratuity	<u>(6,375)</u>	<u>(6,933)</u>
Net Cash flows from Investing activities	(15,910)	(7,770)
Cash flows from financing activities		
Government Grant (Capital for Property Plant & Equipments)	<u>11,291</u>	<u>242</u>
Net Cash flows from financing activities	<u>11,291</u>	<u>242</u>
Net Increase / [decrease] in cash & cash Equivalents	4,146	(7,238)
Cash & cash equivalents at beginning of Period	<u>5,699</u>	<u>12,937</u>
Cash & cash equivalents at end of Period	<u><u>9,845</u></u>	<u><u>5,699</u></u>

14 NOTES TO THE CASH FLOW STATEMENT

01. Cash and cash equivalents consist of cash on hand and balances with banks. Cash and cash equivalents included in the Cash Flow Statement comprise the following statement of Financial Position amounts.

	<u>2014</u> Rs' 000	<u>2013</u> Rs'000
Cash on hand and balances with banks	2,143	2,451
Savings with National Saving Bank	<u>7,702</u>	<u>3,248</u>
	<u>9,845</u>	<u>5,699</u>

02. Cash flows from Treasury Grant (Capital) for the operational activities are included in the Cash Flows from operating activities.

WATER RESOURCES BOARD

NOTES TO THE FINANCIAL STATEMENTS & ACCOUNTING POLICIES

1. Corporate Information

The Water Resources Board is a statutory Board established in 1966 under the provisions of Act No. 29 of 1964.

Principal Activities and Nature of Operations

During the year, the principal activities of the Board Comprised of carryout Hydrogeological Surveys, Construction of Tube Wells, Chemical Analysis of Water Samples, preparation of Groundwater Maps etc.

Directors Responsibility Statement

The Board of Directors takes the responsibility for the preparation and presentation of these Financial statements as per the provisions of Sri Lanka public sector Accounting Standards.

Address of the Registered office and the Principal Place of the Activities of the Board

No. 02A, HectorKobbekaduwa Mawatha, Colombo 07

2.1. Statement of Compliance

WATER RESOURCES BOARD

The financial statements of the Water Resources Board are prepared in accordance with the Sri Lanka Public Sector Accounting Standards (SLPSAS) laid down by the Public Sector Accounting Standards Committee of the Institute of Chartered Accountants of Sri Lanka (CA Sri Lanka) with the participation of the Ministry of Financial & Planning.

General

The Comparative figures of the previous year have been charged and presented with these Financial Statements.

At present, SLPSAS No. 01, 02 & 03 are being followed. Standard of borrowing cost is not applicable to the Board at present.

2.2. Basis of Preparation

The financial statements are prepared on the Historical Cost Basis.

2.3. Functional and Presentation Currency

These Financial Statements are presented in Sri Lankan Rupees, Which is the Boards Functional Information has been rounded to the nearest thousands unless otherwise specifically indicated.

3. Assets and Basis of their Valuation

3.1 Property , Plant & Equipments

Property Plant and Equipments are recorded at cost less accumulated depreciation. The cost of Property , Plant & Equipment is the cost of purchase / revaluation or construction together with any incidental expenses thereon.

3.2 Depreciation

No depreciation is provided in the year of purchase or revaluation and full years depreciation is provided in the year of disposal.

NOTES TO THE FINANCIAL STATEMENTS & ACCOUNTING POLICIES

Depreciation is calculated so as to write off the Cost / Revaluation of Fixed Assets on a Straight – Line Basis over the expected useful lives of the Assets concerned. The principle annual rates used for this purpose are,

Motor Vehicles	25%
Machinery, Tools & Equipments	20%
Laboratory Equipments	20%
Scientific Equipments	20%
Geophysical Maps	20%
Computers	20%
Furniture, fitting & office Equi.	10%
Office Equipment, Computer & Laboratory Equi.Impro.	33 1/3%
Building Improvements	33 1/3%
Machinery & Vehicle Impro.	33 1/3%

3.3 Leased Assets

Payments made under operating leases are recognized in statement of Financial Performance on a Straight Line basis over the term of the lease.

3.4 Inventories

WATER RESOURCES BOARD

Inventories consist of vehicle spares, stores materials, machinery spares, fuel and other consumables. The cost of inventories are based on the first – in – first-out (FIFO) principle.

Inventory items identified as zero rated which was granted in previous years are measured at the net realizable value by the committee has been appointed.

Work in Progress

Work in progress balance of the 2 KR machinery, accounted as inventory stock under machinery spares from years identified as expense of maintenance of machinery due to completion of the major maintenance of machinery.

3.5 Receivables

- 1.1. Receivables are stated at the amounts they are estimated to realize.
- 1.2. Bad and Doubtful Debts.

The estimated losses to these debts are based on continuous review of all invoices and claims identified as bad and doubtful.

4.1 Accounts payables and Accrued expenses

Trade and other payables are stated at cost.

Deferred Income

Advances received for services to be rendered are shown as deferred income in the statement of Financial Position until recognize the income.

4.2 Provisions

Provisions are made for all obligations existing as at the date of statement of Financial Position.

NOTES TO THE FINANCIAL STATEMENTS & ACCOUNTING POLICIES

5. Deferred Liabilities

5.1 Retirement Gratuity

Provisions is made in the Financial Statements for retiring Gratuity, which may fall due for payment of Gratuity Act No.12 of 1983. It is provided one half of the basic salary and statutory allowances for the last month of the financial year for each year of continues service. This item is shown as Non Current Liabilities in the Statement of Financial Position.

6. Taxation

6.1 Tax Expense

Tax expense Comprises Current and any adjustment to tax payable in respect of previous years.

6.2 Value added Tax

Value added Tax is being paid on Cash Basis as the approval granted by the Commissioner of Inland Revenue.

7. **Cash Flow Statement**The Cash Flow statement is prepared using the indirect method as stipulated in SLPSAS 02 Cash Flow Statement

NOTES TO THE FINANCIAL STATEMENT.

REVENUE FROM OPERATING ACTIVITIES

NOTE NO: 01

HYDRO: INVESTIGATIONS / EXPLORATION

	Actual 2014 Rs'000	Actual 2013 Rs'000	Budget 2014 Rs'000
Hydrogeological Survey	15,045	10,086	7,000
Tube Well Construction	46,931	55,078	50,000
Hand Pump Installation	5,785	1,263	6,000
Pumping Tests	12,058	3,768	6,400
Tube Well Cleaning	3,592	634	500
Water Sample Analysis	3,366	3,614	3,000

Sub total

86,777

74,443

72,900

GROUNDWATER MONTORING

Dam Safety Water Resources Planning Project	670	10,220	25,000
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Sub total

670

10,220

25,000

GROUNDWATER DEVELOPMENT

WATER RESOURCES BOARD

Ground Water Development	-	685	5,000
Wind Mills	-	500	500
Drought Relief Tube Wells Rehabilitation Project	<u>6,652</u>	<u>-</u>	<u>-</u>
Sub total	<u>6,652</u>	<u>1,185</u>	<u>5,500</u>
Grand Total	<u>94,099</u>	<u>85,848</u>	<u>103,400</u>

NOTE NO: 02

**TREASURY GRANT – CAPITAL
(RESEARCH STUDIES - OPERATIONAL)**

Hydrogeological coastal study in Colombo to Negombo	3,125	1,925	5,000
Study in water quality changes in aquifer system – A’pura	4,735	3,694	7,000
Rehabilitation & Improvement Income	973	950	1,000
Hydrogeological Study in limestones Aquifers in Manner	3,933	1,051	5,000
Jaffna Ground water Monitoring	2,989	1,467	6,000
Hydrogeological Study in Vavunia and Kilinochchi	2,496	589	5,500
Study on the direct and indirect impacts of climate Changes	1,178	203	2,000
Artificial Recharge Project (Phase I Puttlam)	1,250	-	3,000
Water Quality Studies in CKDU Project	5,821	-	3,000
Total	<u>26,500</u>	<u>9,879</u>	<u>37,500</u>

NOTE NO: 03

OTHER INCOME

Circuit Bungalow Reservation	241	186	120
Fines & Surcharges	127	105	100
Sundry Income	770	659	200
Dayata Kirula	267	223	400
Disposal Income	2720	-	1,500
Interests on Loans & Bank Deposits	<u>786</u>	<u>899</u>	<u>1,000</u>
Total	<u>4,911</u>	<u>2,072</u>	<u>3,320</u>

NOTES TO THE FINANCIAL STATEMENTS CONTD.

NOTE NO: 4.1 ADMINISTRATIVE COSTS

	Actual 2014 Rs’000	Actual 2013 Rs’000	Budget 2014 Rs’000
Salaries & Wages	101,653	91,601	86,000
Over time & Holiday Pay	6,459	6,359	7,000
Employees Provident Fund -12%	8,571	6,625	6,000
Employees Trust Fund -12%	2,143	1,656	1,550
Director’s Fees	714	746	500
Other Allowances	5	20	20
Gratuity	14,971	10,224	8,000
Traveling – Local	4,853	6,603	6,500
Traveling – Overseas	43	101	75
Welfare & Sports facilities	87	97	150
Medical Scheme	443	420	450
Entertainment	62	243	200

Vacation Leave Encashment	<u>102</u>	<u>77</u>	<u>50</u>
<i>Total</i>	<u>140,106</u>	<u>124,772</u>	<u>116,495</u>

NOTE NO: 4.2 SUPPLIES REQUISITES

Fuel & Lubricants	20,648	23,910	21,000
Drilling Works Consumables	7,156	16,958	8,000
Laboratory Consumable & Others	440	4,197	1,800
Other Consumable	564	571	400
<i>Total</i>	<u>28,808</u>	<u>45,636</u>	<u>31,200</u>

NOTE NO: 4.3 CONTRACTUAL SERVICES & MAINTENANCE EXPENSES

Postage & Telecommunication	1,088	1,134	1,200
Electricity	2,205	2,249	1,800
Rent, Rates, & Taxes	820	1,168	900
Cash in transit Insurance	11	3	3
Audit Fees	292	150	150
Printing & Publications	130	234	200
Workshop & Seminars	135	1,317	50
Water Bills	127	151	150
Consultancy Charges	96	55	60
Sundry Expenses	339	395	300
Maintenance of Motor Vehicles	3,214	3,629	4,800
Maintenance of Machinery	5,105	2,623	1,200
Maintenance of Office Equipments	1,235	1,261	1,000
Maintenance of Buildings	<u>1,313</u>	<u>402</u>	<u>1,000</u>
<i>Total</i>	<u>16,110</u>	<u>14,771</u>	<u>12,813</u>

NOTE NO: 4.4 OTHER OPERATING EXPENSES

Stationery & Office Requisites	430	264	400
Uniforms	140	4	200
Periodicals & Newspapers	77	109	100
Publicity	99	293	200
Bank charges	142	178	150
Medical Test Charges	55	38	30

Legal Expenses	18	27	15
Stamp Duty	10	7	5
Vehicle Service – Rathmalana	466	133	200
Hiring Charges	11	45	-
Training Centre Expenditure (A'pura)	118	126	800
Dayata Kirula Expenses	267	223	400
W.H.T Written off	1,462	-	-
Bad Debts	47	-	-
Total	<u>3,342</u>	<u>1,447</u>	<u>2,500</u>

NOTES TO THE FINANCIAL STATEMENTS CONTD.

Actual 2014 Rs'000	Actual 2013 Rs'000	Budget 2014 Rs'000
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NOTE NO: 4.5 OTER PROJECT EXPENSES**HYDROGEOLOGICAL COASTAL STUDY IN COLOMBO TO NEGOMBO**

Overtime & Holiday Pay	55		
Traveling	57		
Stationery & Office Requisites	1		
Fuel & Lubrications	253		
Maint. Of Buildings	77		
Drilling Work Consumables	212		
Office Equipment Maint. & Repairs	3		
Rent. Rates & Taxes	7		
Entertainment	5	-	-
Sub Total	<u>670</u>	<u>-</u>	<u>-</u>

DROUGHT RELIEF TUBE WELLS REHABILITATION PROJECT

Overtime & Holiday Pay	681	-	
Traveling	732	-	
Stationery & Office Requisites	2	-	
Fuel & Lubrications	2,469	-	
Drilling Work Consumables	3,088	-	
Rent. Rates & Taxes	42	-	
Other Consumables	67	-	
Maintenance of Motor Vehicles	225	-	
Maint. Of Machinery	14	-	
Sundry Expenses	1	-	
Postage & Telecommunication	2	-	
Labour Charge	4	-	
Water Bills	1	-	
Sub Total	<u>7,328</u>	<u>-</u>	<u>-</u>
Grand Total	<u>7,998</u>		

Actual 2014 Rs'000	Actual 2013 Rs'000	Budget 2014 Rs'000
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NOTE NO: 4.6 TREASURY GRANTS – CAPITAL (Research Studies)

HYDROGEOLOGICAL COASTAL STUDY IN COLOMBO TO NEGOMBO

Salaries & Wages	90	119	
Overtime & Holiday Pay	314	201	
Traveling	310	270	
Stationery & Office Requisites	2	19	
Fuel & Lubrications	867	711	
Printing & Publication	-	29	
Ground Water Other	13	24	
Drilling Work Consumables	722	103	-
Maintenance of Motor Vehicles	408	95	
Maint. Of Machinery	32	-	
Maint. Of Lab. Equipments	222	187	
Maint. Of Buildings	-	2	
Postage & Telecommunication	11	19	
Sundry Expenditure	2	2	
Rent , Rates & Taxes	132	144	
<i>Sub Total</i>	<u>3,125</u>	<u>1,925</u>	<u>5,000</u>

NOTES TO THE FINANCIAL STATEMENTS CONTD.

Actual 2014 Rs'000	Actual 2013 Rs'000	Budget 2014 Rs'000
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NOTE NO: 4.6 TREASURY GRANTS -CAPITAL (Research Studies)

Overtime & Holiday Pay	312	361	
Traveling	321	271	
Fuel & Lubrications	1,982	1,086	
Maint. Of Lab. Equipments	-	94	
Maintenance of Motor Vehicles	579	347	
Drilling Work Consumables	961	1,100	
Ground Water Other	2	1	
Maint. Of Machinery	121	1	
Office Equipment Maint. & Repairs	59	45	
Entertainment	127	104	-
Training Centre Expenditure (A'pura)	199	241	-
Electricity	-	1	-
Scholarships & Seminars	-	42	-
Salaries & Wages	1	-	-
Sundry Expenditure	2	-	-
Publicity	33	-	-
Printing & Publication	17	-	-
Maint. Of Buildings	19	-	-
<i>Sub Total</i>	<u>4,735</u>	<u>3,694</u>	<u>7,000</u>

HYDROGEOLOGICAL STUDY IN LIMESTONES AQUIFERS IN MANNAR DISTRICT

Overtime & Holiday Pay	226	132	
Traveling	261	187	
Stationery & Office Requisites	2	-	
Fuel & Lubrications	726	372	
Drilling Work Consumables	1,955	96	
Ground Water Other	16	18	
Rent , Rates & Taxes	15	30	
Maint. Of Lab. Equipments	11	-	
Maintenance of Motor Vehicles	555	180	
Maint. Of Machinery	125	-	
Maint. Of Buildings	19	-	-
Sundry Expenditure	2	1	
Office Equipment Maint. & Repairs	20	20	
Publicity	-	15	-
<i>Sub Total</i>	<u>3,933</u>	<u>1,051</u>	<u>5,000</u>

NOTES TO THE FINANCIAL STATEMENTS CONTD.

	Actual 2014 Rs'000	Actual 2013 Rs'000	Budget 2014 Rs'000
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NOTE NO: 4.6 TREASURY GRANTS -CAPITAL (Research Studies)**JAFFNA GROUND WATER MONTORING**

Overtime & Holiday Pay	87	173	-
Traveling	109	192	-
Stationery & Office Requisites	-	8	-
Fuel & Lubrications	723	588	-
Drilling Work Consumable	1,653	26	-
Ground Water Other	-	10	-
Rent. Rates & Taxes	121	137	-
Salaries & Wages	33	63	-
Maint. Of Motor Vehicles	164	226	-
Maint. Of Machinery	-	1	-
Maint. Of Buildings	-	1	-
Maint. Of Lab. Equipments	99	27	-
Postage & Telecommunication	-	2	-
Electricity	-	9	-
Sundry Expenditure	-	<u>4</u>	<u>-</u>
<i>Sub Total</i>	<u>2,989</u>	<u>1,467</u>	<u>6,000</u>

HYDROGEOLOGICAL STUDY IN VAVUNIA & KILINCHCHI

Drilling Work Consumable	1,052	39	-
Overtime & Holiday Pay	120	110	-
Traveling	118	102	-
Fuel & Lubrications	760	338	-
Ground Water Other	9	-	-
Maint. Of Lab. Equipments	375	-	-
Maintenance of Motor Vehicles	62	-	-
	<u>2,496</u>	<u>589</u>	<u>5,500</u>
Rehabilitation & Improvement	<u>973</u>	<u>950</u>	<u>1,000</u>

THE STUDY ON THE DIRECT & INDIRECT IMPACTS OF CLIMATE CHANGES

Overtime & Holiday Pay	32	36	-
Traveling	65	51	-
Fuel & Lubrications	608	116	-
Drilling Work Consumable	341	-	-
Maintenance of Motor Vehicles	132	-	-
	<i>Sub Total</i>	<u>203</u>	<u>2,000</u>
	Actual	Actual	Budget
	2014	2013	2014
	Rs'000	Rs'000	Rs'000

NOTE NO: 4.6 TREASURY GRANTS -CAPITAL (Research Studies)**ARTIFICIAL RECHARGE PROJECT (PHASE 1 PUTTALAM)**

Overtime & Holiday Pay	93	-	-
Traveling	104	-	-
Stationery & Office Requisites	2	-	-
Fuel & Lubrications	355	-	-
Drilling Work Consumables	541	-	-
Ground Water Other	9	-	-
Maint. Of Lab. Equipments	12	-	-
Maint. Of Machinery	43	-	-
Office Equipment Maint. & Repairs	14	-	-
Maintenance of Motor Vehicles	77	-	-
	<i>Sub Total</i>	<u>1,250</u>	<u>3,000</u>

WATER QUALITY STUDIES IN CKDU PROJECT

Salaries & Wages	22	-	-
Overtime & Holiday Pay	645	-	-
Maintenance of Motor Vehicles	118	-	-
Maint. Of Machinery	48	-	-
Rent , Rates & Taxes	126	-	-
Traveling	900	-	-
Stationery & Office Requisites	2	-	-
Fuel & Lubrications	2,514	-	-
Drilling Work Consumables	1,368	-	-
Ground Water Other	28	-	-
Sundry Expenditure	6	-	-
Maint. Of Buildings	41	-	-
Legal Expenses	3	-	-
<i>Sub Total</i>	5,821	-	3,000
GRAND TOTAL	26,500	9,879	37,500

NOTE NO: 5

CASH & CASH EQUIVALENTS

(1) Bank of Ceylon York Street Branch (0002026295)	87	46
(2) Bank of Ceylon Torrington Branch (0002322267)	586	1,860
(3) Bank of Ceylon Torrington Branch (0002322268)	1,220	3
(4) Bank of Ceylon Torrington Branch (0005342839)	250	542
(5) National Savings Bank – Bammbalapitiya (100230211818)	7,688	3,235
(6) National Savings Bank – Borella (1-0061-03-31236)	12	11
(7) National Savings Bank – Borella (1-0061-03-31287)	<u>2</u>	<u>2</u>
TOTAL	<u>9,845</u>	<u>5,699</u>

NOTES TO THE FINANCIAL STATEMENTS CONTD.

NOTE NO: 6

TRADE & OTHER RECEIVABLES

STAFF

	Actual 2014 Rs'000	Actual 2013 Rs'000
(1) Book Advance	-	2
(2) Distress Loan	13,228	12,291
(3) Festival Advance	217	227
(4) Traveling Advance	13	5
(5) Cycle Loan	39	34
(6) Staff Debtors	138	182
(7) Special Advance	-	50
(8) Treasury Grant Receivable	-	10
Sub Total	<u>13,635</u>	<u>12,801</u>

OTHERS

(9) Trade	9,580	5,933
(10) Deposits	56	56
(11) Advances to suppliers	4	64
(12) Retention Money	-	444
(13) With Holding Tax Receivable	-	1,462
(14) Bank Guarantee	-	257

Sub Total 9,640 8,216

TOTAL RECEIVABLES 23,275 21,017

(15) Less : V.A.T. Payable (1,026) (696)

TOTAL 22,249 20,321

NOTE NO: 7**INVENTORIES****MATERIALS & SPARES**

Vehicle Spares	1,036	1,134
Fuel & Lubricants	457	411
Stores Materials	18,083	14,509
Building Maintenance	74	127
Stationery	196	329
Machinery Spares (with 2 KR Spares)	60,211	64,272
Laboratory Maintenance	2,634	1,980

TOTAL 82,691 82,762

NOTE NO: 8**PRE-PAYMENTS**

Cash In Transits	8	8
Newspapers & Periodicals	14	14
Maintenance of Office Equipment	-	21
Maintenance of Motor Vehicle	32	128
Postage & Telecommunication	-	3

TOTAL 54 174

NOTES TO THE FINANCIAL STATEMENTS CONTD.**PROPERTY, PLANT & EQUIPMENT****NOTE NO: 09**

Cost / Valuation	Balance as at 01.01.2014 Rs'000	Additions for the year Rs'000	Disposal Adjustments Rs'000	Balance as at 31.12.2014 Rs'000
Land	884	-	-	884
Motor Vehicles	76,403	225	(980)	75,648
Machinery, Tools & Equipments	232,547	2,020	-	234,567
Laboratory Equipments	75,081	1,379	-	76,460
Furniture fittings & office Equipments	15,081	488	-	15,569
Computers & Accessories	9,741	301	-	10,042
Scientific Equipments	31,507	9,355	-	40,862
Geological Maps	2,186	2	-	2,188
Building Improvements	702	-	(702)	-
Machinery & Vehicles Improvements	3,932	-	(2,846)	1,086
Improvement of Computers	2,768	-	(2,768)	-
TOTAL	<u>450,832</u>	<u>13,770</u>	<u>(7,296)</u>	<u>457,306</u>

Depreciation

	Balance as at 01.01.2014 <u>Rs'000</u>	Charges for the year <u>Rs'000</u>	Disposal / Adjustments <u>Rs'000</u>	Balance as at 31.12.2014 <u>Rs'000</u>
Motor Vehicles	70,298	3,529	(980)	72,847
Machinery, Tools & Equipments	227,018	253	-	227,271
Laboratory Equipments	37,942	10,427	-	48,369
Furniture fittings & Office Equipments	9,299	805	-	10,104
Computers & Accessories	6,411	1,167	-	7,578
Scientific Equipment	14,000	5,775	-	19,775
Geological Maps	<u>812</u>	<u>437</u>	<u>-</u>	<u>1,249</u>
TOTAL	<u>365,780</u>	<u>22,393</u>	<u>(980)</u>	<u>387,193</u>
NET BOOK VALUE	<u>85,052</u>			<u>70,113</u>

Total Depreciation is made as follows

From Accumulated Depreciation	<u>22,393</u>
From Improvements (1,464+4,652+2,817)	<u>6,316</u>
	<u>28,709</u>

NOTES TO THE PROPERTY PLANT & EQUIPMENT

NOTE NO: 09

01. Land of Korakahawewa Training Center (Hec. 2.166) has leased agreement on paying with annual rental basis
02. Details of the Land & Building which are utilizing of the Board without having legal ownership as at 31.12.2013 are as follows.

LAND

Head Office
Work Shop at Rathmalana
Circuit Bungalow at Hambanthota
Regional Office at Hambanthota
Work site at Vauniya

BUILDINGS (Appox)

8477 Sq.ft
32960 Sq.ft
3038 Sq.ft
1474 Sq.ft
1082 Sq.ft

03. Nos of Motor vehicles (Double Cabs) granted from General Treasury in year 2012 have not been valued. (Vehicle Nos. PE-0623, PD-5851, PD-5856)
04. 14 Nos of Motor Vehicles have not been accounted due to unavailability of legal ownership (Please see page No. 27 for Schedule of Motor Vehicles)

NOTES TO THE FINANCIAL STATEMENTS CONTD.

	Actual 2014 Rs'000	Actual 2013 Rs'000
NOTE NO: 10		
TRADE CREDITORS		
NAME		
01. Sri Lanka Customs	-	619
02. Provincial Sec. Nuwaragampalatha	422	422
03. B. Munasinghe	-	42
04. Central Industries PLC	-	2,074
05. A.M.Nijam	322	-
06. Aiken (Pvt) ltd	1,126	-
07. Augustine Motors (Pvt) Ltd	9	-
08. Ceat Kelani International Tyres (Pvt) ltd	48	-
09. Central Industries PLC	455	-
10. Dhanusha Marine Lanka (Pvt) Ltd	390	-
11. Sri Lanka State Trading Gen.Corporation Ltd	86	-
12. United Motors Lanka Plc	12	-
13. National Water Supply & Drainage Board	2,124	-
14. N. Technology	76	-
15. Others	<u>85</u>	<u>-</u>
TOTAL	<u>5,155</u>	<u>3,157</u>

NOTE NO: 11

OTHER PROVISIONS & PAYABLES

(1) Staff		
1:1 Staff Creditors	145	29
1:2 Unclaimed Wages	-	9
1:3 DSWRPP Project	30	-
SUB TOTAL(1:1 – 1:3)	175	38
(2) Provision for Audit Fees	357	534
(3) Retention Payable	45	-
(4) E.P.F. 10%	(13)	(21)
(5) Accrued Expenses	6,171	7,296
(6) Bid Bond & Refundable Deposits	38	514
SUB TOTAL(2 – 6)	6,598	8,323
(7) Less: V.A.T Cash	(75)	(215)
(8) Less: V.A.T Receivable	<u>(454)</u>	<u>(222)</u>
	<u>6,244</u>	<u>7,924</u>

NOTE NO: 12**DEFERRED INCOME**

Service Advance (Pl.se Page No 25 & 26 for details)

18,953**16,766****NOTE NO: 13****RETIREMENT BENEFIT OBLIGATION**

The Amounts recognized in the Statement of Financial Position are as follows

At Beginning of the year	71,141	67,419
Less:- Transfer – JV-119	(31)	-
Charge / Credit for the year	14,971	10,655

Contribution Paid	<u>(6,375)</u>	<u>(6,933)</u>
At end of the year	<u>79,706</u>	<u>71,141</u>

NOTE NO: 14**SECURITY DEPOSITS**

		Deposit		
		Rs		
(1)	Mr. W.P.S. Gunethilake - Cashier	3,500	12	11
(2)	Mr. K.A. Wimal - Store Keeper	500	2	2
(3)	Mr. N. Wicramasinghe - Canteen	5,000	<u>5</u>	<u>5</u>
TOTAL		<u>9,000</u>	<u>19</u>	<u>18</u>



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கணக்காய்வாளர் தலைமை அகிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය } LP/G/WRB/1/15/26
 எனது இல. }
 My No. }

ඔබේ අංකය }
 உமது இல. }
 Your No. }

දිනය } 19 October 2015
 திகதி }
 Date }

The Chairman,
 Water Resources Board

Report of the Auditor General on the Financial Statements of the Water Resources Board for the year ended 31 December 2014 in terms of Section 14(2)(c) of the Finance Act, No. 38 of 1971.

The audit of financial statements of the Water Resources Board for the year ended 31 December 2014 comprising the statement of financial position as at 31 December 2014 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No.38 of 1971 and Section 17(2) of the Water Resources Board Act, No.29 of 1964 as amended by Act, No 42 of 1999. 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 25 June 2015.

1.2 Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

1.3 Auditor's responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Standards of Supreme Audit Institutions (ISSAI 1000- 1810). Those standards require that I comply with ethical requirements and plan and perform the audit to obtain



reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgments, including the assessment of the risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Board's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. Subsections (3) and (4) of 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.

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I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

1:4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2:2 of this report.

2. Financial Statements

2:1 Opinion

In my opinion, except for the effects of the matters described in paragraph 2:2 of this report, the financial statements give a true and fair view of the financial position of the Water Resources Board as at 31 December 2014 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

2.2 Comments on Financial Statements

2.2.1 Accounting Policies

Although the administrative expenses of Rs.11,938,643 such as maintenance of motor vehicles, payment of telephone bills and insurance payments etc. had been absorbed to the research studies, the accounting policy in respect of absorption of such expenditure had not



- (i) The Divisional Secretary of Kalpitiya had paid an advance of Rs.1,751,358 to the Board in 2006 for the construction of a drinking water well under "Karabe" drinking water Project. Due to water of the well is being salty, it was promised to refund the total amount. However, out of that a sum of Rs.1,056,720 had been shown in the financial statements without being settled as promised. It was also observed that the disciplinary action against the responsible officers for negligence of their duties had not been taken.
- (ii) A letter sent to the Provincial Secretary -Puttalam for confirming the payable of Rs. 113,008 had been returned due to error in the address. Therefore, reliability of the payable amounting to Rs.113,008 is questionable in audit.
- (iii) In view of non-received of twenty four confirmations out of 35 letters sent for confirmations, the recoverability of advances amounting to Rs.16,840,458 shown in the financial statements is also questionable in audit.

2.2.5 Lack of Evidence for Audit

The confirmations relating to balances of trade receivable and service advance payable amounting to Rs.9,536,434 and Rs.15,060,132 respectively had not been made available for audit. Therefore, the reliability and accuracy of those balances could not be ascertained in audit.

2.2.6 Non – compliance with Laws, Rules Regulations etc.

The following non – compliance were observed in audit.

Reference to Laws, Rules and Regulations.	Non - compliance
-----	-----
(a) Water Recourses Board Act, No. 29 of 1964 and Section 14 (1) and 14(2) of amended Act, No 42 of 1999	Even though the Advisory Committee should advice the Board on any or all of the matters set out in Section 12 of the Act, the Committee to the Board had not met during



4. Operating Review

4.1 Performance

According to the annual estimates, progress reports and other information furnished by the Board, the physical performance of the construction works and research studies carried out by the Board during the year under review is given below.

<u>Item / Activity</u>	<u>Estimated units</u>	<u>Completed Units</u>	<u>Variation</u>
Hydrogeological survey	200	322	122
Construction of tube wells	100	157	57
Installation of hand pumps	50	68	18
Conducting the pumping tests	80	87	07
Cleaning of tube wells	10	36	26
Analysis of water samples	1000	834	166

Special Project Implemented under the Consolidated Fund

* Water Quality Study in Anuradhapura District.

<u>Collection and analysis of water samples</u>	500	261	239
Carry out geophysical survey	30	20	10
Test bore hole drilling	30	22	08
Procurement pump test equipment	01	-	01
Pumping test leveling & reporting	20	04	16

* Conducting of Training Programmes on Awareness Creation about Water Born Health Hazards and Conducting Water Clinics.

Conducting 3 day training programmes	10	07	03
Conducting water clinics	06	08	02
Distribution of low cost fluoride filters	150	163	13
Procurement of water filters	25	62	37
Installation of Reverse Osmosis (RO) plants.	08	41	33



* Hydrogeological Study on the Coastal Sandy Aquifer Extending from Colombo to Negambo

Geophysical investigation	50	28	22
Construction of shallow bore holes	25	07	18
Pumping tests	20	26	06
Leveling of wells	100	78	22
Collection & analysis of water samples	200	239	39

* Development of Ground Water Monitoring Network in Jaffna Peninsula.

Hydrogeological survey	40	31	09
Construction of test bore holes	40	04	36
Water analysis of samples	320	144	176
Pumping tests	50	05	45
Ground water monitoring	320	222	98

* Hydrogeological Study in Limestones Aquifers in Mannar District.

Carry out geophysical investigations	30	55	25
Construction of test bore holes	30	10	20
Pumping test & leveling of wells	10	60	50
Water analysis of samples	200	251	51

* Hydrogeological Coastal Study in Vavuniya and Killinochchi.

Carryout geophysical survey	20	11	09
Construction of test bore holes	20	06	14
Water analysis of samples	50	19	31



* The Study on the Direct and Indirect Impacts of the Climate Changes on the Coastal Aquifer System of Sri Lanka

Construction of shallow piezometers	30	03	27
Water level monitoring & analysis of water samples	50	40	10

* Water Quality Study in CKDU prevailing areas of Ampara, Kurunegala, Trincomalee, Hambanthota, Polonnaruwa, Badulla & Monaragala Districts.

Geophysical and geological survey and test bore hole drilling	30	54	24
Collection and analysis of water samples for chemical and heavy metals	300	75	225
Procurement hand pumps	30	20	10
Installation of hand pumps	30	14	16
Conduct awareness programmes	01	-	01

The following observations are made in this connection.

- (i) Even though the income of Rs.6,652,000 had been reported during the year under review by "Drought Relief Tube well Rehabilitation Project" this activity had not been estimated.
- (ii) Although sums of Rs. 5,000,000 and Rs.500,000 had been estimated for the year under review in respect of ground water development and wind mills respectively, no income had been earned.
- (iii) The Board had estimated to purchase a pump test equipment at a cost of Rs.5 million and to conduct an awareness Programme. Nevertheless, no implementation had been done.
- (iv) Board had incurred an expenditure of Rs.9,518,000 on hiring charges, bad debts and drought relief tube wells rehabilitation project etc without the provisions in the budgetary estimates.



4.2 Weaknesses in Implementation of Research Studies

The Board had commenced 9 research studies during the years from 2010 to 2014 in order to examine the quality of water and its impact to the general public and out of total provision amounting to Rs.44,000,000 made for the year 2014 for this purposes, a sum of Rs.26,500,000 or 40 per cent only had been utilized during the year under review to carry out these research studies . Details are shown below.

Name of Research Study	Estimated Cost	Date of Commencement	Due date of Completion	Estimated Expenditure for the year	Actual Expenditure during the year	Accumulated Expenditure up to 31 Dec 2014
(i) Identification of zones with hazardous minerals containing water which leads to cause health problems to people in Anuradhapura District.	23,632,000	2010 June	31.12.2011	8,000,000	4,735,000	15,880,990
(ii) Hydrogeological study on the coastal sandy aquifer extending from Colombo to Negambo.	127,000,000	2010 July	31.12.2012	7,200,000	3,125,000	21,523,539
(iii) Ground water assessment and development of ground water monitoring network for Jaffna peninsula.	36,500,000	2012 January	31.12.2014	8,000,000	2,989,000	5,143,000
(iv) Hydrogeological study in the limestones aquifers in Mannar District - water sector	28,800,000	2012 January	31.12.2013	-	-	4,462,000
(v) Hydrogeological study in the limestones aquifers in Mannar District - Drought mitigation	9,000,000	2014 January	31.12.2014	9,000,000	3,933,000	3,933,000
(vi) Hydrogeological study in Vauniya and Kilinochchi Districts	77,950,000	2013 January	31.12.2015	7,200,000	2,496,000	3,085,000
(vii) The study on the possible direct and indirect impacts of climate changes on coastal aquifer system of Sri Lanka.	16,000,000	2013 January	31.12.2015	1,500,000	1,178,000	1,381,000
(viii) Water quality study in CKD prevailing areas of Ampara, Kurunegala, Trincomalee, Hambanthota, Polonnaruwa and Badulla Districts.	12,000,000	2014 January	31.12.2015	6,000,000	5,821,000	5,821,000
(ix) Identification of suitable areas for ground water recharge in Sri Lanka I - Puttalam District	6,000,000	2014 January	31.12.2015	3,000,000	1,250,000	1,250,000



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 කොමන්ඩර් ජනරාල් ආචාර්ය ජනරාල්
 Auditor General's Department



The following deficiencies were observed in this connection.

(a) Common Lapses in the Implementation of Research Studies

- (i) Although a full time research officer should be appointed to a research studies for its successful completion, a full time research officer had not been attached to any research study implemented during the year under review by the Board. The General Manager of the Board had been nominated as research officer for all studies. Therefore, it was observed in audit that these studies could not be completed within the scheduled time period.
- (ii) It was observed that these research studies had not been supervised by a competent and experienced research officer.
- (iii) The names of the officers those who were attached to the research study and number of allocated man days for each officer had not been included in the research proposals.
- (iv) The accumulated expenditure and physical progress of each Project had not been shown in the event of extending the Project periods.
- (v) Detailed expenditure of each activity of the research had not been included in the research proposals.
- (vi) Although according to the proposals the responsibility of each research had been assigned to the General Manager of the Board, it was observed that sufficient monitoring and successful completion of this kind of research studies is impossible to General Manager with the administration and other duties assigned to him.



(b) **Hydrogeological Study on the Coastal Sandy Aquifer Extending from Colombo to Negambo.**

- (i) Although the research study should be completed within two and half years from July 2010 or at the end of December 2012, it had not been completed even up to end of the year under review. Further, the acceptable reason had not been given for this unusual delay.
- (ii) Although according to the research proposal the estimated expenditure of research study for the year under review was Rs.4.5 million a sum of Rs. 7.2 million had been allocated in the budget without being considered the research proposal.
- (iii) Even though total estimated expenditure for this research study for the period from 2010 to 2014 was Rs. 145.95 million, the required details such as number of man days and designation of officers engaged in the research studies etc. had not been included in the proposal.
- (iv) An estimated expenditure of Rs. 12 million for development of a ground water model included in the initial proposal and it had been reduced up to Rs. 0.2 million in the year 2013 when extend the research and again it had been increased up to Rs.1 million in the year 2014. However, clear explanations for these changes had not been given.
- (v) Financial progress and physical progress had not been included in the revised research proposal submitted during the year 2014 when extend the research study.
- (vi) Total expenditure of the research by 31 December 2014 was Rs.21,523,539. That was 17 per cent of the total estimated expenditure. Accordingly, the financial progress of the research study was in unsatisfactory level due to unrealistic planning. Further, a proposal with an estimated cost of Rs. 8 million had been prepared for the year 2015.
- (vii) Since at the beginning of the research study, the responsibilities had been assigned to the Assistant General Manager of the Board while extending the research, all the responsibilities had been transferred to the General Manager without any acceptable reason.



(b) **Hydrogeological Study on the Coastal Sandy Aquifer Extending from Colombo to Negambo.**

- (i) Although the research study should be completed within two and half years from July 2010 or at the end of December 2012, it had not been completed even up to end of the year under review. Further, the acceptable reason had not been given for this unusual delay.
- (ii) Although according to the research proposal the estimated expenditure of research study for the year under review was Rs.4.5 million a sum of Rs. 7.2 million had been allocated in the budget without being considered the research proposal.
- (iii) Even though total estimated expenditure for this research study for the period from 2010 to 2014 was Rs. 145.95 million, the required details such as number of man days and designation of officers engaged in the research studies etc. had not been included in the proposal.
- (iv) An estimated expenditure of Rs. 12 million for development of a ground water model included in the initial proposal and it had been reduced up to Rs. 0.2 million in the year 2013 when extend the research and again it had been increased up to Rs.1 million in the year 2014. However, clear explanations for these changes had not been given.
- (v) Financial progress and physical progress had not been included in the revised research proposal submitted during the year 2014 when extend the research study.
- (vi) Total expenditure of the research by 31 December 2014 was Rs.21,523,539. That was 17 per cent of the total estimated expenditure. Accordingly, the financial progress of the research study was in unsatisfactory level due to unrealistic planning. Further, a proposal with an estimated cost of Rs. 8 million had been prepared for the year 2015.
- (vii) Since at the beginning of the research study, the responsibilities had been assigned to the Assistant General Manager of the Board while extending the research, all the responsibilities had been transferred to the General Manager without any acceptable reason.



(viii) Out of 6 specified objectives of the research study, the quantification of recharge to aquifer and to set limits of extraction from the sand aquifer within the study area had been omitted in the year 2014 due to legal matters.

(c) **Ground Water Assessment and Development of Ground Water Monitoring Network for Jaffna Peninsula.**

- (i) The research study had not been completed as scheduled by the end of the year 2014.
- (ii) Although the estimated expenditure and activities for the year 2012 and 2013 had been included in the initial proposal, the information thereon for the year 2014 had not been given.
- (iii) Financial progress and physical progress had not been included in the research proposal when extended it up to 2015.
- (iv) Capital expenditure of the Board expected to be incurred on construction of buildings, procurement of office furniture, machinery, computers and accessories amounting to Rs.23 million had been treated as an expenditure of this research study.

(d) **Hydrogeological Study in Limestones Aquifer in Manner District – Drought Mitigation**

- (i) The study had not been completed as scheduled even by the end of the year 2014.
- (ii) Reasons for delay had not been given
- (iii) The Board had failed to submit revised Project proposal for the year 2015 even though the research study is continued up to 2015.
- (iv) According to the proposal the responsibility of the research had been assigned to the General Manager of the Board. However, the monitoring and successful completion of this kind of research is impossible to General Manager due to his day to day busy works.
- (v) Total expenditure of Rs.3,933,000 incurred in the year under review had become a fruitless due to research study was not successfully completed as scheduled.



- (vi) Although the estimated expenditure of the study for the year under review was Rs.9,000,000, the budgetary provision made thereon was only Rs.7,100,000.

(e) **Hydrogeological Study on the Limestones Aquifers in Mannar District - Water Sector**

Total expenditure of Rs.4,462,000 incurred on above research during the years 2012 and 2013 had become fruitless due to incomplete of research study as scheduled and unavailability of research report.

(f) **The Study on the Possible Direct and Indirect Impacts of Climate Change on Coastal Aquifer System of Sri Lanka.**

- (i) Although the expected expenditure of the research study for the years 2013 and 2014 was totalled to Rs.13,500,000, the actual expenditure was Rs.1,381,000. Hence, the financial progress was only 10 per cent. Further the Board had not taken fruitful measures to complete the research study as scheduled.
- (ii) The responsibility of the research had been assigned to the General Manager of the Board and as such the progress and successfully completion of this kind of researches was at very weak level due to day to day duties assigned to him by the Board.

(g) **Identification of Zones with Hazardous Minerals containing water which Leads to Cause Health Problems to People in Anuradhapura District.**

- (i) Although this research study should be completed as at end of November 2011 or within 18 months from June 2010, it had not been completed even up to end of the year 2014 due to improper planning.
- (ii) Although according to the research proposal the estimated cost of the study for the year under review was Rs. 6,300,000, a sum of Rs. 8,000,000 had been allocated in the budget of the Board for the study without being considered the research proposal.
- (iii) The following 3 new activities which were not included in the initial research proposal had been included in 2012 due to improper planning.



Conducting Hydrogeological Investigations

Constructing the Test Boreholes

Conducting Pumping Tests

- (iv) The financial and physical progress of the study had not been attached to the research proposals when extended it in the years 2012, 2013 and 2014.
- (v) A sum of Rs. 19,800,000 had been allocated for collection and analysis of 300 water samples in the initial research proposal. However, at the extension of the research study in 2012 this amount had been reduced up to Rs.1,000,000 and subsequently it had been reduced to Rs.500,000 in 2013. In the year 2014 only a sum of Rs. 350,000 had been allocated for collection and analysis of 400 water samples, thus indicating that there were weaknesses in the estimation.
- (vi) At the beginning the responsibility of the research had been assigned to Assistant General Manager (Hydrogeology) of the Board. However, in 2014 when extended the research period the responsibility had transfer to the General Manager without indicating the number of man days already utilized and progress of the research. Therefore it could not be examined whether the research was implemented as scheduled.
- (vii) According to the research proposal the main objectives of the study were to determine the possible influential causes of pollution that effect the drinking water resources and to identify the more hazardous and vulnerable zones in the region. Moreover, the overall objective of the project was to introduce good quality drinkable water sources to the people in Anuradahpura area and prevent them from water related deceases. But in the research report submitted neither hazardous nor vulnerable zones had been identified nor recommendation given to prevent, People from water related deceases. Hence it was observed in the audit that the research implemented throughout 4 years by spending an amount of Rs.15,888,990 had failed to make direct benefit to the people of the District.



(viii) The total expenditure amounting to Rs.15,888,990 incurred for the research study was 30 per cent out of the estimated amount of Rs. 23,632,000. Hence it was observed that expected financial progress could not be achieved due to unrealistic planning.

(h) **Implementing Awareness Programme to Mitigate Water Related Health Hazards and Sustainable Exploitation of Water Resources**

- (i) The legal provisions had not been made in the Water Resources Board Act in order to conducting awareness program and distribution of goods.
- (ii) The inclusion of this kind of Project to the Action Plan of the Board and incurring expenditure thereon is controversy to the objective of the Board.
- (iii) Instead of showing project expenditure separately, the total expenditure of Rs. 199,443 incurred during the year under review had been shown under the research study conducted in Anuradahpura District.

(i) **Identification of Suitable Areas for Ground Water Recharge in Sri Lanka Phase I – Puttalam District**

An unsatisfactory financial performance was observed due to only 42 per cent financial progress reported for the year under review.

(j) **Hydrogeological Study in Vauniya and Kilinochchi District**

- (i) An unsatisfactory financial progress observed due to actual expenditure was only 32 per cent out of the estimated expenditure.
- (ii) Financial progress at the end of the year 2013 had not been shown in the event of extending the research proposal in the year 2014.



4.3 Management Inefficiencies

The following observations are made.

- (a) Prompt action had not been taken in respect of non-moving stock and obsolete stocks valued at Rs.70,974,126 remained in the stores.
- (b) The property plant and equipment shown in the statement of financial position aggregating Rs.70,113,000 could not be compared along with the Annual Board of Survey Report due to unavailability of sufficient information.
- (c) Even though a provision of Rs.45,000,000 had been made under the Head 152 - Ministry of Irrigation and Water Resources Management for capital expenditure, only a sum of Rs.37,790,755 or 84 per cent had been utilized during the year under review.

(d) Achievement of Objectives

The Board had not taken necessary action to achieve the following objectives as laid down in Section 12 of the Water Resources Board (Amendment) Act, No. 42 of 1999.

- (i) To make control regulation and development (including the conservation and utilization) of the water resources of the country.
- (ii) To prevent the pollution of rivers, streams and other water resources.
- (iii) To formulate the national policies relating to the control and use of the water resources of the country with the following objectives.
 - ❖ The multi-purpose development and use of water resources.
 - ❖ The short term and long term provision of water resources for domestic supplies and industrial supplies.
 - ❖ The control of salinity
- (iv) To prepare the comprehensive and integrated plans for the conservation, utilization, control and development of the ground water resources of the country.
- (v) To co-ordinate the activities of the Government Departments, Local Authorities and Public Corporations with regard to surveys of basic data and other investigations, relating to hydrogeology.



- (vi) To analyze the reports based on investigations, statistical surveys, plans and proposals relating to the ground water resources of the country made by Government Departments, Local Authorities and Public Corporations.
- (vii) To co-ordinate the projects undertaken by Government Departments, Local Authorities and Public Corporations, relating to the conservation, utilization and development of the subterranean water resources of the country, and the assessment of the possibilities, benefits and economic feasibility of such projects.
- (e) Although five motor vehicles had been shown in the financial statements under non-current assets, the legal ownership was not possessed. Further, the existence of those vehicles had not been verified by the Board of survey conducted during the year 2014. Therefore, the possibility of misappropriation of these vehicles could not be ruled out in audit.

4.4 Transaction of Contentious Nature

The following observations are made in this connection.

- (a) The service advances aggregating Rs. 5,463,608 paid by 25 clients to get done various type of works had been written off by the Board without their concurrence. Further, the Board had failed to submit relevant files relating to 21 clients and out of them contingencies was observed in audit in respect of those written down.
- (b) Total expenditure of Rs.335,701 had been transferred to the Study in Water Quality Changes in Aquifer System – Anuradhapura from Hydrogeological Study in Limestone Aquifers in Mannar District and Artificial Recharge Project (Phase I- Puttalam) without being mention the reasons.
- (c) Although an amount of Rs. 6,652,000 had been received from the Ministry of Irrigation and Water Recourse Management for "Drought Relief Tube Wells Rehabilitation Project" during the year under review, a sum of Rs.7,328,000 had been spent by exceeding Rs. 676,000 for this purpose.



4.5 Build up a Fund for Retirement Benefit

Even though a provision of Rs.79,706,000 had been made in the financial statements of the Board as at 31 December 2014 for the payment of gratuity, only a sum of Rs.7,688,000 had been invested to meet the future obligations.

5. Accountability and Good Governance

5.1 Internal Audit

Although 12 internal audit reports were issued by the Internal Audit Division during the year under review, action had not been taken by the Board to rectify the issues included in those audit reports.

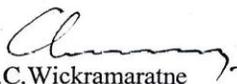
5.2 Budgetary Control

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

6. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman from time to time and special attention is needed in respect of the following areas of control.

- (a) Accounting
- (b) Financial and Physical Performance
- (c) Budgetary Control
- (d) Receivables and Payables
- (e) Conduct of Research Studies


W.P.C. Wickramaratne
Acting Auditor General

WATER RESOURCES BOARD

WRB/AG/AQ/2015

2015.07.13

Auditor General,
Auditor General 's Department,
No.306/72,
Polduwa Road,
Baththaramulla.

REPORT OF THE AUDITOR GENERAL ON THE FINANCIA STATEMENT OF THE WATER RESOURCES BOARD FOR THE YEAR ENDED 31st DECEMBER 2014 IN TERMS OF SECTION 14 (2) (c) OF THE FINANCE ACT. NO. 38 OF 1971

This refers to your report No LP/G/WRB/1/15/1 dated 25th June 2015 on the above matter. My observations are given below.

2.2 Comments on Financial Statements.

2.2.1 Accounting Policies

As the expenditure mentioned here (salaries, overtime, travelling, fuel and other consumables) are directly related to the research activities, these expenses were charged into the research studies. An action has been taken to disclose the accounting policy in this regard.

2.2..2. Accounting Deficiencies

Property, plant and equipments are being computerizing and action will be taken to reconcile with the physical balance. However, some items such as Bulbs, punchers, plugs, glass pads etc. which have been charged as expense to be reconcile with the inventory Registers available in the relevant divisions.

2.2.3 Un- reconciled control Accounts.

There were no any difference between the Treasury print-out and figures shown in the financial statements. The operational cost of Rs. 26,500,000/- disclosed at the statement of performance and utilization of Rs. 11,290,756/- for the purchase of assets were disclosed at the statement of Equity. Also it has been shown under the financing activities of the Cash flow statement.

2.2.4. Accounts Receivable and Payable.

- (a) An amount of Rs. 43,365/- has been recovered and action has been taken to recover the balance amount.
- (b) Action is being taken to clear the service advance for various type of work.
- (c) i. It has to be refund the balance amount due to high salinity condition at Karamba drinking Water Project. Action has to be taken to clear.
ii. An amount of Rs. 113,008 has to be refund at puttalam .Although, the job was estimated to construct a Tube well up to 90 meters, it was completed by 60 meters. Other amount of Rs. 1,120/- for testing of water sample in Jaffna area has completed in 2015 under invoice No. 13821
iii. Action has been taken to send the confirmation letters.

2.2.5 Lack of Evidence for Audit.

Confirmation letters on Debtors and Creditors balance were sent to relevant institutions and individuals with the concurrence of the Government Audit Division.

2.2.6 Non – compliance with Laws, Rules Regulations etc.

Reference

Comments.

- | | |
|--|--|
| (a) Section 14 (1) and 14 (2) of WRB Act | Although, the comprising of advisory committee to Board it had not been met during the year under review. |
| (b) Section 14 (3) of finance Act. | Annual Report of year 2010, and 2011 has been tabled in Parliament. Arrangements are has been made to submit the report of year 2012 to the ministry of Irrigation requesting them to forward it to the Cabinet. |
| (c) Circular No.PED/12 | Requested to get the Treasury approval on 05.02.2013 by the chairman's Letter No. CH/117 from the then secretary, Ministry of Water Resources Management for the payment of special allowance to employees of the Board. |
| (d) Treasury Circular No 842 dated 19 December 1978. | Action has been taken to computerizing assets. |

4. Operating Review

4.1 Performance

- (i) Drought Relief Tube Wells Rehabilitation Project has been formulated in mid of year 2014 considering the drought condition of several districts. Therefore, it was not able to include initial estimate prepared in beginning of the year.
- (ii) During the year 2014, requests for groundwater development projects or wind mills had not been received. Therefore, no income were earned.
- (iii) Since Pumping Test relating to the research studies in Anuradhapura had been conducted using available pumping test equipment of WRB, the estimated pumping test equipment was not purchased.
Out of 10 Nos awareness programmes scheduled under the study in 2014, 07 Nos were already completed.
- (iv) Drought relief tube well rehabilitation project were commenced in mid of year and funds were received through the ministry of Irrigation and Water Management.

4.2 Weaknesses in the Implementation of Research Projects.

(a) Common lapses in the Implementation of Research Projects

- (i) Although the General Manager is responsible for overall research studies, Senior research officers (Hydrogeologists) were appointed as project officers for each research study.
- (ii) Service of expert consultants for research works will be considered in this regard for future studies.
- (iii) Since these officers are engaged with other official duties of the Board, it is not possible to allocate separate man days to them for research studies.
- (iv) Instruction has been given to submit physical progress achieved in an event of extending the project period.
- (v) It is instructed to include details of each expenditure item to research proposals adequately.
- (vi) Although the overall project responsibility had been assigned to General Manager, qualified project officers (Hydrogeologists who are presently working in WRB) were appointed to each research study.
However, possibility to take service of external consultants relating the research studies will be considered to future studies.

(b) Hydrogeological Study on the Coastal Sandy Aquifer Extending from Colombo to Negombo.

- (i)** The main objective of this study is to identify, develop, manage, allocate and conserve the sandy aquifer extending from Colombo to Negombo.
As the initial activity of the study, data collection were commenced in 2011. When gathering the available data, it was understood that time series (Temporal) groundwater data such as seasonal water level fluctuation and water quality changes were not available for the study. Since those data are very essential to achieve the project objective, it is decided to collect them at least for three years period and up to 2014. Project was extended accordingly.
- (ii)** Since the project is extended to complete in 2014, the budget has been increased.
- (iii)** The estimated expenditure on main project activities that would be sufficient to allocate funds were included to the project proposal. Detailed estimates were then prepared for every and each activity while preparation of annual action plan for the study.
- (iv)** Since most of the digital data, software and other information necessary for model construction were received from Dam Safety and Water Resources Planning project, the cost for preparation of groundwater model were reduced in 2013. However, it was increased to one million to get expert consultancy on groundwater model preparation.
- (v)** Although the physical and financial progress not included to revised project proposal for 2014, an Annual report showing physical progress of the study had been submitted.
- (vi)** Considering the responsibilities given to WRB under section 12 of the WRB (amended) act No 42 of 1999, those research studies have been formulated as a National requirement in order to sustainable development of the groundwater resources of the country.
However, conducting of regional level groundwater research projects is a new subject to the Board, said weaknesses have been occurred. Instruction were given to relevant officers to avoid such weaknesses as much as possible.
- (vii)** In 2014 Assistant General Manager post of WRB was vacated and therefore research study responsibilities were given to General manager.
- (viii)** The said objective was omitted until setting of legal provisions on groundwater control regulations.

(c) Groundwater Assessment and development of Groundwater monitoring Network for Jaffna Peninsula.

- (i), (ii), Since conducting of research studies on macro level is new for WRB, the initial project proposals were subjected to further extensions and revising of estimates. However, action will be taken to avoid such weaknesses in future works.
- (iii) Although the physical and financial progress not included to revised project proposal for 2014, an Annual report showing physical progress of the study had been submitted.
- (iv) Since infrastructure facilities of WRB in Jaffna had been abandoned in last 30 years, expenditure on establishment of project office Laboratory facilities and purchasing of new scientific equipment is a requirement of the study project.

(d) Hydrogeological Study on the Limestone Aquifers in Mannar District – Drought Mitigation

- (i), (ii), This project has been formulated to understand subsurface conditions of existing limestone aquifers in Mannar District. Methodology of such kind of study is firstly analyzing of initial stage study results and based on these results determine further research activities that required to data gap filling such as construction of test bore holes, pumping tests and water quality testing etc. Accordingly, the study extended to several stages up to 2015.
- (iii) A revised estimate for 2015 had been submitted.
- (iv) Although the General Manager is responsible for the research studies, Senior research officer (Hydrogeologist) were appointed as project officer.
- (v) The groundwater data and other study findings on Limestone aquifer is very useful to future groundwater management of the area and therefore the study is fruitful.
- (vi) Considering the project activities would be performed the project estimates were reviewed and revised from Rs. 9 Mn to 7.1 Mn. in mid of the year.

(e) Hydrogeological Study on the Limestone Aquifers in Mannar District – Water Sector

This is the same project mentioned above (d). The project report including physical progress, project findings, results and recommendations made so far was submitted.

(f) The study on the possible direct and indirect Impacts of Climate Change on Coastal aquifer system of Sri Lanka.

- (i) Due to the lack of necessary facilities to this study the project progress in 2013 was reduced. Considering this situation, the estimates for 2014 was reduced and achieved 78% progress in 2014.
- (ii) Although the General Manager is responsible for the research studies, Senior research officer (Hydrogeologist) were appointed as project officer.

(g) Identification of Zones with Hazardous Minerals Containing Water Which leads to Cause Health Problems to People in Anuradhapura District.

- (i), While conducting of this study, it is understood that data on seasonal fluctuation of water quality is very important and required to achieve project objectives. Since these data are not available up to 2010, arrangement were made to collect seasonal data covering wet and dry periods up to 2014. Therefore, the study has been extended for fulfilling data requirement on groundwater quality distribution within the district. The water quality maps showing hazardous areas will be prepared and published.
- (ii) Considering the project activities would be performed the project estimates were reviewed and revised from Rs. 8Mn to 6.3Mn. in mid of the year with the consent of the treasury.
- (iii) Since the unavailability of test boreholes at the beginning of the study, arrangements were made to conduct additional groundwater investigations, test borehole drilling, conducting of pumping tests etc. Accordingly, original proposal was emended by including such activities and continued the project up to end of 2014.
- (iv) Although the physical and financial progress not included to revised project proposal for 2014, an Annual report showing physical progress of the study had been submitted.
- (v) Since analytical chemical parameters of each water sample is reduced the estimate on chemical analysis in 2012, 2013 and 2014 were reduced.
- (vi) In 2014 Assistant General Manager Post of WRB was vacated and therefore research study responsibilities were given to General Manager.

- (vii) The final report included the identified hazardous areas, vulnerable water quality zones and variety of pollutants etc. Additionally, based on the study steps had been taken to convince the people of the area by awareness programmes regarding the water quality hazards during the study. The study recommendations were submitted relevant authorities including local and government.
- (viii) Total Expenditure of Rs. 15,888,990/- of the research was 67% in estimated expenditure of Rs. 23,632,000/-. Although the 100% financial Progress were not achieved the research activities had been completed as much as possible in order to fulfill the project objectives.

(h) Implementing Awareness programme to mitigate Water Related Health Hazards and Sustainable Exploitation of Water Resources.

- (i) As per the provision given by Water Resources Board Act on groundwater development, it is a prime responsibility of the board to convince the people on water born hazards and give advices and necessary assistant to them in order to prevent from such hazardous conditions. Accordingly, awareness programmes, water Clinics and introducing appropriate water filters and suitable cooking pots had been conducted under this project.
- (ii)(iii) This project also conducted as a part of the study “ Identification of Zones with Hazardous Minerals Containing Water Which leads to Cause Health Problems to People in Anuradhapura District”.

(i) Identification of Suitable areas for Groundwater Recharge in Sri Lanka Phase I – Puttalam District

- (i) Although the financial performance of the study is 42% in 2014, steps will be taken to achieve project objectives by fulfilling the physical targets in 2015.

(j) Hydrogeological Study in Vavuniya and Kilinochchi Districts

- (i) Study progress were reduced due to the non availability of tube well construction machinery and equipment as they were deployed to urgent and emergency drought relief deep well construction projects in Mulathive and Kilinochchi Districts. The study will continued in 2015 to achieve the project objectives.
- (ii) Instruction has been given to relevant officers to include the progress in an event of further extending the project.

4.3 Management Inefficiencies

- (a) The majority of Equipments and Machinery are very old and the spare parts of those equipments frequently useful for repairs, as a result of that those machinery cannot be remove from the pool, addition to that those machinery are not available in the present market. However, the action will be taken to remove the unnecessary items identified under the Board of Survey.
- (b) Property plants and equipments are being computerizing.
- (c) All the capital Grants were released under vote No. 152-02-04-1-2201 for the research studies and improvements. The release were based on the monthly cash forecast and Rs. 2,509,244/- was returned to the General Treasury after the reconciliation of such items. Therefore, no any amount exceeded with the estimated allocation.
- (d) The ownership of 03 Nos. Motor Vehicles had been obtained during the year under review and action has already been taken to submit the up dated schedule.

4.4 Transaction of Contentious Nature

- (a) As there was no response from the respective clients and the available records were not sufficient to follow refunding procedure, the Board had decided to close the long outstanding service Advance
- (b) All the capital Grants were released under vote No. 152-02-04-2201 for the reseach studies and Improvements. The releases were based on the monthly cash forecast and Rs. 2,509,244/- was retuned to the General Treasury after the reconciliation of such items. Therefore , no any amount exceeded with the estimated allocation.
- (c) An amount of Rs. 6,652,000/- has been received during the year 2014 from the ministry of Irrigation and Water Resources Management for the reimbursement of actual cost of Rs. 7,328,000/- for Drought Relief Rehabilitation Project. Therefore, the amount of Rs. 676,000/- were utilized from the Board.
- (d) The ownership of 03 Nos. Motor Vehicles had been obtained during the year under review and action has already been taken to submit the updated schedule.

4.5 Build up a fund for retirement Benefit

Action is being taken to increase the fund for retirement benefits.

5 Accountability and Good Governance

5.1 Internal Audit

09 Nos. of issues have been rectified by the Board.

5.2 Budgetary Control

Action will be taken to minimize the estimated income and actual expenditure by preparation of estimates as much as closer to the actual costs.

6. Systems and Controls

Accepted and action will be taken to improve on following areas of control.

- a. Accounting
- b. Financial and physical performance
- c. Budgetary control
- d. Receivables and payables
- e. Research studies

Sgd. A.C.M. Zulfikar
Chairman
Water Resources Board

A Summary of the performance of the Institution during the relevant period:

Physical and Financial Progress of Project Conducted by Water Resources Board for Year 2014

A) Projects under Treasury Funds

(i) Water quality changes in aquifer systems and identification of zones with hazardous minerals containing in water in Anuradhapura District

Under this project ground water quality study was carried out in Malwathu oya, Yann oya, Kala oya, Modaragam Ara and Ma Oya river basins. In accordance 08 numbers of awareness programmes and 07 number of water clinics were conducted. An amount of 4.711 million rupees was expended from the granted amount of 5.238 million rupees.



Awareness Programme

(ii) Longterm ground water monitoring of the coastal sandy extending from Colombo to Negambo (CN Project)

Under this project, leveling of monitoring wells (78), collecting water sample and analyzing chemical parameters of water, conducting hydrogeological investigations and drilling shallow tube wells (78) were carried out to study coastal aquifer extending from Colombo to Negombo qualitatively and quantitatively. An amount of 6.360 million rupees was expended from the granted amount of 6.600 million rupees for the project.



Measuring Well Data

(iii) Development of Ground Water Monitoring Network for Jaffna Peninsula (Jaffna Project)

Under this project, collecting water sample and analyzing chemical parameters of water, conducting hydrogeological and geophysical investigations and drilling shallow tube wells were carried. Equipments which are necessary in implementing above activities were also purchased. Amount of 5.300 million rupees was expended from the granted amount of 5.600 million rupees for the project.



Awareness Programm with GA Jaffna

(viii) Identification of suitable area for ground water recharge in Sri Lanka (Phase I- Puttalam District)

The main objective of the project is to identify aquifer parameters and its extension and from that developing a method for artificial recharge in Puttalam area. The total granted amount of 1.250 million rupees was expended in the project activities.



Geophysical Investigation at Puttalam

All the reports of the above mentioned projects are on preparation.

(ix) On the request of government bodies and private sector clients following investigations were done amounting to total cost of 84.92 million rupees.

Hydrogeological Investigations	-	292
Construction of tube wells	-	91
Pump tests	-	119
Cleaning of existing wells	-	42
Chemical Analysis of water sample	-	2205

The measures adopted to rectify the accounting and management deficiencies pointed out in the audit Queries and audit reports of the Auditor General;

1. When preparing the estimate of budget, adhere to proper methods and do necessary amendments to the estimate in order to minimize the variations.
2. Necessary steps have been taken to transfer those vehicles which had not been transferred to the board.
3. Appointing the stock verification committee, actions have been taken to identify the goods and after that actions have been taken to disposal and sale .
4. Steps have been taken rectify the accounts as shown the audit queries. by journal enters.
5. Necessary steps have been taken to prepare and maintain the fixed assets register.
6. For necessary steps have been taken to get the attention of the Secretary of the ministry change in the composition of advisory committee.

A Summary of the short term and medium term measures proposed to be implemented to enhance the performance of the institution.

Water Resources Board is engaged with Water Resources Studies in Sri Lanka. 08 Nos. of Studies according to the Action Plan, 2014. In addition to that, the commercial works (i.e. construction of tube wells etc.) were done on the requests made by the Government and Private parties. To upgrade the efficiency of the studies and commercial activities of the Board, the following actions were taken.

1. Action was taken to grant promotions to motivate the employees.
2. Training of the staff to upgrade their management and technical knowledge.
3. Upgrade the vehicle fleet to facilitate the field activities.
4. Procurement of Geophysical equipment and equipment required for analyze water quality in order to increase the No. of Hydrogeological Surveys and No. of water analysis carried out by the Board.
5. Evaluate the weekly progress of all the Divisions of the Board.
6. Action will be taken to manage and control the fixed assets using the software.
7. Follow up of all the activities carried out by the Board.

