

## **Message from Secretary to the Ministry of Irrigation**

The government has invested approximately Rs 49 billion on water Resources development in 2014. Special attention has been focused on construction of multipurpose Irrigation Projects, broaden and rehabilitation of the existing irrigation projects as well as study on new project proposals. Active and enthusiastic role played by implementing institution under the Ministry, the Irrigation Department, Mahaweli Authority of Sri Lanka and Water Resources Board in performing their duties, utilizing huge investment on water resources development in 2014, is commendable.

It is remarkable that the Rambakan Oya and Deduru Oya Reservoir Project could be completed and was able to water issue in 2014. We could also commence the constructions of Yan Oya Reservoir Project, Moragahakanda and Kalugala Oya and was able to achieve their targets.

The design works for proposed Upper Elahera Canal, North Central Province Canal and North Western Province Canal Projects for harnessing excess water potential in Mahaweli River including water of Moragahakanda- Kalugala reservoirs for the benefit of North-West and North Central Province could be finalized at the end of year 2014. Memorandum of understanding was signed with ADB to finance the 1<sup>st</sup> stage of the Project. The studies to Gin Nilwala Diversion Project aiming diversion of 500 MCM additional water from Gin and Nilwala rivers to South – East dry zone generating 140 MW power, could also be commenced.

In addition construction works of the Uma Oya Multipurpose Reservoir Project to convey 200 MCM of water annually to North Eastern dry zone could also achieve a good progress. It is expected to generate 25 MW hydropower, construct two medium reservoirs in Thanamalwilla and Wellavaya, and rehabilitate Hadapanagala Reservoir and to supply additional irrigation water to 90 small tanks in Monaragala district by this project.

Under the Dam Safety and Water Resources Planning Project implemented in last few years, 32 dams has been rehabilitated and 80 dams has been provided with. Basic Safety Facilities. It is with pleasure that I express, considering the successful implementation of the project the donor, World Bank has agreed to extend funding for rehabilitation of additional number of high risk dams which will be implemented from 2014 to 2020.

Finding short term and long term solutions to the challenges posed by climate change scenarios are being addressed by climate Resilience Improvement Project which is planned to be implemented from 2014 - 2017 with an investment of 110 US \$ millions. Rectification of flood damages occurred during last decade will be attended mainly as short term solution while a comprehensive plan will be prepared to

develop 10 major river basins to mitigate adverse effects of floods as well as droughts expected due to climate change.

I take this opportunity to offer my sincere appreciation to all the staff of the Ministry and all implementing institutions who have performed their duties well in managing and increasing efficiency of major and medium irrigation projects in addition to above mentioned new projects to increase water and land productivity and full fill water requirement for the food security of the nation.

**Gamini Rajakaruna**

Secretary

Ministry of Irrigation

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## **Ministry of Irrigation and Water Resources Management**

### **Annual Performance Report - 2014**

#### **1. Vision**

Prosperous Sri Lanka through Water and Irrigation Heritage

#### **2. Mission**

Providing well being of community and environment by fulfilling all water needs through Water Resources Management

#### **3. The Main Functions of the Ministry**

- 1 Formulation of policies and implementation of Projects and Programmes
- 2 Fulfilling obligations under “Mahinda Chinthana – Vision for the Future”
- 3 Promotion, construction, operation, maintenance and management of Irrigation systems, Rain water harvesting, and Ground water resources development
- 4 Salt water exclusion programmes
- 5 Drainage and Flood protection
- 6 Prevention of the pollution of rivers, streams, reservoirs and other water bodies
- 7 Engineering consultancy services and construction
- 8 Implementation of legislative enactments relevant to the subjects and Institutions under the Ministry.

**4. Actual against the forecast in relation to expenditure under  
Ministry Head 152 and ID Head 282**

Form A Appropriation Account

Form B Revenue Account

Form C Advance Account

Form D Fund Account

Annual Performance Report 2014

CATEGORY : APROPRIATION ACCOUNT Head 152						Form - A						
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2014		Previous Year Actual 2013	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
	Budgeted	Actual		Budget	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Years Actual
<b>Programme Title and No.</b>												
Operational Activities 01												
<b>Project Title and No:</b>												
Minister office 01												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	20,500	18,615	20,039	91%	93%							
Other Recurrnt	33,780	33,773	33,767	100%	100%							
<b>Project Title and No:</b>												
Administration & Establishment Services 02												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	45,929	45885	38155	100%	120%							
Other Recurrnt	29,214	29121	17551	100%	166%							

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CATEGORY : APROPRIATION ACCOUNT		Head 152		Form - A									
Description		Financial Performance (Rs.In '000)				Physical Performance							
		Current Year 2014		Previous Year Actual 2013	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
		Budgeted	Actual		Budget	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year's Actual
<b>Programme Title and No.</b>													
Development Activities 02													
<b>Project Title and No:</b>													
Inter provincial irrigation Development Programes 03													
Expenditure													
Recurrent Expenditure													
Personnel Emoluments		82,900	82,896	58,084	100%	143%							
Other Recurrnt		13,518	12,660	10,989	94%	115%							
<b>Project Title and No:</b>													
Irrigation Institutions & Development Programmes 04													
Expenditure													
Recurrent Expenditure													
Personnel Emoluments													
Other Recurrnt		2,082,854	2,057,000	1,883,100	99%	109%							
<b>Total</b>		<b>2,179,272</b>	<b>2,152,556</b>	<b>1,952,173</b>	<b>99%</b>	<b>111%</b>							

Annual Performance Report 2014

CATEGORY : APROPRIATION ACCOUNT 152											Form - A	
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2014		Previous Year Actual 2013	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
	Budgeted	Actual		Budget	Previous Year Actual	Type/Class	Measure	Targeted	Actual		Target ed	Previo us Years Actual
<b>Capital Expenditure</b>												
Operational Activities 01												
Minister office 01	34,500	32,944	6,632	95%	497%							
Administration & Establishment Services 02	95,951	92,894	8,125	97%	114%							
Development Activities 02												
Inter provincial irrigation Development Programmes 03	35,430,334	27,637,482	19,515,467	78%	141%							
Development programme of irrigation institutions 04	1,595,000	6,126,791	1,315,755	81%	93%							
Mahaweli Irrigation Development Programmes 05	960,000	925,000	485,000	96%	191%							
<b>Total Expenditure</b>	<b>38,115,785</b>	<b>34,815,111</b>	<b>21,330,979</b>	<b>80%</b>	<b>137%</b>							

<b>CATEGORY : REVENUE ACCOUNTS</b>		<b>HEAD 152</b>					<b>Form -B</b>							
<b>Description</b>	<b>Financial Performance (Rs.In '000)</b>						<b>Physical Performance</b>							
	<b>Arears of Revenue As At 01.01.2014</b>	<b>Current Year</b>		<b>Previous Year Actual</b>	<b>Variation Over</b>		<b>Arears of Revenue As At 01.01.200 *</b>	<b>Output (Service /Goods)</b>		<b>Current Year's Output</b>		<b>Previous Years output</b>	<b>Variation Over</b>	
		<b>Budgeted</b>	<b>Actual</b>		<b>Budget</b>	<b>Previous Year Actual</b>		<b>Type/ Class</b>	<b>Measure</b>	<b>Targeted</b>	<b>Actual</b>		<b>Targeted</b>	<b>Previous Years Actual</b>
Revenue Codes														
20.02.01.01		700	2400	700	343%	343%								
20.0202.99		1200	1161	1100	96%	106%								
20.03.99.00		10000	6657	14800	66%	45%								
2003.04.00		0	39875											
2004.01.00		0	4138											
Total Revenue		11900	54231	16600										

Annual Performance Report 2014

CATEGORY : ADVANCE ACCOUNTS		HEAD 152				Form -C						
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2014		Previous Year Actual 2013	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
	Prescribed	Actual		Prescribed	Previous Year Actual	Type/Class	Measure	Targeted	Actual		Targeted	Previous Years Actual
Type:												
<b>Account Title &amp; No:</b> Advances to Public Officers 152011												
Maximum Expenditure Limit	10,000	9,832	9,379	98%	105%							
Minimum Receipt Limit	6,000	7,636	7,291	127%	95%							
Maximum Debit Limit	36,000	31,555	32,103									
Maximum Liability												
Financial Results												

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CATEGORY : APPROPRIATION ACCOUNT						FORM : A						
DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual	Variations Over		Output Service/Goods		Current Years Output		Previous Year Output	Variations over	
	Budgeted	Actual		Budgeted	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year Actual
<b>Programme 01- Operational Activities</b>												
<b>Project 01 - Administration &amp; Establishment Services</b>												
Expenditure												
Recurrent Expenditure												
Personal Emoluments	396,500	396,032	301,746	89,700	94,286		%	100	99.88	98.35	0.12	1.53
Other Recurrent	78,330	76,493	67,474	9,180	9,019		%	100	97.65	97.58	2.35	0.07
<b>Total</b>	<b>474,830</b>	<b>472,525</b>	<b>369,220</b>	<b>98,880</b>	<b>103,305</b>							
Capital Expenditure												
2001	30,000	28,090	25,737	500	2,353	(a)	%	100	93.63	87.24	6.37	6.39
2002	650	618	559	25	59	(b)	%	100	95.08	89.44	4.92	5.64
2003	4,500	4,338	3,440	800	898	(c)	%	100	96.40	92.97	3.60	3.43
2102	8,000	7,747	6,175	1,500	1,572	(d)	%	100	96.84	95.00	3.16	1.84
2104	0		0	0		(e)						
2401	2,520	2,520	1,925	520	595	(f)	%	100	100.00	96.25	0.00	3.75
<b>Total</b>	<b>45,670</b>	<b>43,313</b>	<b>37,836</b>	<b>3,345</b>	<b>5,477</b>							

- (a) Rehabilitation & Improvements of Building & structures
- (b) Rehabilitation & Improvements of Plant Machinery & Equipment
- (c) Rehabilitation & Improvements of Vehicles

- (d) Acquisition of Furniture & office equipment
- (e) Acquisition of Building & structures
- (f) Training & capacity Building

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CATEGORY : APPROPRIATION ACCOUNT						FORM : A						
DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual	Variations Over		Output Service/Goods		Current Year Output		Previous Year Output	Variations over	
	Budgeted	Actual		Budgeted	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year's Actual
<b>Programme 02- Development Activities</b>												
<b>Project 02 - Administration &amp; Maintenance of Irrigation Schemes</b>												
Expenditure												
Recurrent Expenditure												
Personal Emoluments	1,283,182	1,275,985	963,464	308,932	312,521			100	99.44	98.89	0.56	0.55
Other Recurrent	84,872	84,863	84,020	-478	843			100	99.99	98.44	0.01	1.55
<b>Total</b>	<b>1,368,054</b>	<b>1,360,848</b>	<b>1,047,484</b>	<b>308,454</b>	<b>313,364</b>							
Capital Expenditure												
2001	1,340,120	1,335,753	1,309,340	-111,880	26,413	(a)	%	100	99.67	90.17	0.33	9.50
2002	54,041	54,041	58,186	-10,459	-4,145	(b)	%	100	100.00	90.21	0.00	9.79
2003	35,126	35,126	39,182	-7,374	-4,056	(c)	%	100	100.00	92.19	0.00	7.81
2101	26,830	26,830	0	1,830	26,830	(d)	%	100	0.00	0.00	100.00	0.00
2102	19,225	19,224	17,870	-6,375	1,354	(e)	%	100	99.99	69.80	0.01	30.19
2103	304,941	304,941	236,424	-57,859	68,517	(f)	%	100	100.00	65.17	0.00	34.83
2104	76,068	76,067	31,598	31,068	44,469	(g)	%	100	100.00	70.22	0.00	29.78
2502	118,173	118,090	98,367	-37,027	19,723	(h)	%	100	99.93	63.38	0.07	36.55
<b>Total Expenditure</b>	<b>1,974,524</b>	<b>1,970,072</b>	<b>1,790,967</b>	<b>-198,076</b>	<b>179,105</b>							

- (a) Rehabilitation & Improvements of Building & Structures
- (b) Rep. to plant machinery & equipment
- (c) Repairs to vehicles
- (d) Acquisition of vehicles

- (e) Acquisition of Furniture & office equipment
- (f) Acquisition of plant machinery & equipment
- (g) Acquisition of Building & structure
- (h) Other capital expenditure

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CATEGORY : APPROPRIATION ACCOUNT						FORM : A						
DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual	Variations Over		Output Service/Goods		Current Years Output		Previous Year Output	Variations over	
	Budgeted	Actual		Budgeted	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year's Actual
<b>Programme 02- Deveopment Activities</b> <b>Project 03 - Major Irrigation schemes</b>  Expenditure Recurrent Expenditure Personel Emoluments Other Recurrent <b>Total</b>												
Capital Expenditure 2105	8,649,988	8,649,985	4,077,510	4,354,984	4,572,475	(a)	%	100	100.00	94.94	0.00	5.06
<b>Total Expenditure</b>	8,649,988	8,649,985	4,077,510	4,354,984	4,572,475							

(a) Major Irrigation Scheme

CATEGORY : APPROPRIATION ACCOUNT	FORM : A
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DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual	Variations Over		Output Service/Goods		Current Years Output		Previous Year Output	Variations over	
	Budgeted	Actual		Budgeted	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year's Actual
<b>Programme 02- Deveopment Activities</b> <b>Project 04 - Medium Irrigation schemes</b>												
Expenditure												
Recurrent Expenditure												
Personel Emoluments	-	-	-	-	-							
Other Recurrent	-	-	-	-	-							
<b>Total</b>	-	-	-	-	-							
Capital Expenditure												
2105	350,276	350,267	182,894	143,850	167,373	(a)	%	100	100.00	88.60	0.00	11.40
<b>Total Expenditure</b>	350,276	350,267	182,894	143,850	167,373							

(a) Medium Irrigation Scheme

CATEGORY : REVENUE ACCOUNT

FORM : B

DESCRIPTION : Public Officer's Advance Account	Financial Performance (Rs, in'000')						Physical Performance							
	Arrears of Revenue as at 01-01-2014	Current Year		Previous Year Actual	Variations Over		Arrears of Revenue as at 31-12-2014	Output Service/Goods		Current Years Output		Previous Year Output Actual	Variations over	
		Budgeted	Actual		Budgeted	Previous Year Actual		Type/Class	Measure	Targeted	Actual		Targeted	Previous Year Actual
<b>Revenue codes</b>														
<b>20.02.01.01</b> Renet on Government Buildings		12,000	11,803	11,448	2,000	355			%	100	98.36	114.48	1.64	-1
<b>20.02.02.99</b> Interest - Other		15,500	13,178	13,711	500	-533			%	100	85.02	91.41	14.98	-
<b>20.03.02.99</b>		0	182	0	0	182			%	100				
<b>20.03.99.00</b> Other Receipts		15,000	34,170	59,157	5,000	-24,987			%	100	227.80	591.57	-127.80	-36
<b>20.06.02.00</b> Sales of capital assets		20,000	28,601	32,937	0	-4,336			%	100	143.01	164.69	-43.01	-2
<b>20.03.04.00</b>		0	9,233	0	0	9,233			%	100				
<b>Total</b>		<b>62,500</b>	<b>97,167</b>	<b>117,253</b>	<b>7,500</b>	<b>-20,086</b>								

Annual Performance Report 2014

CATEGORY : ADVANCE ACCOUNT											FORM : C	
DESCRIPTION : Public Officer's Advance Account	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual	Variations Over		Output Service/Goods		Current Years Output		Previous Year Output Actual	Variations over	
	Prescribe	Actual		Prescribe	Previous Year Actual	Type/Class	Measure	Targeted	Actual		Targeted	Previous Year Actual
<b>Type</b>												
<b>Account Tile &amp; No. 282011</b>												
Maximum expenditure Limit	130,000	120,610	84,568	9,390	36,042		%	100	92.78	64.58	7.22	28
Minimum Receipt Limit	97,000	98,529	106,064	-1,529	-7,535		%	100	101.58	112.30	-1.58	-10.72
Maximum Debit Limit	500,000	357,022	333,712	142,978	23,310		%	100	71.40	66.99	28.60	4.41
Maximum Liability	-	-	-	-	-			-	-	-	-	-
Financial results	-	-	-	-	-			-	-	-	-	-

## 5. Performance of Special Projects and Programmes

### a) Uma Oya Multipurpose Development Project (UOMDP)

**Location** : Welimada DS Division in Badulla District

The implementation of the project commenced in March 2010 through a loan provided by the Government of Islamic Republic of Iran (GIRI) by the Export Development Bank of Iran (EDBI) and the funds provided by the Government of Sri Lanka. The main contractor for the construction of head works is FARAB Company of Iran.

**The Estimated Project Cost including Down Stream Development is Rs. 5,474,250,000/=**

Export Development Bank of Iran	- USD 450,000,000	} Head Works & Other
GOSL	- USD 79,059,198 and	
	- Rs. 6,121,750/=	
GOSL	- Rs. 9,352,500,000 – Down Stream Development Works	

#### Progress of Headwork at the end of 2014

1. The contract commencement date is 15 March 2010.
2. Scheduled construction completion date is 15 November 2015 and the scheduled contractual completion date is 15 November 2016.
3. Environmental Impact Assessment for the Headwork is approved by the Central Environmental and draft IEE for the Transmission line submitted to CEA.
4. Final Feasibility Study Report was submitted by the Contractor in February 2012.
5. The Employer's Requirements (ER) and the Technical Specifications were discussed with the Contractor and are in the process of finalization.
6. Design of Civil Construction Works 87.8 percent completed.
7. Manufacturing of turbines, generators was in progress.
8. All necessary land required for the project has been acquired other than the additional land for switchyard and land for transmission line.

## Uma Oya Down Stream Development

Estimated Cost Rs.	: 9352 Mn
Existing irrigable area	: 3200 Acs.
New irrigable lands	: 11,000 Acs.
Project is to be completed	: End of 2016

Total cost Estimate of the project is Rs. 9352 million and the total expenditure up to end of 2014 is Rs. 102.64 Millions. Currently following works are carried out under Uma Oya Downstream Development Project.

### Main components

- Construction of Alikota Ara Reservoir ( 6.5 MCM) - 17% completed
- Construction of Kuda Oya Reservoir(40.0 MCM) - 4% completed
- Increasing the Capacity of Handapanagala Tank ( Present 6.5 MCM up to 14 MCM) -55% completed
- Construction of Main Canal Alikota Ara to Kuda Oya (36 km including Tunnel) (New Proposal 18.5 km including 0.4 km and 2.5 km tunnels)
- Construction of Main Canal KudaOya to Sinhalayagama Tank (30 km)
- Construction of Main Canal Handapanagala LB (New 11 km)
- Restoration of selected existing Tanks

Construction of AlikotaAra



Uma Oya D/S Project



Construction of Kuda Ova

Allocation for 2014 was Rs 14,485 Million and expended amount is Rs 2,443 Million. Cumulative Expenditure of the project at the end of 2014 was Rs 22,996 Million and cumulative physical progress was 28% end at the end of December 2014.

## **b) Dam Safety and Water Resources Planning Project (DSWRPP)**

### **Project Objectives:**

Dam Safety and Water Resources Planning Project (DSWRPP) which is executed by the Ministry of Irrigation and Water Resource Planning is one of the key steps take under the overall Development efforts of the Government. The uniqueness of the project is that it is designed to preserve our ancient irrigation techniques and structures for the future generations and also to get the maximum benefit of the available water resources.

The main activities coming under the project objectives are to: (a) establish long-term sustainable arrangements for Operation and Maintenance of large dams; and (b) improve Water Resources Planning that would contribute to protect the public from potential water induced hazards and enhance the long term capacity for sustainable planning and management of water resources and related hydraulic infrastructure of the country. The project outcomes would complement and supplement the government effort for rural development, growth and poverty alleviation and protecting the public from natural hazards. These objectives will be achieved by implementing three main project components namely (i) Improving Dam Safety and Operational Efficiency; (ii) Upgrading and Modernizing the existing Hydro-meteorological information systems; and (iii) Providing technical assistance for developing National Water use Plans which includes (1) National Water Use Plan, (2) Update Mahaweli Water Resource Development Plan and (3) Mundeni Aru Basin development plan.

### **Project Implementation Agencies (IAs):**

The Project is being implemented by five Implementing Agencies (IAs) namely Mahaweli Authority of Sri Lanka (MASL), Irrigation Department (ID), Ceylon Electricity Board (CEB), National Water Supply and Drainage Board (NWS&DB) and Water Resources Board (WRB).

### **Project Financing:**

The total estimated project cost including contingencies is Rs 8,187 million equivalent to US\$ 71.66 million of which Rs7,463.81 million (US \$ 65.33) is financed by the IDA-WB and balance amount is contributed by the GOSL. Project is executed by the Ministry of Irrigation and Water Resources Management and implemented by the Implementing Agencies together with Project Management Unit(PMU).

**Project Period:**

Initial project implementation period was 5 years from 26 June 2008 to 27 June 2013 and now it has been extended to another two more years up to 30<sup>th</sup> June 2015 based on findings and recommendations of project Mid-Term Review jointly conducted by the World Bank(WB) and GOSL.

**Project Progress up to 31 December 2014****Project Financial Progress**

Project has utilized Rs. 8,005 million out of Rs. 8,187 million allocated for the project and reached to 98% financial progress and 87% physical progress by 31<sup>st</sup> December 2014. Despite the project implementation pace and slow achievement in progress in the initial two years, PMU and IAs worked hard to initiate arrangements and process to accelerate the implementation of the project activities to realize the current achievements. As a result project cumulative disbursement, physical outputs and development outcome have shown tremendous improvement. Three main project components are at different stages of implementation progress and their current status is given below.

**Project component wise expenditure as at on 31 December 2014**

Component	Project Allocation (Rs. mn)	Expenditure (Rs. mn)						Cumulative expenditure (Rs. mn)	% of fund utilization against allocation	% of overall physical progress
		2008/2009	2010	2011	2012	2013	2014			
Component-1	6,121	336.2	538.7	1,039.0	1,350.1	1,171.9	1,737.0	6,173.0	101%	91%
Component-2	973	6.8	37.1	113.8	192.9	453.1	205.6	1009.3	104%	77%
Component-3	743	19.3	67.1	38.8	107.4	129.5	154.8	516.8	70%	71%
Component-4	350	81.6	67.3	41.3	35.3	32.5	48.3	306.5	88%	74%
<b>Total</b>	<b>8,187</b>	<b>444.0</b>	<b>710.2</b>	<b>1,233.0</b>	<b>1,685.7</b>	<b>1,787.1</b>	<b>2,145.7</b>	<b>8,005.6</b>	<b>98%</b>	<b>87%</b>

## **Status of Component 1: Improving Dam Safety and Operational Efficiency**

Component-1 of the project constitutes 75% of project funds for rehabilitation of 32 high risk large dams, provision of basic safety facilities for 80 large dams (including 32 high risk dams), environmental and social safeguard management, special studies and capacity development of implementation agencies staff and technical assistance by implementation support consultant.

### **Implementation Support Consultancy-1**

The Implementation support consultant (ISC) has completed inspections, preparation of conceptual design, detailed designs and tender documents for all 32 dams for remedial work. Emergency action plans developed for 8 dams and sample comprehensive surveillance reporting system carried out in 4 dams. Reports on provision of Instrumentation for dam safety surveillance completed for 24 dams and report on provision of Basic Safety Facilities for 80 dams had been submitted.

In addition, 3 proposals on Minipe Canal, Pollgolla & Laxapana tunnels remedial work and 4 TORs for special studies were developed by ISC. Study on reservoir water quality & sedimentation has awarded by the project and is in progress. Proposal for establishment of instrumentation for 05 dams has completed and tenders were called for Supply and Installation. ISC-1 has introduced a computer based maintenance management system for 6 dams and the consultancy contract was awarded by the project. All 32 dam operational and maintenance manuals are finalized.

### **Dam Remedial work**

The project has awarded Rs. 4,481 million worth of remedial and electro-mechanical work contracts to rehabilitate 31 dams.

Up to now, remedial works of 21 dams are completed. The work in most of the remaining dams is more than 75% over and planning to complete before end of April 2015. The current status of 31 dams awarded for remedial works are given in the table below.

**Dams under Irrigation Department**

	<b>Name of Dam</b>	<b>Contract amount (Rs. mn)</b>	<b>Total paid amount (Rs. Mn)</b>	<b>Present status/ Physical Progress</b>
1	Parakrama Samudraya	187.88	154.01	Work completed
2	Inginimitiya	86.97	80.46	
3	Girtale	141.70	135.24	
4	Kaudulla	176.41	162.33	
5	Kantale	118.85	88.36	
6	Usgala	147.67	118.13	
7	Ridiyagama	218.12	198.97	
8	Minneriya	166.24	125.52	
9	Tabbowa	218.17	154.79	
10	Vendarasan	153.22	135.53	
11	Huruluwewa	148.47	145.67	
12	Nalanda	428.96	414.56	95% work completed
13	Nachchaduwa	136.38	97.62	92% work completed
14	Tissa wewa	136.62	83.60	90% work completed
15	Rajangana	181.04	102.08	70% work completed
16	Nuwarawewa	202.71	75.50	1 <sup>st</sup> contract terminated
17	Nuwarawewa	107.00	0.00	overall 52% work completed
	<b>ID sub total</b>	<b>2953.90</b>	<b>2297.75</b>	

**Dams Coming under Mahaweli Authority**

	Name of Dam	Contract amount (Rs. Mn)	Total paid amount (Rs. Mn)	Present status
1	Dambuluoya	29.86	33.13	Completed
2	Kandalama	39.25	53.78	
3	Kandalama-Dambuluoya EMW	75.75	68.31	
4	Bowatenna	67.12	68.91	
5	Chandrikawewa	227.57	205.00	
6	Kalawewa	158.38	139.27	
7	Polgolla	252.62	237.44	
8	Maduru Oya	151.33	132.19	94% work completed
9	Rangenigala	142.15	130.99	87% work completed
10	Rantambe	132.04	87.64	87% work completed
11	Kotmale	142.25	102.17	87% work completed
	<b>MASL sub total</b>	<b>1,418.3</b>	<b>1,269.96</b>	

**CEB Dams**

	Dam	Contract amount (Rs. Mn)	Total paid amount (Rs. Mn)	Present status
1	Canyon	84.61	75.6	Completed
	Laxapana			
	Norton			
2	Castlereigh - Civil work	46.0	27.00	93% work completed
3	Castlereigh - EM work	53.78	21.97	75% work completed
	<b>CEB Total</b>	<b>184.96</b>	<b>125.15</b>	

**NWSDB Dams**

	<b>Dam</b>	<b>Contract amount (Rs. Mn)</b>	<b>Total paid amount (Rs. Mn)</b>	<b>Present status</b>
1	<b>4. NWSDP</b> Kalatuwawa	40.80	38.75	Completed
	<b>Total for all dams</b>	<b>4,597.96</b>	<b>3731.61</b>	



Nalanda dam construction work



Chandrika wewa spill and one access road construction

**Environmental Management Programme**

Project has developed 32 Environmental Management Plans (EMP) for 32 dams identified for rehabilitation and obtained clearance for the plans from the World Bank, Central Environmental Authority (CEA) and Provincial Environmental Authority of North Western Province [PEA (NWP)]. EMPs are being implemented along with the construction programme by contractors and monitored by PMU. Presently implementation of EMPs have been completed in 21 dams. In addition, awareness programmes related to waste management at dam sites were also conducted for dam site officers. Installation of dam environmental management related display boards and waste bins have been completed in 26 dams and contract has been awarded for others work completed dams as well.

## Social Safeguard Management Programme

Among the 32 dams identified for rehabilitation, 7 dams were initially earmarked and finally 5dams, were selected as most critical and sensitive dams which have direct effects on downstream community and properties during the rehabilitation period. In order to mitigate such impact the project hired consultancy firms under Social Safeguard Management programme and prepared Livelihood Support Assistance (LSA) plans for each dam.

- The LSA plan was successfully implemented in Nachchaduwa, Tabbowa, Ridiyagama and Usgala-Siyabalagamuwa.
- This was a joint effort of number of stakeholder agencies (PMU, ID, IMD, SOs, BOC and DSs) and community.
- Total Expenditure is Rs. 205 million.
- The funds saved from LSA programme were utilized to award Contracts for construction of Thabbowa Bridge and Museum with the concurrence of World Bank. About 60% work completed in these two contracts

## Basic Safety Facilities (BSF)

Project hasprocured and distributed Rs. 679 million worth of equipment, machinery, tools and vehicles for 80 large dams to ensure Basic Safety Facilities (BSF) for operation and maintenance of dams. Provision of all Basic safety Facilities are now completedIn addition, Project has supported dam owners to carry out essential emergency repair works in 47 dams and related structures such as access roads, lighting facilities and security facilities.

Current status of BSF are as follows:

BSF (Dam civil work)	Work completed	Total Cost (LKR m)
ID	30	161.14
MASL	3	65.89
CEB	7	25.53
NWS&DB	1	18.53
NP	4	17.08
EP	2	4.63
<b>Total</b>	<b>47 ( All Completed)</b>	<b>292.80</b>

## **Status of Component-2: Upgrading and Modernizing the Existing Hydro-Meteorological Information System**

The main outcome of this component is to establish fully operational HMIS together with functional database at ID and MASL. The implementation strategy of HMIS was awarded a Supply and Installation Contract (SIC) to supply and Install equipment in 122 stations and networking all stations together with ID/ MASL and complete Hydro-Meteorological Information System and also to provide tools/training for IAs staff. Water Resources Planning is another important area which is coming under this component that will be carried out under the supervision and monitoring of ISC.

### **Implementation Support Consultancy-2**

The implementation support consultant (ISC 2) of component 2 completed Inception Report, conceptual design report on HMIS. ISC 2 has also prepared TOR, specifications, bidding documents & evaluation criteria to hire Supply and Installation Consultant (SIC). Supervision and evaluation of HMIS implantation are in progress. Consultant has completed all the activities related to the Ground Water Monitoring.

### **Hydro-Meteorological Information System**

Out of the 122 stations, Up to now the contractor has conducted all site surveys & all site designs have been completed. Out of them Implementation Agencies have approval all site designs. All the work is completed in 22 stations and other installations are in progress.

The two data banks, Hydrology Division of ID and Water Management Secretariat of MASL are fully established and relevant IT equipment have been purchased and Installation of software, networking, and internet arrangement is also completed. Staff was selected for both data centers. Now real time data is receiving from completed stations by hydrology division data bank.



HMIS equipment installation

### **Groundwater Monitoring Network**

Design methodology for core ground Water Monitoring Network for critical pilot areas completed and core groundwater monitoring network established in 7 pilot areas covering 30 Divisional Secretariat Divisions. As agreed with MOU PMU has procured and supplied equipments, machinery, tools, laboratory utensils and chemical to WRB and supported to hire five geologists to undertake monitoring activities.

Awareness programmes were conducted in selected pilot area to educate the community and staff. Prepared base maps, final maps and completed identification of data gaps and new sites for drilling of monitoring wells. 1-D geographical survey was completed in 117 locations and 2-D geophysical survey was completed in 55 locations. 100 well drillings completed and 34 test pumping carried out except 2 wells in Matala pilot area. 1442 water samples checked for normal water quality, 616 samples analyzed for heavy metals. Pesticide analysis of samples also completed and 854 Institute testing has carried out. Leveling of monitoring wells completed in 232 wells.

Restructuring the ground water database of WRB completed. Training has been provided for WRB officials on key subject areas and some national level workshops were also conducted by the WRB.



Levelling of wells in pilot areas

### **Status of Component 3: Multi Sectorial Water Resources Planning**

The purpose of this component is to prepare integrated and comprehensive Water Use Plans for National level, Mahaweli system and Mundeni Aru Basin. Strategic planning Framework, Knowledge base, Modeling/Decision support system, stakeholder consultation, strategic environmental and social assessments and capacity development are key elements of the process of multi sectorial water resources planning.

Consultant has completed all the activities under the Consultancy contract. Project is in the process of preparing Cabinet Memorandum to obtain Cabinet Approval for 3 Water Resources plans.

### **Capacity Development of IA staff**

Project has allocated sufficient amount of funds to strengthen capacity of IAs staff on dam safety, water resources planning, flood forecasting and management, sustainable O&M of dams and related structures, advance designing and planning techniques using modern IT packages, modeling of groundwater and office management. Capacity development programme commenced with inception of the project and several local and foreign technical training programmes were conducted after making need assessment on training.

Up to now project has arranged several capacity development programme on dam safety and water resources planning locally and abroad. Up to now PMU has arranged 55 local training programme for 1324 participants of IAs on different subject areas such as Dam safety management, procurement management, construction management, computer application, GIS, ground water management, software application for engineers, maintenance of electromechanical instruments, environmental assessment and groundwater modeling.

Similarly 203 officers from IAs have been sent abroad under 35 training programme and workshops including countries such as Thailand, India, Philippine, USA, Turkey, Brazil, Japan, China, Vietnam, France and Sweden.

Up to now project has spent Rs. 34.15 million for local training and Rs 56.78 million for foreign training. In addition several awareness programme and workshops were conducted for stakeholders by utilizing Rs. 10 million.

## c) Moragahakanda - Kaluganga Development Project

Moragahakanda Kaluganga Development Project (MKDP) has been commenced on 25<sup>th</sup> January 2007 with the scope to provide irrigation and drinking water to 82,000 ha of dry lands. This is one of the main multi-purpose development projects of the country, which is expected to uplift the living standards of Anuradhapura, Polannaruwa, Trincomalee and Matale districts. Around 5000 ha of new lands for agriculture will be open up and developed under this project in addition to the 25MW hydro power generation.

### Expected Main Benefits

- Increase the agricultural Production by 123,000 tons annually. In monetary terms increase the national income by 4 billion rupees.
- Increase the fish production by 4700 tons annually. In monetary terms 220 million Rupees.
- Annual cost saving due to hydro power station will be around 330 million Rupees.
- Enhancement of eco-tourism.
- Reduction of flood damages in Manampitiya and Somawathiya areas.
- Infrastructure development in new settled and existing villages and towns.

Moragahakanda Kaluganga Development Project is implemented by Ministry of Mahaweli Development and Environment with Mahaweli Authority of Sri Lanka. Total expected cost is US \$557.4 Million. This project contains the following main elements:

- Moragahakanda Reservoir headwork with 25 MW Power House
- Kaluganga Reservoir headwork
- Land Acquisition and Resettlement of the affected families (2738 families)
- Social and Irrigation infrastructure development in downstream areas under Kaluganga Reservoir (4000 Ha – System F) and Kaudulla left bank canal extension areas (2000 Ha – System D)
- Implementation of Environment mitigation activities
- Improvement of Agriculture productivity and water utilization through the demonstrated model farms.

## Moragahakanda Head works

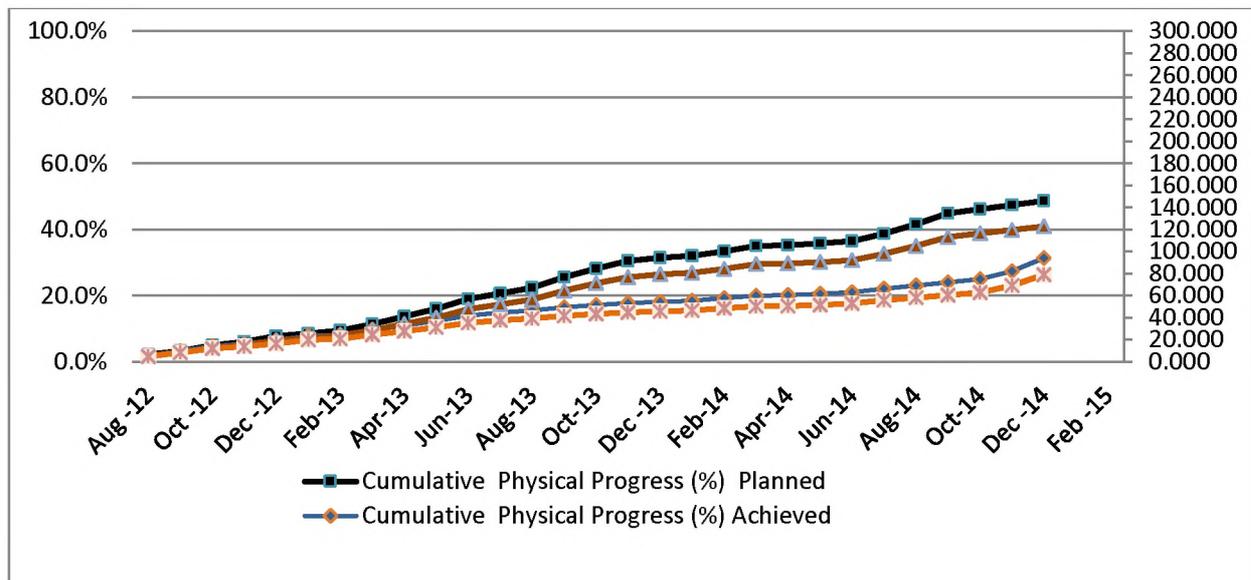
Funding Agency	- China Development Bank
Contractor	- Sinohydro Cooperation Limited
Contract value	- US\$ 214,456,888 ( 85% from CDB ) - US\$ 37,845,333 ( 15% from GOSL )
Total	- US\$ 252,302,221
Contract period	- 4 Years
Start date	- 27 .07. 2012
Completion date	- 26 .07.2016

This contains a main dam and 2 saddle dams as follows;

	<u>Height (m)</u>	<u>Length (m)</u>	<u>Current status</u>
Main dam (Rock filled) corporation	61.0	465	In progress by Sinohydro
Saddle dam 1 (RCC) corporation	50.5	365	In progress by Sinohydro
Saddle dam 2 (earth fill)	21.5	275	Completed by force account

### Overall Progress up to December 2014

Physical	- 31.40%
Financial	- 79.04 US\$ Mn.



### Saddle Dam I

- Revised Detail Design completed
- Dam foundation, Spillway Excavation completed
- D/S Diversion & Discharge Canal Excavation completed
- U/S Diversion & Approach Canal Excavation completed



### Main Dam

- Main Dam Excavation in Right Bank & Left Bank is in progress



**Saddle dam 2** is 100% completed.



### **Kaluganga Reservoir Head Works**

Funding Agencies	- Saudi Fund for Development (SFD) Kuwait Fund for Arab Economic Development (KFAED) OPEC Fund for International Development (OFID)
Contractor	- Sinohydro Cooperation Limited
Contract Value	- US \$ 113,494,569
Contract Period	- 4 years 9 months
Start Date	- 02 .04 . 2014
Completion Date	- 12 .12 . 2018



**This contains a main dam and a saddle dam as follows;**

	<u>Height (m)</u>	<u>Length (m)</u>
Main dam (rock fill)	68	568
Saddle dam (rock fill)	28	719

### **Current Status**

- Surveying completed
- Buildings for the office, accommodation complex, Storage yards, warehousing, laboratory, incinerator and refuse disposal Unit buildings are completed
- Buildings for crushing Plant is in progress
- Land clearing for Main Dam area is completed
- Main dam excavation is in progress

### **Re-settlement Activities**

As per the socio economic survey 2738 families will be affected due to both Moragahakanda & Kaluganga reservoir headwork projects. Resettlement plan is already prepared and it is distributed among the affected families. Land acquisition work is in progress. Initially, families who are living closer to dam sites & barrow areas were resettled in Thorapitiya unit and Guruwela unit areas. (216 families in Moragahakanda and 68 families in Kaluganga) Another 127 families resettled by the end of 2014.

Totally 564.06 Mn Rupees paid as compensation to the resettled people. They each have been given 1.5 acre land for irrigation purpose in addition to residential land of ½ acre. Further we implemented food ration programme in Thorapitiya, Thalagoda and Karandhamulla areas.

### **Social and Irrigation Infrastructure Development**

This projects targets to resettle 2738 families in six newly established units called Maoya, horapitiya, Wellawela, Guruwela, New laggala and Heeratiyaoya. As per the purpose of this project is to uplift the living standards of the people it covers plenty of social development activities such as buildings for schools, corporative shops, unit offices, Divisional Secretariat office, post offices, health centers, police station etc and the road facilities, water supply, electricity supply, elephant corridor etc.

### **BUILDINGS**

Administrative Buildings Wellewela - 27 buildings completed

Administrative Buildings Thorapitiya - 4 buildings completed

Administrative Buildings Maoya Unit - 3 buildings completed

### **Service buildings under Wellawela Block - 7 completed, 12 buildings in progress**

Administrative BuildingsGuruwela -27 buildings completed

Administrative Buildings NewLaggala Town Centre - 29 buildings completed

Administrative Buildings HeeratiyaOya - 3 buildings in progress

### **Service buildings under Guruwela Block - 20 completed, 6 buildings in progress**

Administrative Buildings Bisopura - 16 completed 1 building in progress

Administrative Buildings Dahamwewa - 3 buildings in progress

### **Service buildings under Medirigiriya– 3 completed, 3 buildings in progress**

## **ROADS**

Main Roads – 46 Km (42 km completed up to sub gravel base, ABC layering 3 km completed, Carpeting 4.5 km completed)

Market Roads – 20 km (completed up to sub gravel base)

Hamlet Roads – 34.6 km (completed up to sub gravel base)

### **Tanks**

- 10 Main tanks completed. 3 level crossing tanks under construction.
- Construction of village Tanks (32Nos) - 4 Completed, 1 Tank -50% in progress

### **Canals**

- D & SD Canals – 24.762 km completed
- F & SF Canals – 61.284 km completed
- Branch Canal – 2.5 km completed
- Main Canal – D1Canal – 8.57 km is in 83% progress

## **Environmental Mitigation Activities**

Environmental Mitigation activities are much more important when we are establishing new living facilities. We focused to improve the protection of the trees, animals and aquatic resources. We get together with IUCN, Forest Department and Wild life Department to improve the mitigation activities such as

- Demarcation of Buffer zone
- Forest Conservation Activities
- Wildlife Conservation Activities

- Biodiversity Conservation
- Archeological Conservation
- Catchment Development Activities
- Construction Related Mitigated Activities
- Environment Awareness Programs

### **Model Farm**

We extend our activities to improve the Agriculture productivity and water use efficiency by developing demonstrated model farms. Currently we have 2 farms named Niraviya farm (Thambuttegama) and Guruwela model farm. We are using latest technology to bring the best production rate. We generate income by this farms.

## **d). Climate Resilience Improvement Project (CRIP)**

### **Project Background**

Sri Lanka is one of the most climate-vulnerable countries in the world, and is expected to become even more so as a result of climate change. Climate change and variability have already had an impact on the lives and livelihoods of people living in coastal areas and dry zone areas of the country during past few decades. Extreme variability of rainfall is the main determinant of adverse climate change which causes adverse consequences for human lives. Floods, tropical cyclones and droughts are becoming more frequent and will be more severe in the coming years and decades. These changes are threatening the significant achievements of economic and social development in Sri Lanka.

Therefore, Climate Resilience Improvement Project (CRIP) is formulated jointly by GOSL and WB as a comprehensive programme to reduce the adverse impact of climate change and to adopt the stock of infrastructure to extreme climate shocks. The climate resilience encompasses a dual function, to absorb shock as well as to self-renew.

The project is executed by Ministry of Irrigation and Agriculture with the financial assistance of International Development Agency (IDA) - World Bank and implemented by Department of Irrigation (ID), Mahaweli Authority of Sri Lanka (MASL), Road Development Authority (RDA) and National Building Research Organization (NBRO) with coordinating, facilitating and monitoring function played by PMU established under the Ministry to increase resilience by financing physical investment to address short term infrastructure weakness together with a contingent credit facilities to safeguard against immediate fiscal impact of a disaster.

### **Project Development Objective**

The Project Development Objective (PDO) is to reduce the vulnerability of exposed people and assets to climate risk (hydro meteorological risks: flood, drought and landslide) and to improve Government's capacity to respond effectively to disasters.

### **Project Components**

The project is mainly focused to establish a process that would built a more climatic resilient economy since current understanding of multispectral impacts of climate and flood & drought

modeling and scenario analysis are not adequate at present. In addition project supports to implement urgent climate mitigation investments required to ensure the short-term integrity of flood control and irrigation infrastructure, transport network and critical education facilities at risk.

### **Project Financing**

The project is completely financed by WB-IDA for 4 project components allocating USD 110 million equivalents to Rs. 14,382 million and the Government of Sri Lanka (GOSL) is allocated USD 1.8 million equivalents to Rs. 235 million for payment of project allowance for staff involved in implementation of project under each project implementing agency.

### **Project Financial Status**

Project has been utilized Rs 132 million out of Rs 14,617 million allocated for the project and achieved 60% financial progress and 3% physical progress by 31<sup>st</sup> December 2014. Up to now majority of funds has been utilized for rehabilitation works contract awarded under component 2 of the project followed by component 3 project management. The Government has allocated Rs 220 mn in 2014 for the project after signing the financial agreement of the project with IDA-WB with an intention to award more rehabilitation works under community procurement and national shopping categories to expedite the urgent risk mitigation works under Department of Irrigation and Mahaweli Authority of Sri Lanka (MASL). However, time taken to carry out investigation, preparation of estimates and signing of agreement with Farmer organization have contributed for delay in awarding of contracts thus incurred only Rs 132 mn which is 60% financial progress against the annual allocation of 2014.

However, more works contracts packages under NCB category are planned to be awarded by ID, MASL, RDA and NBRO as per the procurement plan in 2015 and PMU is also in a process of awarding several number of goods and consultancy packages in 2015 to expedite the project implementation. As such more expenditure would incur in 2015 and PMU has prepared budget estimates of Rs 3985 mn for 2015 taking account of committed expenditure for already awarded contracts, pipeline expenditure and expenditure that would incur for new contracts which exceeds the treasury allocation and request will be made to increase the allocation for 2015.

## **Status of project components:**

### **Component 1 – Development of Basin Investment Plans**

The preparation of basin investment plans and training of officers assigned for this component are largely depend on hiring and mobilization of international risk modeling experts. In this regards, Technical Working Group (TWG) appointed by secretary of Ministry of Irrigation and Water Management (former ministry) to develop TOR and review proposals submitted by bidders to hire a consultant. Accordingly TWG has prepared the TOR and finalized it in July 2014 after getting comments from WB. PMU has obtained EOIs from international firms by advertising the EOI invitation in web sites and newspapers in August 2014. In response to the published advertisement, 27 firms have submitted EOIs and among them 6 have been short listed based on evaluation criteria developed by TWG. Preparation of bidding document is completed in December 2014 and final review of the document is being done before issuing the RFPs to qualified firms.

In addition survey department assistance is obtained to develop comprehensive TORs for hiring of a firm to carry out LIDAR survey and Digital Elevation models. TWG finalized TOR and bid document for LIDAR survey. A separate TOR is developed to hire a firm to carry out aerial photo graphs with 20 – 30 cm accuracy and preparation of survey bidding document is in progress. These three contracts are necessary to award prior to the hiring of an international consultant to carry out flood and drought modeling in order to develop basin investment plans.

PMU has already procured Rs 30 million worth GIS packages to be used by staff assigned for the component-1 from IAs to use for analyzing hydro-meteorological data for flood and drought risk modeling.

The capacity development and procurement of equipment under component-1 will be decided after hiring of a international consultant.

The office space for component -1 is allocated in ID premises at Jawatte previously occupied by SMEC consultant hired under DSWRPP and refurbishment is being made to wash room. The international consultant will occupy this premises and DPD will overlook the unit.

### **Component 2 – Increasing Climate Resilience of Infrastructure**

#### **Sub Component 2.1 - Flood & drought Mitigation;**

In order to attend for immediate risk mitigation physical improvement to hydraulic infrastructures, ID and MASL have carried out preliminary investigation on damages occurred due to flood and drought

occurred during 2010 to 2013 to prepare designs based on the analysis done with local level flood and drought data to develop some sort of flood and drought models before estimating the cost of rehabilitation works. In this regard time series hydro-meteorological data are used to calculate probability of occurrence of floods and drought and their magnitude and vicinity to develop designs to resilience of hydraulic infrastructures. However, huge damages occurred to hydraulic infrastructure as a result of floods occurred in last December 2014 is being estimated by ID and MASL and those structures are not included in the rehabilitation packages identified under ID and MASL.

#### **Physical improvement of Hydraulic infrastructures of ID:**

ID has identified 421 packages to made improvement to mitigate risk on hydraulic infrastructure due to flood and drought. Among them Rs 50 mn worth 35 Community procurement (CP) packages are already awarded. In addition 12 is awarded as national shopping (NS) packages amounting to Rs 53 mn. Most of contracts are awarded to improve canal bunds, widening of canals, improvement to gates and other structures.

Among the 166 NCB packages, bid evaluation completed for 11 NCB packages and 8 PC packages. Bid documents are prepared for 26 National competitive bidding (NCB) packages and one NS package.

#### **Physical improvement of Hydraulic infrastructures of MASL:**

MASL has identified 66 works packages to improve physical condition of hydraulic infrastructure to resilience for future flood and droughts. Total estimated value of 66 packages are Rs 1373 mn . Among them 30 packages are identified under NCB category, 34 packages as CP and only one package is as direct contract to Ceylon Electricity Board. Up to now, Rs 787 worth 46 packages are awarded and paid Rs. 70 mn as part payments to contractors. Among them 29 CP packages worth of Rs 38.7 mn are awarded and paid Rs 18 mn as part payment to contractors. Up to now 16 CP packaged completed and 13 CP packages are ongoing. Among the rest of awarded packages, 23 packages are awarded as NCB with contract value of Rs 748.9 mn and 17 CP packages with contract value of Rs 17.6 mn.

#### **Sub Component 2.2 – Ensuring Transport Continuity – Road and Bridge Improvement**

In order to avoid interruption to transport continuity due to landslides and flood, RDA has identified 15 rehabilitation packages including 8 packages for bridges and 7 packages for landslides to mitigate risk due to landslides and floods. Total estimated value of 15 packages is Rs 3087 mn. Up to now 6

NCB packages are awarded amounting to Rs 1086.8 mn including 3 packages for bridge improvements with contract value of Rs 432 mn and 3 for slope stabilization in landslides with contract value of Rs 654 mn. Up to now Rs 92.5 mn paid as part payment to contractors.

Among the rest of packages for bridge improvement, one is ready to award and other four are at preliminary investigation and design preparation stage. Another four packages are at preliminary investigation and design preparation stage for slope stabilization.

### **Sub Component 2.3 -School Safety – Landslide Mitigation**

NBRO has identified 18 school premises as most vulnerable sites for landslide and 7 rehabilitation packages under NCB category has been prepared to award contracts. Up to now only one package in Dharmaraja collage is ready to award to stabilize the slopes amounting to Rs. 105.6 mn.

Bid preparation for improvement of slope stability of Galkanda Kanishta Vidyalaya, Molagoda Sri Piyadassi Vidyalaya, Mahamaya Girls collage, Hillwood Collage and Gothami Girls collage premises are in progress.

### **Component 3 – Implementation Support**

#### **Initiatives taken by PMU:**

Project Management Unit (PMU) has extensively involved to develop detailed cost estimates for entire project, project work plan, procurement plan and annual action plans for all project components and sub components having discussions with project implementing agencies by taking in to consideration of their existing capacities and available resources for project implementation. Project procurement plan is developed in such a way to have separate packages for goods, works and consultancies to be procured under the project for implementation of the project. Project procurement guidelines and financial manuals are shared with all project implementing agencies and PMU has arranged awareness and training workshops for project implementing agency's staff on procurement, financial management, contract management and preparation of tender/bidding documents.

PMU has given proper instructions on contract management especially for ID and MASL staff based on the insights and experience gained from contracts awarded for goods, services and works under DSWRPP.

PMU established under DSWRPP is fully geared to carry out initial preparatory works to take off the project implementation to the present pace after devoting staff time and maximum utilization of

resources with the help of IAs. As a result, project procurement plan is fully developed and being implemented. TWG is established under component-1 to develop TOR in order to hire an international consultant to develop basin investments plans. In the process of developing 9 basin investment plan, consultant is obligatory to deliver several intermediate outputs as per the TOR. TWG is extended their services to review and recommend payment for such deliverables to realize the development of final basin investment plans.

Environmental Assessment and Management Framework (EAMF) prepared by the World Bank is fully adopted by project. PMU has arranged awareness programme for ID and MASL officers in the process of doing Environmental Screening using standard formats prepared by PMU and initial environmental screening is done for Irrigation and Mahaweli packages identified for physical improvement under the project using the Environmental Screening formats. Following the screening process, detail Environmental Assessments is done for 7 Irrigation schemes and Environmental Management Plans are developed for all works packages identified under four IAs and arrangements are made to incorporate such EMPs in to bid documents of each work package.

Since project is not undertaken any new construction, it is hard to find negative social impacts due to rehabilitation works of existing hydraulic infrastructures. However, awareness programme is conducted for ID and MASL officer to get aware on social safeguard specified under OP/BP 4.12 involuntary resettlement. Some sort of social issues are arisen due to proposed spill tail canal development in Nuwarawewa and matter is already discussed with the ID and necessary action are being taken.

PMU has arranged capacity development programme to train 122 officer nominated by four IAs on bid evaluation as per WB guidelines and another awareness programme is conducted on social environmental management of the project for 28 officers of ID.

Up to now 6 packages are awarded for procuring of goods. One package is ready to award for procuring of 45 vehicles for IAs including PMU. One contract package is ready to award for procuring office equipment for IAs. Another one package is ready to award for procuring of Quality Control equipment, laboratory equipment, survey equipment and Monitoring Equipment for MASL/ID. One package is awarded to procure GIS packages for IAs under component 1 of the project and being used for project work.

### **e) Lower Malwathu Oya Reservoir Project**

Proposed Malwathu Oya Reservoir is located across Malwathu Oya at Kappachchi which lies in Anuradhapura and Vavuniya Districts. This project envisages construction of 209 MCM capacity reservoir, 3,590 m long earth dam, Radial Gated Spillway, Left Bank, Right Bank and River Sluices, Canal systems to new settlement area and power house. Stored water at proposed reservoir is released through the river sluice to the Malwathu Oya and picked up at Tekkam Anicut (24 Km d/s from Proposed Malwathu Oya Reservoir). From Tekkam Anicut 500 Cusec and 250 Cusec capacity Right bank and Left bank canals respectively convey water to irrigate 24,450 acres and 6,230 acres under existing Giant's tank and Akitamuruppu tank respectively. 2,000 acres of new irrigable lands just downstream of the Reservoir is proposed for introducing the commercial farming and 675 acres of lands identified for paddy cultivation. Other expected benefits are, provide 2.0 MCM of domestic water annually for the new settlers, generation of 4.28 GWH Hydro power energy annually and improvement of agricultural activities, livestock development and other infrastructure development. Total Project Cost is Rs10, 000 Million.

Presently, the feasibility study has already been completed while more of the EIA works has been completed. Social Study has also been completed.

The allocation for 2014 was Rs 3 Mn and at the end of year expenditure was Rs.2.76 Mn.

### **f) Thalpitigala Reservoir Project**

The Thalpitigala Reservoir is located about 3 km upstream of existing Bathmedilla anicut at a location near the village Hunuketiya (Dematapelessa) which will lead to enhance regulation and management of Uma Oya basin water resource ensuring environmental flow, irrigation requirement at Minipe Anicut, and irrigation requirement at Bathmedilla Scheme. It is envisaged to construct a 46 m high 15.83 MCM capacity reservoir across Uma Oya at Thalpitigala and planned to release 20 MCM water to Bathmedilla Scheme to improve irrigation facilities to 668 ha of paddy lands. In addition to that it is expected to generate 51.3 GWh of electrical energy. Total Project Cost is Rs 22,960 Million.

Pre-feasibility has been completed and proposals to design and constructions submitted by China

Synohydro Company was being studied. It is scheduled to commence constructions after EIA.

The allocation for 2014 was Rs 2.97 Mn and at the end of year expenditure was Rs.2.97 Mn.

### **g) Gin Nilwala Diversion Project**

The project is proposed to divert excess water from Upper reaches of Gin – Nilwala to South East dry Zones (SEDZ) through a series of weirs, transfer tunnels and open canals with associated structures.

Accordingly Gin Ganga basin water divert to Kotapolaoya in Nilwalaganga basin after generating power at Kotapola power station. Then Kotapola to Ampanagala at Siyabalangoda Oya in Nilwala Ganga and then to existing Muruthawela tank and finally to Chandrika wewa under the Stage 1. Under stage II, it has been proposed to divert water in Walawe basin to the Malalaara basin by constructing a weir at upstream of Walawe reservoir.

The diverted water from Gin and Nilwala basin during South West monsoon period is to be transferred to meet the irrigation deficit in Muruthawela and Kirama Oya systems and excess water to store in Muruthawela & Chandrika wewa as presently these reservoirs get water during North east monsoon period only. Then the surplus water in Walawe basin is to be transferred to improve irrigation facilities and to provide drinking, industrial water requirement in Hambantota district.

The project is considered as multi sector development project with provision of drinking water, meeting irrigation deficit and quality improvement of existing irrigation systems, introducing commercial agriculture development and provision of industrial water requirement of Greater Hambantota Development Area. After implementation the project will provide annually 154 MCM water for industrial development in Greater Hambantota area, 124 MCM of drinking water for 25 Divisional Secretariats areas in Galle, Matara, and Hambantota districts, 111 MCM of water for existing agricultural lands of about 40,000 ha in Muruthawela LB, Urubokka Oya (Udukiriwela), Kirama Oya (Muruthawela RB), Walawe Ganga and Malala Oya and 8500 ha of new agricultural lands including commercial agriculture development.

In addition to that the project improves about 90km of roads in and around the project area connecting major road networks on either side of three weir sites and with construction of new road bridges

incorporating to the proposed weirs and it is expected to produce 66 Gwh/yr from power plant at Kotapola and 6.5 GWh/yr from power plant at Muruthawela.

Commercial Agreement has been signed with a China Company for implementing the project under lump sum fixed price for US\$ 690 million in November 2014. Advance payment of Rs. 1000 million paid in December 2014.

## 6. Planning for Future Water Resources Development Projects

To achieve the development targets set by Mahinda Chinthana Policy Framework for the Water Resources Development Sector, it need to identify development potential of water resources ,framing project proposals pre- feasibility and feasibility studies , EIA studies and detailed designs ,which need long time and well trained professionals. As commonly practiced in most other sectors, if these studies are awarded to foreign consultancy firms it would cost large sums of money. However since Sri Lankan Engineers and other experts have long term experience in water resources development sector, it is considered more acceptable and less expensive option to get these studies done. Irrigation Department as well as Sri Lanka Mahaweli Authority is experiencing shortage of staff to cater for the demand of accelerated development drive in the sector, Ministry of Irrigation and Water Resources Management has established a special water resources planning cell to expedite the panning process. It was quite difficult to find sufficient staffs for this unit from permanent officers, services of local experts were obtained on contract basis and through semi government consultancy firms. Though acquisition of the necessary trained and experienced staff was a formidable challenge, it was able to achieve a remarkable progress in planning process and large number of projects could be brought up to implementation level saving large amount of money to the national economy.

### Feasibility Programme under Head 152 and works done in 2014

#### Projects

#### works done in 2014

- |   |   |
|---|---|
| 1. Kivul Oya                                  | Hydraulic structural design of Head Works structures  |
| 2. Mahaweli left Bank Lower Basin Development | Pre Feasibility Study carried out to augment Janaranjana wewa to provide water to Thinneraweli area in Kinniya Divisional Secretariat Division while improving to cascade systems in downstream area. Pre – feasibility report completed. |
| 3. Randiwela Reservoir in Mi Oya Basin        | Pre - feasibility study completed to convert Randiwela Reservoir across Maha Oya to enhance the base flow of Maha oya during dry weather while Transferring additional water to Deduru Oya Basin by constructing a                        |

- Reservoir across Kospothu Oya. Pre – feasibility report to be furnished.
4. Ranalla Reservoir across BaduluOya
- Pre feasibility study completed to augment Badulu Oya anicut scheme during dry weather by constructing a reservoir at upstream of Badulu Oya Anicut across Badulu Oya. There are 02 stages and at the 2<sup>nd</sup> Stage it is proposed to transfer additional water to Loggal Oya with the raise of Dam while generating power using 2/3.9 KW. Pre – feasibility report completed.
5. Parangi Aru Reservoir
- Conceptual design report for extending the existing Kurai tank across a tributary of Parangi Aru until crossing the main river was completed and submitted to DSWRP Project office as this was included under world Bank project.
- Desk Studies for feasibility study such as hydrological operation study, spill study, cost and Economic benefit analysis completed. Feasibility couldn't completed as further geological studies to be carried out.
6. Pekkulam Reservoir
- Conceptual design for constructing a reservoir across Kiri Oya at up stream of existing breached dam to avoid water flow into Elahera – Minneriya – Yoda Ela (EMYE) was started.
- Hydrological study completed.
7. Wee Oya Reservoir
- Feasibility study started to construct a reservoir across Wee Oya at Malapola to augment Ambathale Water supply intake during day weather. Hydrological design / Study completed.

## **7. Performance of Projects/ Programmes under implementing Agencies**

### **1. Irrigation Department**

#### **Introduction**

The Irrigation Department with over a century of experience as a pioneer organization responsible for most of the development works in the irrigation sector, looks optimistically towards the development envisage in the water sector at the dawn of the new millennium.

#### **1.1 Vision**

To optimized the returns of the water resources so as to ensure sustainable economic and social development while safeguarding the environment of the country. Following the words of the King Parakramabahu the Great of “Not allowing a single drop of water falling from this sky to sea without serving the eco system and mankind”.

#### **1.2 Mission**

To harness, develop, conserve, regulate, allocate and manage water resources in the country to secure &enhance the returns it produces, directly in the sphere of agriculture and indirectly in other spheres such as environment domestic, industry and power in collaboration with other organizations.

#### **1.3 Objectives**

The main objectives of the Irrigation Department are as follows;

- a) Development of land and water resources for irrigated agriculture, hydro power, flood control, domestic usage, industrial usage and aquaculture development, giving priority to the environmental factors.

- b) Provision of Lift irrigation, irrigation drainage and salinity exclusion facilities for cultivable lands in irrigation and drainage Projects. Provision of salinity exclusion schemes.
- c) Provision of drinking water, flood protection and drainage facilities to lands affected by floods.
- d) Alleviation of poverty of the rural farming community by increasing their farm income and raising their standard of living.
- e) Management of Water economically for sustainable agriculture and other uses.
- f) Productivity enhancement of land and water in major/medium/inter-provincial minor irrigation schemes.
- g) Integrated water resources management and participatory management in major /medium. inter provincial minor irrigation systems.
- h) Integrated water resources management and participatory management in river basins assigned to ID

## **1.4 Functions of the Irrigation Department**

The functions of the Irrigation Department arising from the objectives are as follows;

- a. Preparation of Master Plan for development of the different river basins for the optimum utilization of land and water resources giving priority to the environmental factors.
- b. Project formulation and detail designs of irrigation, hydro-power, flood control and reclamation Projects.
- c. Construction of irrigation and settlement projects for the conservation, diversion and distribution of water under gravity and lift Irrigation to new and existing land for cultivation by farmers for an enhanced food crop production and to upgrade their living conditions.
- d. Construction of drainage, flood protection and salt water exclusion projects for the protection of land to enable the cultivation of such lands with rainfall for food crop production with minimized risk.
- e. Providing drainage and flood protection facilities to minimize or mitigate the damages caused by floods.
- f. Operation, maintenance, improvements, rehabilitation and water management for medium and major irrigation schemes. drainage and flood protection scheme and salt water exclusion schemes for optimum productivity enlisting the participation of beneficiaries. Catering of water for Inter sectorial use, domestic, industrial use and environmental requirements. Construction and maintenance of conservation reservoirs.
- g. Maintaining and upgrading the water infrastructure including dams for sustainable water supply to agriculture and domestic purposes.
- h. Research in Hydraulics, Hydrology, Soil Mechanics, Engineering Geology, Geographic Information System (GIS), Engineering Materials and Land Use as applied to Water Resources Development Projects.

- i. Human resources development for optimum utilization of human resources.
- j. Operation and maintenance of financial management system, accounting, reporting, auditing systems of irrigation department in accordance with the financial regulation of the government of Sri Lanka.
- k. Providing consultancy Services to government department, statutory boards/corporation, public and private institutions and individuals; in the fields of Water Resources Development; Foundation Engineering; Quality Control of Earthwork and Concrete; Hydraulic Model Testing and Land Use Planning

## 2.0 Cultivation Performance of Irrigation Department

2.1 District – wise performance during Maha 2013/14 and programme of Yala 2014 are given in the Table below:

**Table 2.1. 1 : Major Irrigation Schemes –Cultivation Performance Maha 2013/14**

No	District	Gross Extent (ha)	Cultivated Extent (ha)			District Percentage
			Paddy	OFC	Total	
1	Ampara	57,846	57,846	0	57,846	100%
2	Anuradhapura	27,006	17,090	2,219	19,309	72%
3	Badulla	7,908	6,080	1,768	7,848	99%
4	Batticaloa	20,198	17,851	0	17,851	88%
5	Colombo	688	648	8	656	95%
6	Gampaha	2,758	2,351	0	2,351	85%
7	Rathnapura	1,776	1,750	26	1,776	100%
8	Galle	2,164	476	8	484	22%
9	Matara	6,311	5,104	0	5,104	81%
10	Hambantota	23,543	21,544	770	22,314	95%
11	Kandy	8,048	6,236	358	6,594	82%
12	Nuwara Eliya	654	131	523	654	100%
13	Matale	1,677	1,677	0	1,677	100%
14	Kurunegala	11,915	9,222	40	9,262	78%
15	Monaragala	3,523	3,524	0	3,524	100%
16	Polonnaruwa	34,036	34,036	0	34,036	100%
17	Puttalam	5,061	1,612	490	2,102	42%
18	Trincomalee	20,023	16,646	0	16,646	83%
19	Vavuniya	1,674	12	0	12	1%
20	Mannar	12,912	495	0	495	4%
	Total	249,722	204,329	6,212	210,541	84%

**Table 2.1.2 : Major Irrigation Schemes –Cultivation Performance Yala 2014**

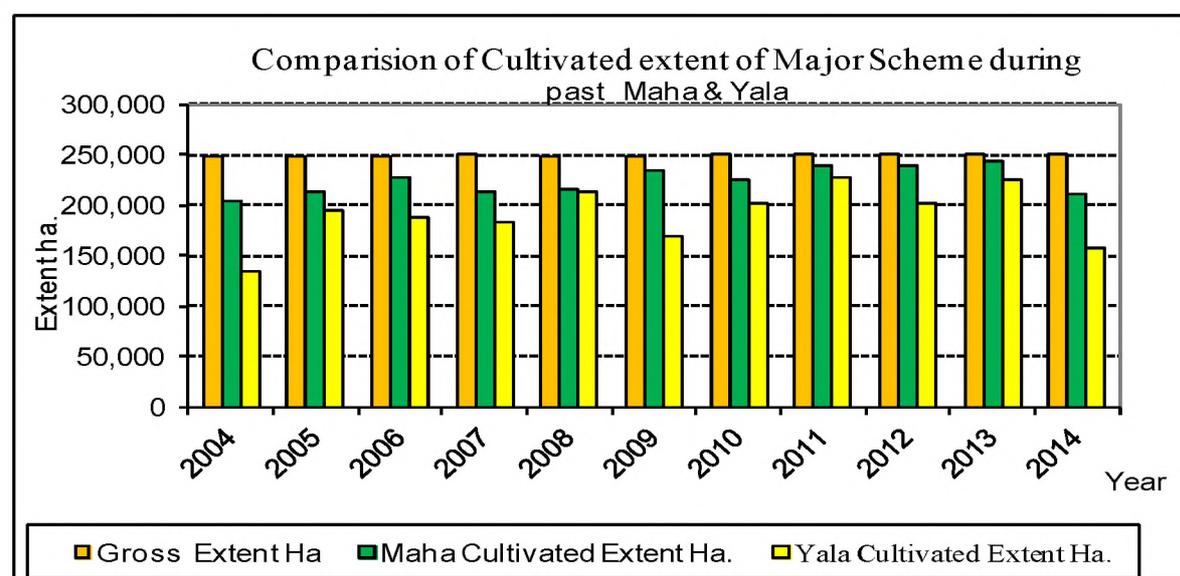
No	District	Gross Extent (ha )	Cultivated Extent (ha)			District Percentage
			Paddy	OFC	Total	
1	Ampara	59,246	35,470	690	36,160	61%
2	Anuradhapura	27,006	9,814	3,378	13,192	49%
3	Badulla	7,908	2,180	3,203	5,383	68%
4	Batticaloa	20,198	15,532	21	15,553	77%
5	Colombo	688	364	6	370	54%
6	Gampaha	2,758	2,189	0	2,189	79%
7	Rathnapura	1,776	1,607	54	1,662	94%
8	Galle	2,164	544	0	544	25%
9	Matara	6,311	3,819	10	3,829	61%
10	Hambantota	23,543	21,096	769	21,865	93%
11	Kandy	8,048	6,941	936	7,877	98%
12	Nuwara Eliya	654	131	523	654	100%
13	Matale	1,677	0	340	340	20%
14	Kurunegala	11,915	8,206	967	9,173	77%
15	Monaragala	3,523	1,640	355	1,995	57%
16	Polonnaruwa	34,036	18,819	589	19,408	57%
17	Puttalam	5,061	4,146	0	4,146	82%
18	Trincomalee	20,023	9,573	0	9,573	48%
19	Vavuniya	1,674	322	0	322	19%
20	Mannar	12,912	2,211	0	2,211	17%
	Total	251,122	144,603	11,842	156,446	62%

**Table 2.1.3 : Medium Irrigation Schemes –Cultivation Performance Maha 2013/14**

No	District	Gross Extent (ha )	Cultivated Extent (ha)			District Percentage
			Paddy	OFC	Total	
1	Ampara	1,328	1,328	0	1,328	100%
2	Anuradhapura	10,916	4,444	0	4,444	41%
3	Badulla	1,300	1,047	233	1,280	98%
4	Batticaloa	1,483	1,290	0	1,290	87%
5	Colombo	177	119	1	121	68%
6	Gampaha	2,090	1,582	0	1,582	76%
7	Kalutara	142	92	0	92	65%
8	Rathnapura	668	637	2	640	96%
9	Galle	178	17	0	17	10%
10	Matara	1,688	1,688	0	1,688	100%
11	Hambantota	1,270	985	0	985	78%
12	Kandy	1,101	822	96	918	83%
13	Nuwara Eliya	681	475	40	515	76%
14	Matale	1,790	1,557	45	1,602	89%
15	Kurunegala	2,994	1,994	42	2,036	68%
16	Monaragala	3,596	2,778	2	2,780	77%
17	Polonnaruwa	581	383	11	394	68%
18	Puttalam	1,569	725	0	725	46%
19	Trincomalee	243	243	0	243	100%
20	Vavuniya	1,056	410	0	410	39%
	Total	34,853	22,617	471	23,088	66%

**Table 2.1.4 : Medium Irrigation Schemes –Cultivation Performance Yala 2014**

No	District	Gross Extent (ha )	Cultivated Extent (ha)			District Percentage
			Paddy	OFC	Total	
1	Ampara	1,328	642	0	642	48%
2	Anuradhapura	10,916	1,856	0	1,856	17%
3	Badulla	1,300	283	734	1,017	78%
4	Batticaloa	1,483	1,047	4	1,051	71%
5	Colombo	177	101	33	134	76%
6	Gampaha	2,090	1,624	0	1,624	78%
7	Kalutara	142	106	0	106	75%
8	Rathnapura	668	413	44	457	68%
9	Galle	178	22	0	22	12%
10	Matara	1,688	1,334	12	1,347	80%
11	Hambantota	1,270	617	121	738	58%
12	Kandy	1,101	396	442	838	76%
13	Nuwara Eliya	681	379	272	652	96%
14	Matale	1,790	380	211	591	33%
15	Kurunegala	2,994	2,201	2	2,203	74%
16	Monaragala	3,596	1,365	120	1,486	41%
17	Polonnaruwa	581	144	18	162	28%
18	Puttalam	1,569	1,233	16	1,249	80%
19	Trincomalee	243	57	0	57	23%
20	Vavuniya	1,056	171	0	171	16%
	Total	34,853	14,371	2,031	16,402	47%

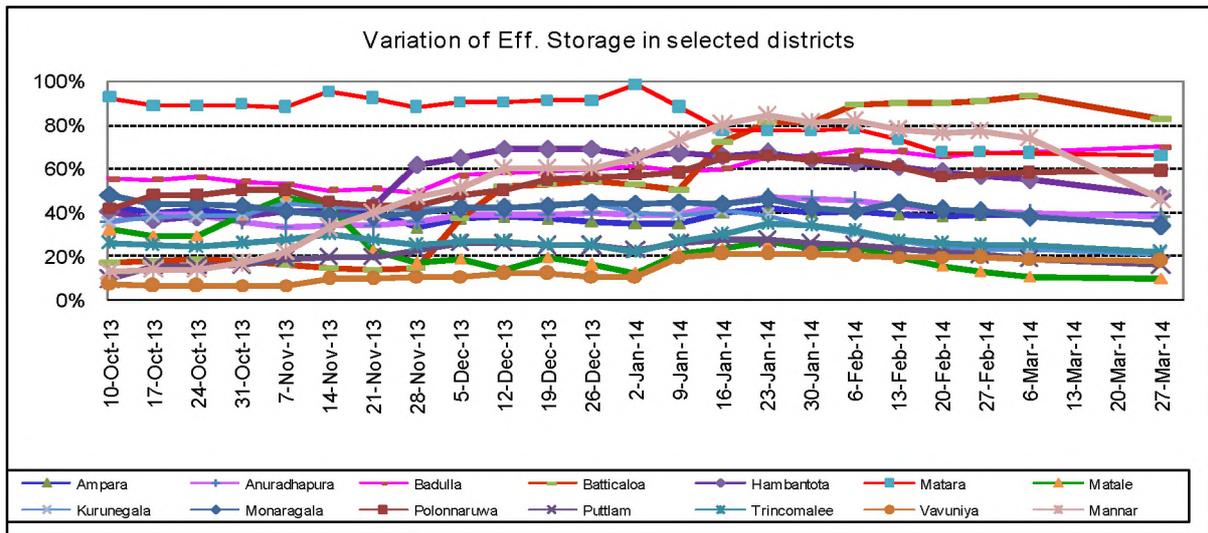
**Fig 2.1.1: Comparison of Cultivated Extent Maha & Yala**

## 2.2 Water Management in the Maha season 2013/14

At the end of Yala 2013 water availability of major reservoirs were 37 %. From the second inter monsoon and North East monsoon reservoirs water storage raised up to 50% on 21<sup>st</sup> January 2014 and only few reservoirs (Magalla, Deberawewa and Elewewa) were spilled. Water availability of major

reservoirs in Matara district was in good condition and Matale, Puttalam, Vavuniya and Trincomalee district were in very bad condition. Hence, cultivation of these districts was started at the end of October and other districts cultivation were started on November. 84 % of Major irrigation and 64% of medium irrigation extent were cultivated during Maha 2013/14. At the end of the season water storage reduced up to 44%.

Fig 2.2.1 : Variation of storage at district wise during Maha 2013/14



### 2.3 Water Management in the Yala Season 2014

Water issues from irrigation reservoirs started month of April for yala 2014 with availability of 40% storage. During Yala season, S-W monsoon rains brought heavy seasonal inflows to Mee Oya system, and part of Kala oya system. Rajangana Reservoir, Ambakolawewa, Attargalla Reservoir Inginimitiya Reservoir and Tabbowa reservoir were started to spill at the end of May . Water consumption in all reservoirs was in the better condition due to dry weather drought situation during Yala 2014 and good water management practices and other measures were introduced to manage with available storages.

Fig 2.3.1 : Variation of storage at district wise during Yala 2014

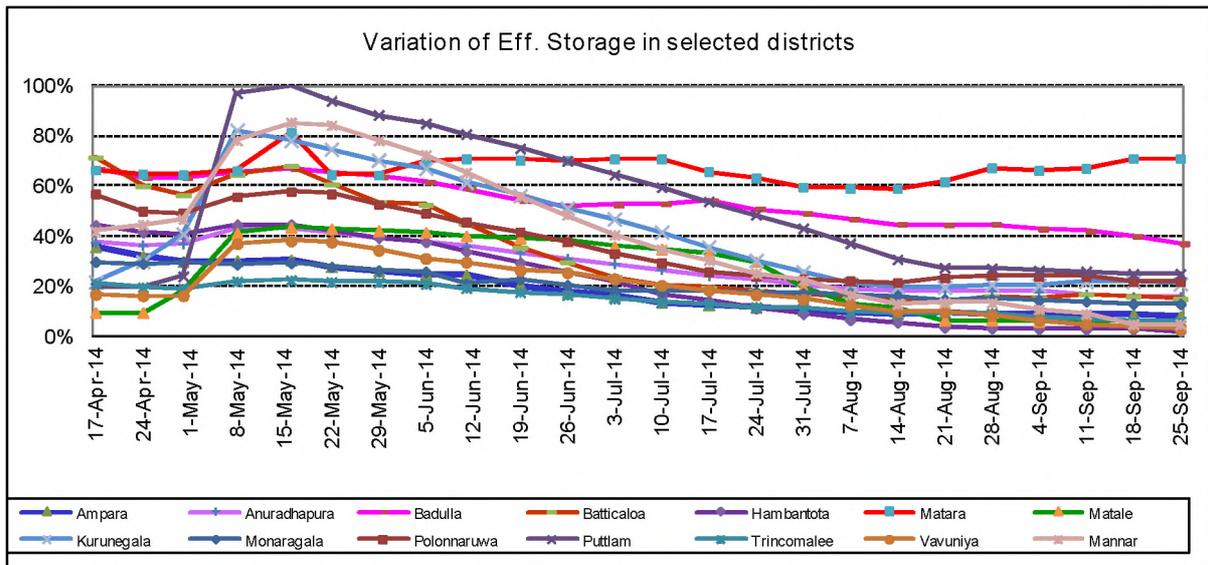


Fig 2.3.2 : OFC Cultivation MeeOya System, Kurunegala District – Ground Nut & Maize Cultivation



Fig 2.3.3: Construction of agro wells and OFC cultivation; Padaviya scheme, Anuradhapura District



Fig 2.3.4: Maize and chille cultivation under Hurulu Wewa scheme in Anuradhapura District



Fig 2.3.5: B onion cultivation from agro wells: Hurulu Wewa scheme in Anuradhapura District



Fig 2.3.6: Water Melon & Cowpea cultivation from agro wells: Padaviya scheme in Anuradhapura District



Fig 2.3.7 : Green gramme cultivation – Ridiyagama scheme; Hambantota District and Mee Oya system in Kurunegala District



## 2.4 Water Shed Management & Catchment Protection programme

This programme is planning to implement for mitigate or overcome the following challenges.

- Due to spatial and temporal variation of monsoonal behavior patterns and related ambiguities in the planning of crop types and seasonal cropping calendars.
- High intensity rainfall leading to flash floods. This shall lead to heavy soil erosions in the catchment areas and subsequent accumulations in tank beds and supply canals.
- Prevailing high rate of evaporation results in the reduction of base flow in the water resources and increased irrigation water duties in the farm plots. The situation is further aggravated due to the encroachment of reservations of tank beds, canals, rivers and streams. Intertwined with illicit haphazard clearing of forest cover during up of natural spouts is often seen. The eternal quarrel between wild elephants and villagers has emerged as a direct outcome.
- Contamination and pollution of water bodies with heavy metals and nitrites has become a threat to the health of human and wild life and the gradual chemical degradation of irrigated agriculture lands. Poverty uncertainty and society up rises shall emerge as an integral outcome of the above.

Development of water resources in the water shed, protection, conservation and management of water resources and water bodies is very much essential. This programme included demarcate reservation,

identify suitable plants, nursery training for farmers, prepare nurseries at Farmer organization and planting through farmers participation. To implement this programme following schemes are selected. Due to dry weather situation during last year plantation was started very few schemes. But Project management committee awareness, selecting farmers from farmer organizations, awareness for selected farmers, field visits, selecting suitable plants, nursery training and starting nurseries were completed during year 2014.

No	Range	Division	Scheme	Number of Plants	Total
1	Badulla	Badulla	Thaldena	111,500	116,219
		Kandekrtiya	Komarika Ela	4,719	
2	Colombo	Rathnapura	Kaltota	2,300	11,510
			Panamura	1,600	
		Gampaha	Gampaha	7,610	
3	Hambantota	Hambantota	KudaIndhiwewa	45,950	690,351
			Ridiyagama	50,050	
		Tissamaharama	Pannegamuwa,Debarawewa	38,031	
			Lunugamwehera		
	Weeraketiya	Muruthawela	556,320		
4	Kandy	Kandy	KehelpathAmuna	395,475	514,175
			BandaraAmuna		
			UdugodaBandara Ela	118,700	
5	Kurunegala	Galgamuwa	Mahasiyambalangamuwa	123,250	382,852
			UsgalaSiyambalangamuwa	5,047	
			Mahananneriya	242,725	
		Hiriyala	KimbulwanaOya	10,000	
		DeduruOya Project Office	DeduruOya	1,830	
6	Monaragala	Monaragala	Yudaganawa,ButtalaAnicut	4,763	614,163
			Yudaganawa,ButtalaAnicut	7,000	
			Muthukandiyaya	206,820	
		Wellawayaya	Halmillapillewa	186,645	
			KumbukkanaAmuna	206,655	
			Karawila,Detagamuwa	2,280	
7	Polonnaruwa	Kaudulla	Ambagasswewa	373,752	373,752
8	Puttalam	Puttalam	Tabbowa	5,500	9,500
			Karawita	4,000	
9	Trincomalee	Kantale	Peramaduwa	2,563	72,478
			Wan Ela	69,915	
	<b>Total</b>				<b>2,785,000</b>

## 2.5 Irrigation & Productivity Enhancement

A new division was established under the restructuring of the Irrigation Department in 2013. The objective of the branch is to establish a modern integrated management system to increase social economic standard of farming community through participatory management approach by optimum use of one unit of water and one unit of land in irrigated agriculture.

Under this new subject following activities were launched during year 2014 and expected to concentrate more on year 2015.

1. Establishment of Integrated Management System (Increasing Capacity of Integrated Management - ICIM program) to improve land productivity in all major irrigation schemes.
  - One model scheme in each divisional irrigation engineer's area was established (about 48 nos.) and expected to disseminate ICIM model to other areas island wide.
  
2. To Increase cropping Intensity by crop diversification and special attention were made to cultivate other field crops (OFC) in water short areas.
  - We have achieved self-sufficiency in paddy and OFC is better solution for the drought situation which we faced during this year and achieved for about 60,000 Acs OFC cultivation and prepared for 85,000 Acs targets in next year.
  
3. Establishment of unit office system for easy access to grass root level and develop relation between beneficiaries and other stake hold agencies
  - 106 unit offices out of 216 total nos. established during year 2013 and other 70 nos. were completed during this year. Next year program is to complete balance 40 nos. of unit offices & strengthening of unit offices by giving office equipment and other facilities.
  
4. Training of farmers and field officers on irrigation and other off farm activities such as cultural, environmental and new income generating avenues.
  - Many training programs were launched with the participation of Agriculture department and Agrarian Development department to enhance capacity of farmers and officers. This program has to be extended island wide in all major irrigation schemes.
  
5. Improvements to land productivity in wet zone areas coming under the Administrative Districts of Colombo, Gampaha, Kalutara, Galle and Matara. More than 50,000 Acs of irrigated land abandoned in these areas due to long lasting constraints and need to find solutions.
  - Irrigation Department launched an Integrated Management program to improve land productivity in above areas starting from Iththepana in Kalutara District under the patronage of H.E the president on 01.11.2013 and demonstration sites for cultivation commenced during this year and need to disseminate the concept all over the wet land with rehabilitation of irrigation infrastructure.

### 3.0 Present Status of the Projects Implemented by Irrigation Department (GOSL funded projects)

The total financial allocation for capital expenditure for the year 2014 is Rs. 11,020 million and Rs.11,013.63 million was spent up to the end of December. Detailed Financial progress of individual items is given below with a brief description of the items and present financial position of work.

#### Summary of Capital Expenditure

Name of Project	Revised Allocation for Year 2014 Rs.Mn	Cumulative expenditure up to end of December 2014/ Rs.Mn
Project 1 Administration and Establishment ,services	45.67	43.31
Project 2 Administration and maintenance of Irrigation schemes	1,974.52	1,970.07
Project 3 Major Irrigation Schemes	8,649.99	8,649.99
Project 4 Medium Irrigation Schemes	350.28	350.27
<b>Grand Total</b>	<b>11,020.46</b>	<b>11,013.63</b>

#### Summary of Recurrent Expenditure

Name of Project	Allocation for Year 2014 Rs Mn	Cumulative expenditure up to end of December2014/ Rs.Mn
Project 1 Administration and Establishment services	474.83	472.52
Project 2 Administration and maintenance of Irrigation schemes	1,368.05	1,360.85

## **Major irrigation Schemes**

1. Deduru Oya Reservoir
2. Manik Ganga Reservoir (Weheragala) –phase ii
3. Rambukkan Oya Reservoir
4. Lower Uva Project
5. Yan Oya Project
6. Lunugamwehera Scheme ( KOISP LB tract 3) Water Management Project
7. Mahagona wewa project
8. Ellapothana Anicut
9. Galoyanavodaya
10. Essential Rehabilitation in selected Major Irrigation Schemes
11. Morana Reservoir
12. Elle wewa Reservoir
13. Digili Oya reservoir
14. Kalugal Oya Reservoir
15. Kumbukkan Oya Reservoir
16. Diversion Mahaweli Water to Wayamba

## **Medium Irrigation Schemes**

1. Wemedille Reservoir (SIRUP)
2. Gurugal Oya project
3. Nape Udawathura Reservoir
4. Wilakandiya tank
5. Gonagalathenna tank
6. Extension of Kaudulla stage 11 Ella up to Damsopurawewa
7. Augmentation of Mahagalgamuwa Tank
8. Construction of Pethiyagoda Pump House
9. Rehabilitation of Ginganga Flood Regulation Project.

### 3.1 Deduru Oya Reservoir Project

Location	: Kurunegala & Puttam district
Reservoir capacity	: 75 MCM
Irrigable area	: 27,000 acres
Beneficiaries	: 11,500 farmer families
TEC	: Rs. 13,540 million
LB Main canal	: 45km
RB Trans-basin canal	: 36.5km

Main bund, spillway construction, LB and RB sluice construction have been completed and 99% of fixing of the spillway gates has been completed.

The first 29 km of LB Main canal in Wariyapola D.S division has been completed and 95% of the LB Main canal in between 30-40 km in Kobeigane D.S division & 80% in 41-44 km Panduwasnuwara DS division are completed. Earth work has been completed in the first 25 km of the RB canal and 99% of concrete lining and 98% of structures have been completed. 88% of rock blasting is over. 76% of the earth work is completed from 25 to 36.5 km of RB canal. 582 families have already been re-settled out of 600 families.



Head works of the project was completed and His Excellency the president has declared open the project on 22nd November 2014.

Rs. 9392.44 Million has been already utilized and average 97% of the work has been completed at the end of December 2014.

### 3.2. Weheragala Reservoir Project

Location : Hambantota district

Reservoir capacity : 64 MCM

Irrigable area : 10,000 ha.

Beneficiaries : 8,000 farmer families

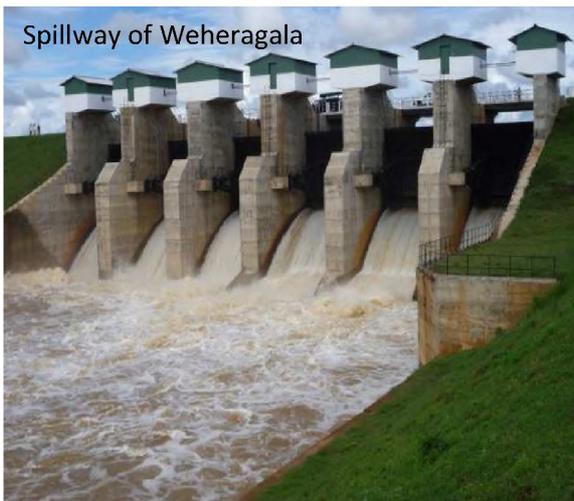
TEC : Rs. 2,900 million

The Weheragala project was started in 2005 and the construction of the reservoir and conveys system was completed in 2009 and some additional works were commenced. Total Estimated cost of the project is Rs. 2900 million and the total expenditure up to end of December 2014 was Rs. 2426.6millions. The physical progress of the project was 99% & currently following works are carried out under Weheragala Project.

#### Description

#### Physical Progress

- |  |       |
|--|-------|
| 1. Construction of Attikkawa Anicut        | 100 % |
| 2. Rehabilitation of Lunugamwehera LB & RB | 60 %  |
| 3. Rehabilitation of Ellagala System       | 80 %  |



### 3.3 Rambukkan Oya Reservoir Project

Location	: Ampara district
Reservoir capacity	: 56 MCM
Irrigable area	: 1423 ha.
Beneficiaries	: 2300 farmer families
TEC	: Rs. 3970 million
Bund length	: 1097 m
Main Canal	: 7.6 km

Head works of the project was completed and His Excellency the president has declared open the project on 20<sup>th</sup> July 2013 and the first water has been issued to tract 1. Constructions of field canals and other infrastructure facilities are in progress. Overall physical progress of the project was 98%. and expenditure up to the end of December 2014 was Rs. 3635.11million.

### 3.4. Yan Oya Project

Location	: Anuradhapura, Trincomalee districts
Reservoir capacity	: 169 MCM
Irrigable area	: 5696 ha.
TEC	: 34,000 Rs. Mn.

It is proposed to construct a dam across Yan oya at Pangurugaswewa in Trincomalee district. It is located upstream of existing Yan Oya anicut. The project envisages constructing about 2.35 km long main earthen dam and 3.59 km long saddle dams and 34km long canal system in LB and RB to irrigate 5696 ha of lands in Anuradhapura and Trincomalee Districts. This includes 2200 ha of existing land under Padaviya scheme where severe water deficit specially during Yala. This will also provide water to 140 ha existing lands under Wahalkada

scheme and 100 ha new land along LB canal and existing lands under Yan Oya anicut( 750 ha) and minor schemes in Mee Oya basin (1735 ha) in Trincomalee District.

Feasibility study and the EIA of the project are completed except the clearance from Forest Department & Archeology Department. The expenditure up to the end of December 2014 is Rs. 5423 million.



### **3.5. Lower Uva Minor/ Medium Irrigation Project (LUMP)**

Location : Monaragala district

Beneficiaries : 2,500 farmer families

TEC : Rs. 550 million

This project is proposed to augment one medium tank namely Debara Ara Wewa in Wellawaya Divisional Secretary Division and about 22 minor tanks. Estimated cost of the project is Rs. 550 million and the allocation for year 2014 is Rs. 114.3 million. Overall average physical progress of the project was 80% and Rs.407.87 million has been utilized up to the end of December 2014.

18 numbers of minor tanks are completed. Following works are in progress

- Construction of Debara Ara Feeder Canal ( 80 % completed)
- Rehabilitation of Meegaha Arawewa (FD clearance is not given yet)
- Rehabilitation of Maduru Wewa (FD clearance is not given yet)
- Rehabilitation of Mallipotha tank (85% completed)
- Rehabilitation of Watagalaara ( 95% completed)

### 3.6 Mahagonawewa Project

Proposed Mahagona Wewa is an abandoned tank denoted by the Coordinate S/1 (2.0 X 8.6) and situated in Dambulla Divisional secretary division of Matale district. Total Estimated cost is Rs. 70 million. 41.83 million have been utilized up to the end of December. Cumulative Physical Progress of the project was 42%.

The progress as follows,

1. Construction of access road from 0.0 km to 2.30 km – earth work is completed
2. Construction of Vented Causeway at 1+560 Km is completed
3. Construction of 0.45m $\Phi$  x 5.48m long H/pipe culverts – 100%
4. Construction of main Bund – Stripping, excavation and removing of loose soil are completed.
5. Construction of Sluice - 60%



### 3.7. Ellapothana Anicut Scheme

Ellepothana Anicut was constructed across Yan Oya about 15km downstream from existing Illukwewa Anicut. The anicut is situated in Kahatagasdigiliya Divisional secretariat area and majority of the beneficiaries are living in Horowpothana Divisional secretariat area. This scheme provides irrigation facilities for 1,360 acres in Maha season and 545 acres in Yala season to increase the living standards of 1,038 farm families.

The extension of LB canal up to Mora Oya is being under investigation which considered as the phase II of the project. Under the phase I of the project, right bank canal augment three minor and medium

tanks namely Ellepothana wewa, Siyambalawewa and Wahagahapuwewa to provide irrigation facilities for 430 acres. Whereas the left bank canal augment 5 tanks namely Wadigawewa, Elapathwewa, Wilewewa, Kudawewa and Thirappankadawala to provide irrigation facilities for 930 acres.

Total Estimated Cost	-	300Mn
2014 Allocation	-	20Mn
Cum. Physical Progress	-	97%
Cum. Financial Progress up to end of 2014	-	RS 288.27 Mn



### 3.8. Gal OyaNavodaya

The project activities include the following main components.

- i. A Comprehensive Water Resources Development and irrigation Plan, that will harness unutilized potential, and increase efficiencies in the usage of water.
- ii. A productivity Enhancement program in order to generate more income from irrigated Agriculture.
- iii. Improving and upgrading the physical infrastructure to serve the people: road, water supply, sanitation, education etc.
- iv. Harnessing the potential for Agro-based industries including post-harvest activity, for value addition and enterprise development.

The project will be implemented in two stages. In the first stage priority items will be taken up on a year investment plan and implementation schedule. Second stage will be extending to a further period 2-3 year with large undertakings.

Project estimate is Rs. 1260 million and the irrigation department component is Rs. 650 million. Revised allocation for year 2014 is Rs. 169.07 million and cumulative expenditure of the end of December 2014 was Rs. 758.35 million overall physical progress of the project was 85 %.



Gal Oya Navodaya Project

### 3.9. Essential Rehabilitation in Selected Major Irrigation Schemes

The main objective of this project is to stabilize and increase agricultural production in some selected major medium irrigation schemes by rehabilitating the essential components of the downstream canal system. There are 109 major irrigation schemes which serve for 586 323 acs & 254 Medium schemes which serve for 96333 acs under Irrigation Department. Many of those schemes are now under rehabilitating state due to various reasons. The project ; Essential Rehabilitation of Selected Major Irrigation Scheme has been started in 2009 under annual budget allocation to do identified essential rehabilitation works in those schemes.

The rehabilitation works of more than 100 irrigation schemes have been done from 2009 by the end of year 2013. This year, it has been planned to do essential rehabilitation works in 128 irrigation schemes and most of them have been completed successfully.

Summary of financial progress	
Year	Expenditure /RS.Mn
2009	11.3
2010	102.04
2011	172.73
2012	1217.58
2013	657.42
2014(End of December)	611.56

Summary of financial plan	
Year	Investment / RsMn.
2015	1000
2016	1015
2017	1024

Apart from this expenditure for rehabilitation works, Rs. 1,115 million has been incurred in 2012/2013 under this project for the Accelerated Development Programme for enhancing the living conditions of the people affected drought. Therefore total expenditure of the project at the end of December 2014 was Rs. 2772.63 million.



Lamasuriya Scheme



Retwntion Wall- Karada Oya



Pannalgama Schem



Pallan Oya Main Canal

**3.10 Morana Reservoir**

Location : Badulla district (Ridimahaliyadda )

Reservoir capacity : 16.53 MCM

Irrigable area : 2500 acres.

Beneficiaries : 1000 farmer families

TEC : Rs. 1700 million

Proposed Morana reservoir is constructed across Ulhitiyaoya at a location called “Morana” and water is diverted to Rotagollawewa in order to overcome the shortage of water at Nagadeepa scheme. Rotagollawewa is located at the downstream of the Nagadeepa reservoir.

Revised allocation for year 2014 was Rs. 260.6 million and cumulative expenditure at the end of year was Rs. 400.67 million. Performance at the end of year 2014 as follows.

<b>Work Component</b>	<b>Physical Progress</b>	<b>Remarks</b>
Construction of Head Works	Mobilization work completed Dam Construction : – 11.5 % Construction of LB Sluice : – 20 % Construction of Spill way : – 13 %	Grouting work completed in dam. Clay filling of core trench, Earth filling of bund, Construction of Sluice Barrels are in progress
Conveyance System	17.5 % of Physical Progress	Excavation of Canal is in progress
Land Acquisition work	16 % of Physical Progress	Compensation not completed. Compensation paid for cultivation in yala 2014



### 3.11 Ellewewa Reservoir

Location : Ratnapura district (Embilipitiya )

Reservoir capacity : 2.25 MCM

Irrigable area : 1250 acres.

Beneficiaries : 1000 farmer families

TEC : Rs. 468 million

Elle project was proposed to address the water scarcity problem in Panamure scheme. The reason for water shortage is mainly due to increase in irrigable area owing to the encroachments by new settlers.

### 3.12 Digili Oya Reservoir

Location : Matara district (Akuressa )

Reservoir capacity : 7.57 MCM

Irrigable area : 2058 ha.

TEC : Rs. 1460million

Digilioya reservoir will be constructed under the Nilwala Ganga flood protection programme.

Construction works has been temporally suspended with the instructions of his Excellency the President. Environmental clearance has not been received yet.

### 3.13 Kalugal Oya Reservoir

Location : Ampara district (Uhana)

Reservoir capacity : 7800 ac.ft

Irrigable area : 1500acres.

TEC : Rs. 1481 million

Construction of bridge across the Kalugal Oya has been completed & Construction of access road is in progress. Construction of head works will be commenced after receiving the EIA clearance. Commutative expenditure at the end of December was Rs. 58.54 million.

### 3.14 Kumbukkan Oya Reservoir

Location : Monaragala district

Reservoir capacity : 55 MCM

Irrigable area : : 10,000 acres new lands and 3000 acres existing .

Beneficiaries : 6000 farmer families

TEC : Rs. 10000 million

Project is temporarily suspended due to objection of small group of people.

### **3.15. Diversion Mahaweli Water to Wayamba Project - (NWP Canal)**

Location : Kurunegala district

TEC : Rs. 12,000 million

Irrigable area : 8098 ha.

Project is at the initial stage. Community awareness meetings, Preparation of resettlement plan, engineering survey along the canal trace are in progress. It is expected to get ADB funds for this project. Cumulative expenditure at the end of year 2014 was Rs.23.34 Mn.

### **3.16 Wemedilla Reservoir**

Location : Matale district

Reservoir capacity : 4593.6 ac.ft

Irrigable area : 720 acres new lands and 1142 existing lands.

TEC : Rs. 335 million

The project work was completed and the balance payment of compensation to be settled.

### **3.17. Gurugal Oya Reservoir Project**

Location : Kandy district

Irrigable area : 810 ha.

Beneficiaries : 2400 farmer families

TEC : Rs. 730 million

98% is completed in the construction of gravity dam. Construction of LB side abutment & Spillway construction are completed. Overall physical progress of the project was 80%. Allocation for the year 2014 was 230.58Mn. & Cumulative expenditure at the end of December 2014 was Rs. 564.59 million.



Gurugal Oya Reservoir Project

### 3.18 Nape Udawathura Tank

Nape Udawathura tank is being constructed under the Nilwala Ganga Flood protection Scheme in Matara district. The tank is planned to take optimum use of inflows providing additional storage capacity for flood detention and for cultivating 200 acres in both Maha and Yala seasons. Estimated cost of the project is Rs. 40 million. Commulative expenditure at the end of December was Rs. 24.82 million. Overall Physical progress of the project was 98%. Construction of Access road, Core Trench, tank bund, spillway and Sluice has been completed. Land Acquisition was also completed. 40% of IFF has been completed.



Nape Udawathura tank

### **3.19 Wilakandiya tank**

Wilakandiya tank situated in Badulla district and is an abandoned tank. About 500 acres of flat lands available immediate downstream of the tank will be developed as the irrigable area under the proposed restoration. The project estimated cost is Rs. 270 million. Cumulative expenditure up to end of December was Rs. 142.19 million. Overall physical progress of the project was about 82%.

### **3.20 Gonagalathenna Tank**

The proposed Gonagalathenna tank site is located in Kandy district. After implementation of this project, it is expected to provide irrigation facilities for 325 acres paddy land in Maha season and 37 acres in yala season. Estimated cost of the project is Rs. 55 million.

68% of the construction of tank bund 33% of the construction of spillway and 48% of the construction of LB sluice has been completed up to end of December 2014. 70% of the construction of access road was completed. Overall physical progress was 25%. Allocation granted for the year 2014 was Rs. 16.95 Mn and cumulative expenditure up to the end of December was Rs. 26.85 million.

### **3.21 Extension of Kaudulla Stage 11 Ela upto Dampapura**

The proposed project involves extension of LB canal of Kaudulla scheme, improvements of Damsopura wewa, augmentation of Babiya wewa, construction of canal system together with related structure and development within the project area. The project is expected to provide irrigation facilities to 1850 acres of paddy lands including 870 acres of new lands. The estimated cost of the project is Rs. 368.82 million. 4 km of canal trace has been finalized & Rs. 1.49 million has been utilized of the end of December 2014.

### 3.22 Augmentation of Mahagalgamuwa Tank Project

The proposed Mahagalgamuwa Tank site is located in Kurunegala District, Ehatuwewa DS Division. After implementation of this project, it was expected to provide Irrigation facilities for 1400 acres paddy lands. The estimated cost of the project is Rs.500 Mn. Cumulative expenditure at the end of December 2014 was Rs.11.1 million.

### 3.23 Pethiyagoda Pump House Project

The proposed project involves construction of pumping station and related facilities at the present drainage gate of the north bund of Kelaniganga flood protection scheme. Part of the Kelaniya DS divisional area is subjected to frequent flooding. This is caused to various kind of damages and losses of the properties of the people in the area. Flooding is caused by local drainages are blocked when the Kelani River is higher level to prevent the river water coming in. Therefore this local flooding problem could be mitigated only by pumping. By this project it is expected flood mitigation of 33 ha of highly developed land area and annual saving of about 5 million worth people properties. Total project cost is Rs. 310 million.

Action has been taken to settle the people in the project area.

## 4.0 Medium projects Implemented under the Ministry & Other Agencies

### Votes

#### 4.1 SamaradeniyaWewa

Estimated Cost	- Rs. 30,000,000.00
Overall Physical progress	- 99.5% completed
Land Acquisition	- 75% completed
Core trench	- 100% completed
Spill	- 100% completed
Sluice	- 100% completed
Tank Bund	- 100% completed
IFF	- 10% completed
Total Expenditure	- Rs. 12.8. Mn

## 4.2 Construction of Urugamuwa Mawala tank

Estimated Cost	– Rs. 40,000,000.00
Physical progress	- 100% completed
Expenditure	- Rs.37.7.Mn

## 4.3 Wahalkada New Spill

Wahalkada tank is one of the major schemes which cultivate 2000 acres of extent in Padaviya division. It was restored on 1959 and has a 3 gated spill. The existing 3 gated spill way was not sufficient to discharge the excess water. Therefore, the bund was breached at two locations to reduce the capacity by releasing excess water.

An additional spill is being constructed by the Essential Improvements to rehabilitation of major medium irrigation works (Ministry).

Total Estimate Cost	- Rs 24.9 Mn
Physical Progress	- 97 %
Cumulative Expenditure	-Rs 24.9Mn
2014 Allocation	- Rs 15.7Mn

## 4.4 Kiulekada New Spill

Kiulekada tank in Galenbindunuwewa Divisional Secretariat is one of the medium tank in Huruluwewa scheme attached to Huruluwewa division. The tank has a capacity of 7800 acft and supplies water for cultivation of about 800 acres of paddy lands. The spill of the bund is 125 ft long clear over fall spill and adjoining one side to a rock of a mountain and the other side to the left bank bund. The spill breached during heavy rain experienced on 3<sup>rd</sup> and 4<sup>th</sup> February 2011.

Spill was constructed by the JICA funding project (ENDReP Project)

Total Estimate Cost	- Rs 215 Mn
Physical Progress	- 95 %
Cumulative Expenditure	- Rs 148.67 Mn
2014 Allocation	- Rs 50.0Mn

## 2. Mahaweli Authority of Sri Lanka

Mahaweli Development Programme significantly contribute to the Irrigation, agriculture and rural development sector over three decades since 1970s to the present, currently it has been focuses and act on development targets outlined in the National development policy framework of the Ten Year Development Plan.

Mahaweli Authority of Sri Lanka placed high priority in operation and maintenance of already built irrigation infrastructure, while enhancing agricultural Production in Mahaweli areas and to complete the balance works remained under the Mahaweli Development Programme to secure most needed irrigation water for the dry zone.

National Irrigation policy direction, plan to achieve its goal with the five drives as,1) Water resources development and management (2) Improvement and the modernization of irrigation infrastructures (3) Watershed management (4)Institutional reforms (5) Research & Development. In line with those directions MASL pay attention to develop regions which known as high vulnerable in terms of water and food security, Northern and Eastern provinces where development initiatives were obstructed due to conflict situation prevailed for last three decades. Under that, Planning and designing works are underway of irrigation and development projects of North Central Province Canal, Maduru Oya Right Bank, AllaiKantale, and also implementation works of Kivul Oya and System L- Weli Oya which contribute significant benefits in agriculture and food security of the country while ensuring sustainable employment opportunities for large amount of rural community.

The multi-purpose Mahaweli Development Programme is partly completed and its benefits are already consolidated and moving forwards to the National prosperity. It performs to substantial increase of country's food production through irrigation, agriculture extension, productivity enhancement and its provide extensive benefits through hydro power generation. Rural Infrastructure development is another key function throughout the programme, since sustainable resource mobilization within the rural part of the country is a must for achieving the balanced regional development. The programme has been able to build the credibility in terms of ensuring substantial growth in rural household income through opening up new revenue streams and strengthening entrepreneurship capacity of rural community. Proposed projects under the programme are now focused for the utilization of hitherto untapped water resources of the Mahaweli River and its allied river basins.

Mahaweli Development programme had envisaged to develop 365,000 ha of land for agriculture in 13 Mahaweli systems defined in the Mahaweli Master Plan. It included construction of series of

reservoirs with hydro power plants, irrigation network, opening up of lands for agricultural and land development for settlements with necessary socio economic infrastructure facilities. The proposed development spread over 55 percent of the dry zone, while making a significant contribution to the national hydro power generation.

Mahaweli Authority of Sri Lanka was established in 1979 by the Parliament Act No. 23 of 1979 with a mandate to implement the Mahaweli Master Plan. Its ongoing task is to plan and develop balance area proposed in the Master Plan, operation, maintenance and rehabilitation of irrigation network, land administration, increase agriculture production, post-settlement activities and introduce sustainable revenue streams for the settlers to upgrade their socio economic standards. Managing irrigation water for 100,000 ha of agricultural land in the dry zone is the key responsibility of Mahaweli Authority.

Total investment made in the Mahaweli Development Programme up to end of December 2014 was approximately Rs.110 billion. Value of cumulative benefits through agriculture production and livestock approximately Rs. 900 billion at the end of December 2014.

MASL plays an active role in Agriculture development of the country. It accounts more than 22% of domestic paddy production, 98% of soya bean, 9% of Green grams and 6 % of chili production and many more other field crops.

## 1.0 Development Activities carried out in year 2014

### 1.1 Overall Financial Progress

Total capital budget (Revised) for the year 2014 was Rs.2,225 Million. Financial progress up to the end of December 2014 is given below:

Rs. Mn			
Type of Project	Budget Provision	Amount Released from the Treasury ( Up to end of December 2014)	Expenditure (Up to end of December 2014)
Mahaweli Projects	1,090.00	1,106.00	1,119.182
Administration and Maintenance	1,135.00	1,144.80	1087.805
<b>Total</b>	<b>2,225.00</b>	<b>2,250.80</b>	<b>2,206.99</b>

## 1.2 Mahaweli Projects

### 1.2.1 Mahaweli Consolidated Project

The objective of the project is to increase income levels of rural community in the Maduru Oya Left Bank through assuring irrigation water for agriculture. Project activities include (a) rehabilitation of the irrigation network that was built in 1982- 1986 in Maduru Oya Left Bank to improve water management (b) improve selected water supply schemes built under the Village Self-Help Project, (c) supporting agricultural development and farmer organizations, and (d) implementation of environmental conservation programmes. The irrigation system rehabilitation includes 52km of main canals, 65km of branch canals, 459km of distributary canals, 1,138km of field canals, 54km of drainage canals, 80km of O&M roads, and small tanks. The estimated total project costs Rs.2, 800 million. The project is scheduled for 06 years.

This project commenced in 2007, and cumulatively Rs.2716.3 million has been utilized at the end of December 2014. Total financial allocation (revised)for the year 2014is Rs.450Mnand Rs. 492.05 Mn been utilized until end of December 2014.. During this year 52 km of distributary canals and the 133 km of field canals rehabilitated and 82 km of D & F canal road competed. The project assisted farmers in livestock development through provision of 479of cattle, establishing 37 pasture plots and constructing of 661 of cattle sheds.



### 1.2.2 Malwenna & Mahawelithenna Balance part Development Project

The Mahawelithanna area is falls within the upper part of the Singhapura Division of polonnarura amalgamating Polonnaruwa and Batticaloa Districts. It is almost 30 years that system B (left bank) project was started and after the 10 year time people were settled in Singhapura Division under the management of 08 block units. But few years later, the development and resettlement work was

abandoned with the effect of worse conflict situation spread in to the area being isolated from the civil society and most of inhabitants were internally displaced and homeless during the war period. As a result of that it has been counted that there were over 1200 displaced which were send back to their native places by Mahaweli Authority of Sri Lanka.

But with the dawn of the peace, resettlement and rehabilitation of canal network was started and project will targeted to develop 850 of homestead lots and 850 of irrigated within the area of the Mahawelithanna balance part and Malwenna unit in Singhapura block by resettling the internally Displaced Persons and other resettler's within area to sustain the it with the agriculture development. Major activities of the project are, Resettled 859 displaced families in Singhapura block and establish the settlements, Develop 521 ha of existing underutilize lands for irrigated agriculture purpose and 174 ha as homestead lands in Malwenna and Mahawelithanna units and Ensure reliable water supply through construction of mahawelithenna tank and related irrigation canals. Total estimation cost of the project is Rs. 935 Million and 2014 financial allocation is Rs. 125 million. At the end of December 2014 total expenditure is Rs. 84.55 million. 100 hectares of jungle clearing and rough levelling works has been completed during year and construction works of multipurpose common buildings commenced during the year.

### **1.2.3 Rambaken Oya Integrated Project**

Rambukkan Oya Reservoir and Irrigation Project, planned for provision of irrigation network and land development benefiting 3,550 families within the area. The Project falls within Maha Oya Divisional Secretary's Division which is also falling within the Mahaweli gazetted area. Rambaken Oya reservoir has been completed by the Irrigation Department and commissioned on July 20<sup>th</sup> 2013. Reservoir and other main Irrigation infrastructure is being developed by the Irrigation Department. The settlement, land development and agriculture/livestock activities have been assigned to the Mahaweli Authority of Sri Lanka. MASL commenced assigned work in 2012. For the year 2014, Rs. 115 million allocated for the work and utilized Rs. 84.5 Million at the end of December 2014. Three school buildings in niloba & pollebedda secondary schools and another 12 buildings works were carried out.. Demonstration farm is in operation focusing commercial fruit & OFC cultivation. Dairy development activities promoted through supply of 30 no of cattle and construction of 20 no of cattle sheds. Nearly 50 no of Awareness and training programmes were conducted under different themes for over 500 peoples to improve their capabilities.

### **1.2.4 Kivul Oya Reservoir Developments**

Kivul Oya Reservoir project is located within the Districts of Vavunia, and Mullativu. Objective of the project is to utilize hitherto untapped water resources of the Ma Oya Basin for agriculture and domestic purposes. Initially, the reservoir operates independently within the basin water resources and later, it will be connected to the proposed NCP Canal. The project activities includes; (a) construction of a reservoir across the Kivul Oya main tributary of Ma Oya River, close to Sampathnuwara, (b) construction of canal network to irrigate for 1,700 ha of new lands and provide adequate water for existing 5 village tanks which serves 700 ha. (c) Settle 2,000 new families and (d) downstream development. Total estimated Cost for the project is Rs. 6,000 million. The project was commenced in 2012. Engineering surveys of 1900ha were completed during the year, while improvements of hamlet road(63.5 km), Access and Agriculture roads (43 Km), further 9 no of dug wells completed within the year. Fund allocation for the year 2014 is 100 Million and Utilized Rs.62.6 Million at end of December 2014.

### **1.2.5. Integrated development project System L**

System L development project is located within the district of Anuradhapura, Vavuniya, Trincomalee, Mullativu and gross extent is 62,000 ha. System L project area has been divided into 9 zones based on hydrological boundaries. Zones 4 and 5 were taken up for development in the year 1981. 3,100 families settled within these two zones with common facilities. Development of the balance area held up and many families were displaced due to prevailed insecurity situation. Already developed socio-infrastructure such as village tanks, irrigation system, road network and common buildings were heavily damaged due to the war. With the revival of the Northern development programme MASL planned to rehabilitate damaged infrastructure facilities and resettle displaced families. Accordingly, 6,900 displaced families to be resettled in the project area during the period of 2012- 2015. Estimated total cost for the project is Rs3,957 Million. 30 km of field canal and 6 km of distributary canal construction works were completed. 2,688settlers were resettled and 1,700 no of families received monthly dry ration subsidy, for this year 35 no of Home garden planning programmes&58 no of Yaya demonstration programmes were conducted. Rs. 150 Million (revised allocation) was allocated for the year 2014 and the project has been utilized 280.37 Million at the end of December 2014.

### 1.2.6. Rideemalaiyadda Integrated Development

Rideemaliyadda Divisional Secretary Division has been identified as one of the most remote division and recorded as the poorest DS division in the country. A five year investment plan has been prepared to develop above division by Mahaweli Authority. The main objective of this plan is to develop social infrastructure facilities and opening up agriculture based productive and sustainable income avenues for the settlers. Under this programme main attention has been focused on commercial crop production, livestock and entrepreneurship development. In terms of providing sanitary facilities, required assistance has been given to construct the latrines for 1150 families. Among that 750 no of toilets completed and 9 no of bund & tank improvement works carried out including Thorapalayaya amuna anicut & canal, Rotagolla wewa, Allapita wala canal, kakkutuwaulpatha canal, medakumbura anicut and kalawalthenna canal. In addition 40 no of drinking water wells constructed during the period. Rs. 6.65 million incur to the dairy development of the area including the activities of supply of 80 cows and 5 no of cattle sheds. In the context of social enhancement, 03 no of socio-cultural enhancement programmes were carried out incurring Rs. 3.75 lacks. 150 Mn is allocated for the year 2014 and the project has been expended 115.16 Mn up to end of December 2014.



### 1.3 Maintenance and Administration

Mahaweli Authority of Sri Lanka manages irrigation water for 100,000 ha. Of lands, maintenance of 10,049 km. of irrigation network, 8 large reservoirs, over 400 minor reservoirs and 800km. of road network in 8 Mahaweli systems. Further, MASL is responsible for providing post settlement activities for 100,000 farmer families, land administration in 9 Mahaweli systems, implementing agricultural/livestock programs, training for second and third generation and implementing environmental conservation programs. The Revised budget allocation for the year 2014 is Rs. 1,135 million of which Rs. 1,087.8 million utilized up to end of December 2014.

### **1.3.1 Progress of Mahaweli Zones**

The fund allocation for operation & maintenance of land, and land administration, and agricultural & post settlement activities of Mahaweli systems 'B', 'C', 'D', 'G', 'H', 'L', Udawalawa, Huruluwewa, Victoria and Kotmaleis Rs.1,135 million. The regions carry out maintenance of irrigation system; land alienation, settlement development extending the facilities for 171,695 families in Mahaweli areas.

#### **1.3.1.1 Irrigation system operation**

Secondary growth clearing, de-silting, repairs and improvement to the irrigation system and structures, graveling, etc. are coming under Mahaweli irrigation systems maintenance tasks. The allocation in the year 2014 is Rs. 673.64million, of which Rs. 595.40 million was utilized to complete these activities up to end of December 2014.

975 Farmer Organizations have been formed within the Mahaweli areas. Operation & maintenance distribution canal network has been handed over to 789 farmer organizations. Promotion of 190 farmer organizations to Demonstration level and 36 farmer organizations to commercial level were initiated.

#### **1.3.1.2 Women Empowerment Activities**

The women plays a key role in achieving agricultural and economic targets within the Mahaweli areas. MASL has encouraged many women empowerment programmes which included forming small women groups, encouraging savings and organizing their own credit programmes.

#### **1.3.1.3 Institutional Development**

Upgrading Socio – economic condition of Mahaweli settlers through entrepreneurship, capacity building institutional strengthening, women empowerment, socio cultural development and sport activities are major areas of post settlement activities. Accordingly, Institutional Development Division of MASL organized various programmes and workshops for the second and third generations.

It offered 05 no of vocational training programmes and 10 settler training programmes at the end of December 2014. In addition 34 total no of programmes related to community development, social health and educational and health programmes were also conducted.

- “ISURA” Programme – telecast 09 nos. of programmes on Swarnavahini Channel on last week Fridays of every month.
- 35 nos. of Irrigation System Management Activities have conducted.

#### **1.3.1.4 Land Alienation**

During the year 2014 the issuing of lands Under the Crown Land Ordinance (CLO) 89 lots for housing, 110 lots for commercial, 16 lots for rice mills, 11 lots for metal quarries, 31 lots for commercial agriculture projects were handed over. 12,860 LDO permits and 1258 annul permits under CLO were also issued during this year.

Out of 237,241 alienated lots 15,794 grants had been issued. Issuance of land grants for the settlers was expedited during the year continuing last year special surveying and land marking programme with the Registered Surveyors under the supervision of the Survey Department. Under the Expedited Land Grants Programme 74,947 lots have been surveyed and land marked during the year. Plans for 71,990 lots were certified by the Survey Department and submitted to the MASL.

Annual rent collection target for the year is Rs. 196.74 million of which Rs. 182 million was collected at the end of Year.

### **1.4 Agriculture Development**

#### **1.4.1 Agricultural Productivity Enhancement Programme**

The programme was initiated for enhancement of local food crop cultivation and livestock production which will lead to reduce agricultural imports for the country and establish country's food security. Series of programmes such as promoting other field crops, introduction of hybrid seed paddy production, increasing use of organic fertilizers, establishment of farms & nurseries, promotion of export quality rice programme were launched and cultivation of traditional paddy varieties such as “Suwadal..Etc. was implemented under the program. Improved cattle management activities, upgrading of dairy cattle population, poultry management, and Inland fish development activities were taken up under the livestock development program.

#### **1.4.2 Agricultural Crop Cultivation**

In 2013/2014 Maha season, the cultivation of paddy extent in Mahaweli areas record as 88,939 ha and total paddy production was 512,521 Metric Tons during 2013/2014 Maha season. The average yield of paddy was 5.5 Mt/ha in Mahaweli areas. The highest average yield was recorded as 6.4 Mt/ha in

system Udawalawe. The other field crop cultivation extent is 36,527 ha. Cultivation extent of Yala season was decreased due to drought. The extent of paddy cultivation in 2014 Yala season was 41,700 ha. The other field crop cultivation extent is 29,944 ha. The total paddy production in both seasons is estimated as 753,802 Mts from Mahaweli Systems.

Crop production programme in Mahaweli areas for 2014 achievements includes 3,933 ha of soya bean, 4,768 ha of Maize, 2,899 ha of big onion, 717 ha of chili, 754 ha of Black gram, 1,376 ha of green gram, 1,470 ha of cowpea and 748 ha of ground nut. Further, 9546 ha of banana were under cultivation.

### 1.4.3 Dairy Development Programme

Dairy farming is promoted in Mahaweli areas as an additional income source and to maintain the high nutrient level of the community. Livestock Management Division of MASL is responsible for implementation and monitoring of dairy development programme for each Mahaweli system.

187,800 Cattle population in Mahaweli areas produced 23.3 million liters of milk during this period of the year 2014.

18 training programmes for dairy farmers carried out and 40 farmers were trained to improve animal nutrition and sufficient feeding techniques in dairy farming. Further, 48 programmes were conducted under “Milk Week” dairy programme to promote fresh milk production.

Two animal husbandry training centres are established in Girandurukotte system C and system L to provide new technologies, improve skills of officers and farmers on enhance productivity and cattle management.



#### **1.4.4 Inland Fisheries and Ornamental Fish Culture**

Inland Fishery Development within Mahaweli reservoirs is key programmes which help to upgrade income levels as well as nutrition levels among the Mahaweli Settlers. 4,747 Metric Tons of inland fish production reported during the year 2014. Meanwhile Ornamental Fish culture programmes were also organized and promoted in Mahaweli areas focusing young generation for sustainable employment opportunities within the area.

#### **1.4.5 Mahaweli Farms**

MASL has established 18 agricultural farms in Mahaweli areas in order to achieve high land productivity, generate more employment opportunities, and maintain the self-sufficiency in seeds and plant species, demonstration of new farm practices, integration of livestock component and farm practices for increase water productivity.

Management of Mahaweli farms carried out under six objectives of,

- Management of farms as a training center for farmers and officers.
- Establish as a center for research and development.
- Meet the regional need of seeds and planning materials.
- Center for good agriculture practices.
- Manage as eco-friendly local tourist residence.
- Establish as a maximum profitable commercial economic unit.

At the end of December 2014 the total asweddumized extent of the farms was 1484 acres which includes 975 acre of paddy, 50 acre of mango and 93 acre of Banana, Papaw 5 ac, Pineapple 1.8 ac, Dragon fruit 3 ac and Mixed cultivation of fruit crops 75 ac.

### **1.5 Forest & Environment Conservation**

Environment Division continues to manage and co-ordinate all environmental activities within the Mahaweli areas. The priority works for this year, Monitor and follow up all activities of environmental management plan given under EIA for Moragahakanda & Kaluganga Project were continued and necessary action has been taken for the environmental clearance to next extension.

Under the natural resources conservation component 19,224 meters of biological soil bunds and 7,553 meters of mechanical soil conservation boulder bunds were prepared to avoid possible siltation of the Mahaweli River. Tissue culture laboratory produced 96,963 plants which include bamboo, fruits and

plants which can be used as a biological fence for elephants. Water quality monitoring programme was continued and 84 planting programme for forest development, 107 of environmental education programmes were also conducted during the period. Annual allocation was Rs.20 million of which Rs.14.58 million utilized at the end of December 2014.

### 1.5.1 Mini Hydro Power Projects

Letters of Intends have been issued for construction of 19 mini hydropower stations in Mahaweli areas with a capacity of 59.3 MW of hydropower. Environmental Approval has been given for 16 projects of which work of 6 projects have been already commenced commercial operation.



### 1.6 Eco-Friendly Tourism

Feasibility studies to start an eco-friendly accommodation and tourism activities harnessing the environmental potentials of moragahakanda project area has been initiated while carrying out Boat services, further improvement and landscaping areas of Mahaweli reservoirs and green areas, attracting tourist into beautiful sceneries in Mahaweli zone.

### 1.7 Local Investments for Lands

Development Lands in Mahaweli areas are provided for high productive agriculture projects with the objective of motivation of private sector investments through Mahaweli Development. 543 no. of investors were given lands for commercial agriculture projects up to end of December 2014. SME programme organized with the support of Peoples Bank and Regional Development Bank financially assisted 1,782 SMEs in Mahaweli Areas which was worth over Rs. 271.50 Million during this year.

## 2. Key performance indicators

With the key objective of providing better service to the nation, The MASL deliver its service through a Six Key performance indicators (which have been identified as important principals that monitor the progress on MASL performance). These indicators are all quantitative in nature and are measured annually at the end of each year.

- Increase of surface Water Storage Capacity within Mahaweli & aliened basins
- Increase of total Irrigable Extent in Mahaweli Areas (ha)
- Increase of Cropping Intensity
- Increase of Diversified Crop areas (OFC)
- Completion of Human Resources Requirement in MASL
- Increase of Immediate Response for the Public Complains and grievances

### 2.1 Increase surface water storage capacity from 2,843 MCM to 3,745 MCM

66 MCM will be added in year 2015 with the completion of Kivul Oya Reservoir in Northern Province where water is inadequate and much essential in the context of area development. 570 MCM will be added with the completion of Moragahakanda In year 2016 and in year 2017 another 266 MCM will be added from Kaluganga Reservoir. The present status of construction works of the above as follows

- Kivul Oya–construction is in progress
- Moragahakanda - construction is in progress
- Kaluganga - Contract awards
- 

### 2.2 Increase irrigable extent from 102,898 to 121,725 ha.

7,300 ha will be open up in 2016 with the system B right bank development and the rest will be increase with the new development projects of Moragahakanda, Madirigiriya and Allai- Kanthale.

### 2.3 Increase cropping intensity from 192 to 195

MASL continues increase and maintain high cropping intensity within Mahaweli areas. Currently average cropping intensity rate is 192 and with the Agriculture enhancement programmes and new projects it is targeted to increase up to 195 within next 2 years.

**2.4 Increase of Diversified Crop areas (OFC) from 24,368 ha to 50,990 ha.**

Diversified crop area will be increase with the crop diversification programmes. Especially Soya beans, Maize, Big onion and Chilies will targeted to increase by extending necessary facilities.

**2.5 Completion of Human Resources Requirement in MASL**

Strengthening workforce required for the development and management of water resources continues. MASL approved carder consist of 4614 and present staff is 4327, out of that 36 in high management and 804 in middle management level. At present MASL operate 74% of technical staff, 55% of required professional staff and 89% of managerial staff. The required technical and professional staff will be filled 85% in within this year and other will be filled within 2015.

**2.6 Increase of Immediate Response for the Public Complains and grievances.**

To increase the immediate response for the public complains Planning and Monitoring unit of MASL records public complaints, report from newspapers and other media (Television, Radio etc...) and make needy arrangement & respond quickly. At end of December 2014, 80 complaints were recorded and taken necessary action for the relevant cases.

### 3. Irrigation Management Division

Irrigation Management Division (IMD) established in 1984, implements the Integrated and Participatory Irrigation Management (IPIM) in 54 Major Irrigation Settlements of over 400 ha at present. The main objective is to establish a self-reliant farming community in irrigated agricultural areas. It expects to implement participatory approach through active participation of beneficiaries and farmer representatives, while integrating state and non-governmental officials and private sector in order to achieve sustainable economic development of irrigated farming community by increasing the productivity of a unit of water.

This division is primarily responsible to establish and strengthen farmer-based institutions in major irrigation schemes in order to improve participatory operation and maintenance of irrigation sub system leading to increase agricultural production and productivity of unit of water. Through this it also enhance the knowledge and skills of farming community and uplift the livelihood.

#### Progress of Programs implemented in 2014

##### 1. Strengthening and Empowering Farmer Organizations

- 1.1 Assistance given for the farmer organizations (FO) to ensure good governance as follows.

Activity	Target	Achievement
Introduce amended constitution & systems & procedures (No of FOs)	217	153
Introduce standers System & procedure for FO management facilitate to them incorporate them to their management (No. of FOs)	324	143
Preparation of final accounts (No. of FOs)	821	684
Auditing of accounts (No. of FOs)	821	468
Conducting elections (No. of FOs)	369	310
Conducting Annual General Meetings (No. of FOs)	1641	1584
Development of FO fund (Rs. Million)	39	27
Increased viable farmer organization	500	676
Registration of System Level FOs under Agrarian Services Act 2000 No. 46 (No.)	16	7
Conducting Project Management Committees (No. of meeting)	575	405
Conducting Pre-Seasonal meetings ( No. of meeting)	99	91
Conducting Seasonal meetings (No. of meeting)	103	91

1.2 Conducted training programs to improve the capacity of farmers' organization leaders under the following aspects.

Topic of training	Target (No. of participants)	Achievement (No. of participants)
Financial Management	2,390	2,190
Legal empowerment	765	569
Leadership improvement	720	427
Introduction of amended constitution & procedures for FOs	950	646
Strengthening Farmer Organization	532	418
<b>Total</b>	<b>5,357</b>	<b>4,250</b>

### 1.3 Special activities

- ❖ Conducted 2 workshops in Redibendiela, Hakwatunaoya major irrigation area to monitoring of farmer organization activities & up dated their reports.
- ❖ Following action taken by strengthening system level farmer organization in, Bathalagoda, Inginimitiya , Mahakanadarawa, Mahawilachchiya, Ridiyagama , Major Irrigation Area.
  - Assist to final account preparation
  - Assist to amended constitution
  - Assist to held election on time, to selected their office bears
  - Assist to introduced system & procedure to strengthening good governance process
  - Organized Awareness program for 1064 Farmers and Farmer Leaders on Kidney Diseases collaboration with Regional Medical Officers.

## 2. Participatory Maintenance and Water Management Programme

2.1 Farmer organizations were guided and facilitated to participate in the following aspects under the participatory maintenance and water management Programme

Activity	Target Rs. (000)	Achievement Rs. (000)	%
Regular Grass Cutting Irrigation bunds & Roads by FOs Fund	42,767	26,536	62
Maintenance of Irrigation Structures and other Accessories by FOs Funds	11,926	9,588	80
Maintenance of Agriculture Roads by FOs Funds	10,003	9,398	94
Maintenance of Irrigation Drainage System by FOs Funds	4,184	4,882	116
Jungle clearing, desilting and other works - done by "SRAMADANA" (Estimate value man days x 600/= per day)	34,710	42,711	123
<b>Total</b>	<b>103,590</b>	<b>93,115</b>	<b>90</b>





2.2 Other Activity for strengthening of Participatory Operation and Maintenance Program as follows.

Activity	Target	Achievement	%
Preparing of Continues maintenance plans by FOs	318	125	39
Updating FO maintenance plans (No of FOs)	323	241	75
Demarcating/conserving reservations (Km)	1237	666	54
Development of Operation & Maintenance Fund (000)	45,718	58,263	127
Conducting Water Related Rituals (No's)	355	188	53



2.3 Conducted training and Awareness programs to Participatory Maintenance and Water Management Program to improve the capacity of farmers under the following aspects.

Activity Regular	Target (No. of Participants)	Achievement (No. of Participants)
Training Program for Regular Maintenance	4,100	3,108
Training Program for Water Management	1,220	643
Training for Water Masters	700	436
Field Experience Sharing	1,815	1,734
<b>Total</b>	<b>7,835</b>	<b>5,921</b>

2.4 Street Dramas, Walks, Distribution of Leaflets, Displaying banners and Posters, Essay and Art competitions in Schools, Awareness of School Children and Farmers, Shramadana Campaigns were conducted by Irrigation Management Division to commemorate the world water day year 2014. The main ceremony was held at Anuradhapura on 22<sup>nd</sup> March 2014.

### 3 Agricultural Production and Productivity Enhancement

3.1. IMD contributed to economic development of major irrigation areas coming under its purview by directing and facilitating the farming community to participate in increasing agricultural production and productivity as follows.

	Unit	2013/14 Maha	2014 Yala	2014
Paddy cultivation	Ha	132,645	86,537	219,182
Other Field crops (OFC)		2,300	4,589	6,898
Perennial Crops (Banana, Sugar cane)		2,198	2,198	4,396
<b>Total Extent</b>		<b>137,152</b>	<b>93,324</b>	<b>230,476</b>
Cropping Intensity				140%
Paddy Production	Tons Million	0.46	0.37	0.83
Value of Paddy Production	Rs Million	12,868	11,813	24,681
Value of Other Field crops & Vegetable production		616	888	1,504
Value of Perennial Crops production				1,500
<b>Value of Paddy +OFC+ Vegetable+ Perennial Crops production (Rs Million)</b>				<b>27,685</b>

3.2 1900 ha of green gram was cultivated as sandwich crop in between Maha and Yala. 350 tons of green gram production was contributed to the nation and the value of the production Rs. 93 Million.

Between 2014 Yala & 2014/15 Maha 6516 ha of Green gram was cultivated in Kirindioya, Rajanganaya, Dambarawa, Weli Oya, Gal Oya (LB) , Kantale, Thabbowa, Allai, Ridiyagama Major Irrigation areas. 1300 tones of Green Gram production was contributed to nation & value of production Rs 390 Million.

3.3 New export quality mango variety TOMEJC was introduced in Kirindi Oya Scheme. Through this horticulture instigation pilot project, it is expected to get a steady income and uplift the livelihood of farmer community, by export of products. 3323 TOMEJC mango plants were planted under by 152 farmers, under this program 50% the total cost was contributed by the Irrigation Management Division. For the sustainability of this project Memorandum of Understanding (MOU) was signed in between Irrigation Management Division, Farmer Organization, Ellawala Horticulture (Pvt.) Ltd. and Institute of Agro Technology and Rural Science of University of Colombo.

3.4 Soya Bean was cultivated in the extent of 75 ha and produced 150 tons in Huruluwewa Major Irrigation Scheme for the seed requirement of 2014 Yala. The seed production was sold as commercial seeds in the open market as the prevailed water scarcity in the Yala season.

3.5 Irrigation management Division facilitated and coordinated to produce 546 kg of Big Onion true seed from 10,150 kg of mother bulbs in 2013/14 Maha in Dewahuwa Major Irrigation scheme. 84 farmers engaged in this program and the value of the production is Rs. 1.75 M. 50% of the total cost of the mother bulbs were contributed by the Ministry of Agriculture.

3.6 Objective of the enhancing farmer family income and increasing milk production Livestock development program conducted in Kirindi Oya, Ridiyagama, Muruthawela Major irrigation area in Hambanthota District, Farmers identification completed and Commercial bank agree to given financial assistant supervision of the central bank, Matara Regional branch. Completed 57 cattle shed in kiridi Oya, Ridiyagama major irrigation areas and distributed 36 cows among the 36 farmers in Kiridi Oya

3.7 Climate change adaptation awareness program conducted financial assistant with Sri Lanka water forum .Under this program 638 FO leaders, 264 field officer and 841 farmers were made aware.

3.8 Joint progress review field days held in Nachchaduwa, Tissawewa, Nuwarawewa, Ridibendiela, Dewahuwa major irrigation areas.

3.9 Trained 100 Farmers on Bee Keeping and 35 Farmers started bee keeping.

3.10 In addition to that 10,000 tissue cultured plants of Pineapple were planted in Rajanganaya Major Irrigation Scheme under the lift irrigation facilities and a Field trial, first time in Sri Lanka.

3.11 Enhancing the Agricultural productivity in major Irrigation schemes following Training programmes were conducted for the capacity building of farmers.

Training program	Number of farmers	
	Target	Progress
1. Field experience sharing	900	398
2. Other Field Crops Cultivation and quality seed production	1,050	1,885
3. Parachute method	1,405	551
4. Milk Production	70	90
5. production of Organic fertilizer	820	474
6. On farm water management	685	308
7. Bee Keeping Training	100	100
8. Others	3,585	2006
<b>Grand total</b>	<b>8,615</b>	<b>5,912</b>

#### 4. Strengthening integrated and participatory management process to improve the Capacity of Officers

##### 4.1 Local training

Training Program	No. of participant
Introduction Training program for Development Officers(DO)	45
Financial Management Training program for Development Officers	40
Progress Review workshop for Resident Project Managers (RPM)	40
Drivers Training on Vehicle Maintenance	17
In-service training for Development Assistant	27
Training on Office Management and Financial Regulation for Head Office Staff	32
Other Training	04

##### 4.2 Foreign Training

4 Officers Participated Foreign Training programs conducted in China, Japan, and India

#### 5. Attending Public Grievances / Complaints

Below mention is the attending of public grievances / complains received from head office and field office

❖ No. of grievances / complains received	2075
❖ No. of settled grievances / Complains	1892
❖ No. of unsettled grievances / Complains	183

### **3. Water Resources Board**

#### **01. Dam Safety and Water Resources Planning Project**

##### **1.1 Awareness Programme on Groundwater Studies**

###### **Awareness at Jaffna Peninsula**

An Awareness programme was held on 27<sup>th</sup> March 2014 at GA office, Jaffna with the chairman ship of GA Jaffna. The participants were mainly from the government institutions and NGO's who are working in the water sector of the Jaffna region. The activities conducted by the Water Resources Board in Jaffna peninsula was presented to the participants.

A discussion was also held with the special emphasis on the protection plan to be implemented through a review-committee (Jaffna District Water Management committee), with the aim of protecting the groundwater sources in the region. The awareness posters, leaflet and WRB Newsletter were distributed among the participants to be displayed at their working place and other public gathering places.

According to the findings of the research activities carried out at the Kalpitiya Secretariat Division by the Water Resources Board, was presented. The current issues of groundwater quality in the Kalpitiya area was highlighted and action was taken to implement a groundwater protection plane to improve the quality of groundwater in the region.

While conducting all these programs, a protect plan was developed for each area with an intention of protecting groundwater qualitatively and quantitatively.

#### **02. Treasury Grant Projects**

##### **2.1 The Study on the Possible Direct and Indirect Impact of Climate Change in Costal Aquifer System of Sri Lanka**

###### **2.1.1 Data collection**

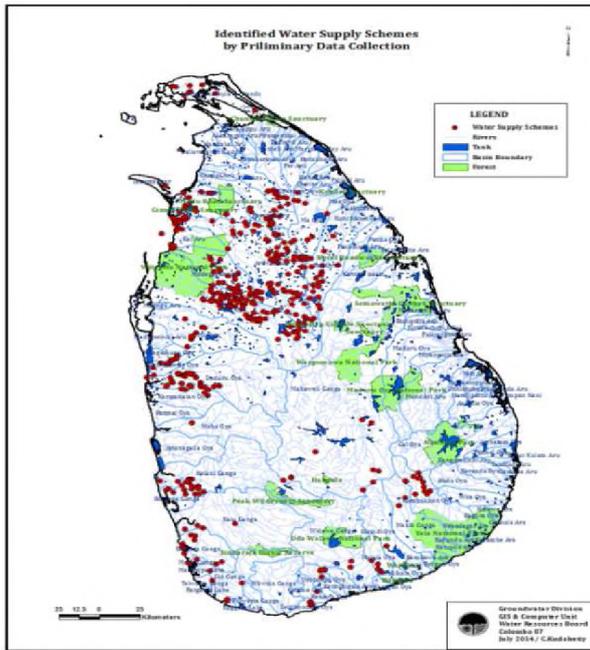
Under this study preliminary data collection was done on Water Supply Schemes and covering other high water extraction points in selected basins and selected districts. These points were selected

targeting coastal aquifers as well as regional aquifer types. List of selected basins and Divisional Secretaries have been shown as follows.

Basin/ District	Water Supply Schemes Areas
Basin	AruvuAru Basin Kala Oya Basin ModeragamAru Basin
Trincomalee District	Town & Gravets DS, Kinniya DS, Mutur DS, Tampalakamam DS
Puttalam District	Kalpitiya DS, Chilaw DS, Pallama DS, Arachchikattuwa DS, Anamaduwa DS, Nawagaththegama DS
Mannar District	Mannar DS, Musali DS, Manthai west DS
Hambanthota District	Weeraketiya DS, Lunugamvehera DS, Katuwana DS, Beliatta DS, Hambanthota DS,
Matara District	Dikwella DS
Ampara District	Ampara DS, Dehiaththakandiya DS, Padiyathalawa DS, Kalmunei DS
Jaffna District	Jaffna DS, Nallur DS, Valigamam East, Valigamam South
Colombo District	Padukka DS, Dehiwala-Mt. Lavinia DS, Homagama DS, Kaduwela DS, Maharagama DS, Kesbewa DS
Gampaha District	Gampaha DS, Divulapitiya DS, Dompe DS, Minuwangoda DS, Katana DS, NegamboDS, Ja-Ela DS, Biyagama DS, Wattala DS, Mahara DS

*Selected areas for detail data collection*

Under the detail data survey programme, the data on groundwater sources such as Geographic coordinates, no of families benefitted from the groundwater source, daily water usage, water yield, technical information of the groundwater source etc. were collected. Simultaneously, the main data base was updated and the existing maps were updated and new maps were prepared.



water supply schemes and other water extracting points in large scale

## 2.2 Water Quality Changes in Aquifer Systems and Identification of Zones with Hazardous Minerals Containing in Water in Anuradhapura district

The main objective of the study was to identify the water quality distribution in surface and groundwater sources in the Malwathu-Oya, Yan- Oya, Kala-Oya, Modaragamaru and Ma-Oya river basins.

Under this project following activities have been conducted during the period from January to July, 2014.

S.No.	Item/Activity	No. of items
01	Hydrogeological and geophysical investigations to locate most suitable sites for construction of test bore-holes	12
02	Construction of test bore-holes	11
03	Collection and Analysis of water samples	32
04	Monitoring of wells	18
05	Preparation and up grading data base and maps	



**Test well constructed at Malwathu Oya basin for monitoring purpose**

### 2.2.1 Training Programmes and Water Clinics

Water Resources Research & Training Centre, Korakaha wewa was undertake awareness and Water Clinic programs for grass root level officials and rural people to aware them on water related health hazards.

#### 2.2.1.1 Three-day Residential Awareness Programmes

Three-day residential awareness programs were conducted at the centre for government officers at grass-root level. Development officers, Grama Niladharies, Midwives, Agricultural Research & Development officers and Samurdhi Development officers were attended for these programs. Four number of programs were conducted during the period from January to July, 2014 and 93 Government officers were attended for the program. Different subjects related to water have been introduced to participants by Water Scientists and Medical professionals from different fields.

**The details of participants are as follows:**

Designation	No. of officers
Grama Niladhari	14
Mid wives	06
Samurdhi Development Officer	14
Agricultural Development Officers	11
Development officers	48

### 2.2.1.2 Water Clinics (Jala Sayana)

With the help of the trained officers, water clinic programmes were organized in village level. From January up to July 2014, five water clinics (community base awareness programs) were conducted in the most affected DS divisions in the Anuradhapura district.

D.S. Division	Place/Location	No. of Participants attended	No. of water sample analysed	No. of filters distributed	No. of clay pots distributed
Galenbindunuwewa	Ellawewa	63	102	30	-
Mahavillachchiya	Thanthirimale Hospital	28	42	10	03
Mahavillachchiya	Kiralmatiyawa	184	115	40	12
Ipalogama	DS office	58	64	12	15
Kahatagasdigiliya	Kudapattiya	133	165	20	15

Water Clinic at Ellawewa, Galenbindunuwewa

## 2.3 Hydrogeological Study in Vavuniya and Kilinochchi Districts

### 2.3.1 Vavuniya District

The project objective was to identify the aquifer parameters, its extension and finally the demarcation of groundwater potential zones within the Vavuniya district. Specific objectives of the study are to identify groundwater potential zones and to see the possibilities of groundwater sources for future drinking water and small scale irrigated agricultural projects.

Under this project following activities have been conducted during the period from January to July, 2014.

S. No.	Item/Activity	No. of items
01	Hydrogeological and geophysical investigations to locate most suitable sites for construction of test bore-holes	08
02	Construction of test bore-holes	08
03	Collection and Analysis of water samples	08
04	Preparation and up grading data base and maps	



Test well drilling at Vavuniya

### 2.3.2 Kilinochchi District

The following activities have been carried out in Kilinochchi district for the above mentioned period.

<u>Activity Physical</u>	<u>Quantity</u>
1. Sample Collection and Analysis- (Dry season-July/2014)	18 Nos.
2. Hydro geological and Geophysical Investigations	03 Nos.

### 2.4 Jaffna Well Monitoring Project

The following activities have been carried out under the Jaffna Well Monitoring Project for the above mentioned period.

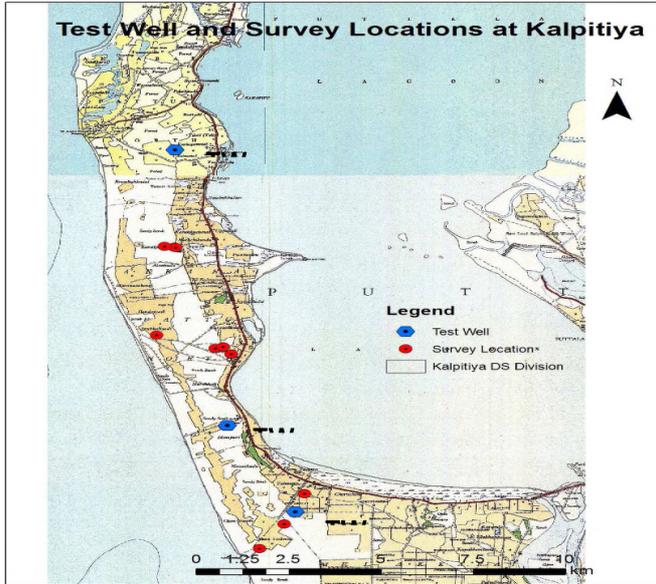
<u>Activity Physical</u>	<u>Quantity</u>
1. Sample Collection and Analysis- (wet season 2014)	96 Nos.
2. Hydro geological and Geophysical Investigations	18 Nos.
3. Test well Drilling	06 Nos.

### 2.5 Identification of suitable areas for groundwater recharge in Sri Lanka

The main objective of the project was to identify the aquifer parameters, its extensions and identify the possibility of recharging the groundwater system in Puttalam area.

The desk study was done by using topographical maps, geology maps, and existing tube well data of WRB data base and other relevant reports. The base maps were prepared using Arc GIS software, including well location, land use, Geology, chemical distribution etc. Geophysical surveys have been conducted and three test bore holes were constructed in Kalpitiya area.

Carry out geophysical investigation



Test wells and Survey locations at Kalpitiya area



Test well construction activities in Kalpitiya Mampuri area

## 2.6 Hydrogeological Study On Coastal Sandy Aquifer Extending From Colombo To Negombo

The following activities have been carried out from January up to July 2014. The main concerned activities of the project were well leveling, water sampling and chemical analysis, geophysical investigations and construction of shallow bore holes. 42 number of wells were leveled around J-Ela, Katana, Kandana, Minuwangoda and Negombo using differential GPS and analyzed all measurements with Leica Geo Office 8.1 software.



Leveling equipment



Leveling of the wells

Water samples were collected from 138 wells around Ja-Ela, Katana, Negombo, Kandana, Minuwangoda and Wattala. The Well data and water level measurement of relevant wells were noted down.

Full Laboratory analyses were performed on collected water samples. In this regard Appearance, Colour, Temperature, Turbidity, pH, Electrical Conductivity, total Hardness, total Alkalinity, Total Dissolved Solids, Calcium, Sodium, Potassium, Magnesium, total Iron, Chloride, Sulphate, Fluoride, Salinity, Nitrate, Phosphate, Nitrite and Ammonia is measured in the samples.

Ten number of geophysical investigations (Resistivity Survey) were conducted in Wattala, Mabile, Andiambalama and Ethgala areas and five number of test wells were constructed.

Detailed 24 hours pumping test for 03 wells were conducted at Bolawalana, Wattala and Pitipana. In this context, Calibration test, Step test and constant test was conducted in proper way to identify aquifer characteristics of the area.



Carrying out pumping tests

## 2.7 Hydrogeological Study in Mannar District (MAN/TG)

Under the Mannar study, technical data of the existing wells (total Depth, Diameter, Water Level, Electrical Conductivity and Nitrate) were measured in the field. Considering the geological condition of the area 55 number of Water samples Were collected for quality testing.

### Well leveling

To identify the groundwater flow direction of the area, leveling was done in 60 points as indicated in the following map. The 40 numbers monitoring points were levelled up to now and rest will be completed within the year 2014.

35 number of geophysical surveys were carried out in the selected locations by considering the hydrogeological and geological conditions of the area. The most favourable 20 sites were selected for test bore holes drilling.



Geophysical surveys done in Mannara area

## **2.8 Water Quality Study in CKD Prevailing Area**

### **(A) Polonnaruwa & Trincomalee Districts**

The main project objective of the study was to identify the water quality in different water sources in CKDu affected areas in Polonnaruwa and Trincomalee districts. Under this project relevant data of CKDu patients were collected from Provincial Health Department of Polonnaruwa and Trincomalee districts. The Sociological survey including water sample collection were commenced in different drinking water sources in Polonnaruwa district. 40 number of water samples were collected and analysis is in progress.

### **(B) Moneragala, Badulla and Hambanthota Districts**

Data on CKD patients have been collected in the above districts. The water sources they use for drinking purposes were identified. Under the phase I of the study 21 hand pump fitted tube wells were constructed for needy people in Badulla district. The samples collected were analyzed for heavy metals. Awareness on water related disease was conducted commemorating the World Water day.

Under the treasury grant projects 347 samples were analyzed by the laboratories of Colombo, Puttalam, Anuradhapura and Jaffna.

**03. Generated Funds****COMMERCIAL ACTIVITIES**

The following commercial activities were performed by the Water Resources Board from January up to July 2014.

<b>No</b>	<b>Item</b>	<b>Amount</b>
1	Hydrogeological Surveys	292 Nos.
2	Tube Well Construction	91 Nos.
3	Hand Pump Installation	14 Nos.
4	Pumping Test	119 Nos.
5	Tube Well cleaning	49 Nos.
6	Analysis of Water Sample	2205 Nos.
7	Installation of Iron Removal Plant	15 Nos.
8	Hand pump basins	04 Nos.

## 5. Central Engineering Consultancy Bureau

### Achievements up to the end of December 2014

#### Consultancy Division

##### 1. Northern Roads Rehabilitation Project (NRRP)

Package/Description		Contract Sum LKR	% Physical Progress	Remarks
C1A	Kandy – Jaffna Road (A009) between Galkulama and 230km post	9,592,082,089.00	100	Project Completed before the target
C1B	Kandy – Jaffna Road (A009) between 230km post and Jaffna	9,532,917,911.00	100	Project Completed before the target
C2	Navatkuli – Karaitivu – Mannar Road (A032)	6,532,500,000.00	100	Project Completed before the target
C3	Puttlam – Marichchikade – Mannar Road	9,887,500,000.00	98.3	Project in progress
C7	AB16, AB18, AB20 & AB32 Roads in Jaffna	10,185,000,000.00	100	Project Completed before the target
C11	Paranthan – Mulativu Road (A035)	5,700,000,000.00	100	Project Completed before the target
C11A	Mulativu – Kokilai – Pulmudai Road (B297)	5,777,446,236.00	100	Project Completed before the target
C11B	Oddusudan – Nedunkerny Road (B334) & Mulativu – Puliyankulam Road (B296)	5,741,303,764.00	100	Project Completed before the target
<b>Overall NRRP</b>		<b>62,948,750,000.00</b>	<b>99.7</b>	<b>Project in progress</b>

## 2. Local Bank Funded Roads Rehabilitation Project (LBFP)

Package/Description		Contract Sum LKR Billions	% Physical Progress	Remarks
C1	Nagoda-Neboda & Awitthawa-Lewanduva Roads	3,199,475,266.71	54	Project in progress
C2	Naula-Elahera-Pallegama-Hettipola & Hasalaka - Handungamuwa Roads	3,223,310,033.55	12	Project in progress
C3	Haputhale – Boralanda – Keppetipola Road	2,445,441,396.83	32	Project in progress
C4	Bodagama-Hambegamuwa-Kalthota Road	3,915,946,330.81	70	Project in progress
<b>Overall LBFP</b>		<b>12,784,173,027.90</b>	<b>44.2</b>	<b>Project in progress</b>

## 3. Reconstruction of Northern Railway Lines

Package/Description	Total Cost of the Works LKR Billions	% Physical Progress
Medawachchiya to Madhu Road	10.6	100
Omanthai to Pallai	24.0	100
Madhu Road to Thalaimannar	19.5	95.0
Pallai to Kankasanthurai	19.4	95.0
Signaling and Telecommunication Project	11.2	88.0

## 4. Matara – Katharagama Railway Extension Project

- Matara – Beliatta Sector: 52.0% completed. The total cost of works is Rs.36 Billion.

**5. Mahindodaya Technological Laboratory Project**

- Under Phase I of this programme 405 laboratories have been completed out of 407.
- Under Phase II of this programme 363 laboratories have been completed out of 414.

**6. Defense Headquarters Complex (DHQC) at Akuregoda**

- Central Engineering Consultancy Bureau is responsible for the provision of engineering, quantity surveying and construction management services for this massive project, the total cost of which is Rs.77 billion. The project is progressing well toward achieving its targets. Physical progress achieved at the end of 2014 is 35%.

**7. Construction of Housing Project at Sirimavo Bandaranayake Mawatha, Colombo 14**

- Successfully completed. The total cost of this project is Rs. 1,350 Million.

**Construction Division**

**1. Construction of District General Hospital, Hambantota**

- The contract for the construction of this ten storied 850 bed hospital was successfully secured through competitive bidding with private sector companies. The total project cost is Rs.1, 654 million. The project is progressing well toward achieving its targets. The physical progress achieved at the end of July 2014 is 70%.

**2. Construction of Academic Buildings for the Eastern University, Sri Lanka at Chenkalady, Batticaloa**

Successfully completed the construction of following building complexes.

- Construction of Building Complex for the Library.
- Construction of Building Complex for the Faculty of Arts & Culture.
- Construction of Building Complex for the Department of Zoology, Faculty of Science.

The total cost of construction of above three building complexes is Rs. 376 million.

**3. Design and Construction of Bridge Across Huluganga in Panvila Pradeshiya Sabha Division, Central Province**

- Successfully completed the construction of above bridge at a total cost of Rs. 34 million.

**4. Construction of Sports Complex at Digana**

- Successfully completed the construction of above sports complex comprising a play ground, a swimming pool and a pavilion, at a total cost of Rs.206 million.

**5. Construction of Toll Gates and Toll Office Building at Weligama Interchange for Southern Expressway, South Section**

- Total cost of this project is Rs. 275 million. This project was completed within five months.

**6. Construction of Four Storied Ward Complex for General Hospital, Polonnaruwa**

- Successfully completed the construction of this Rs.350 million project.

**7. Construction of Police Station in Jaffna**

- The total cost of this project is Rs.263 Million and achieved physical progress is 79%.

**8. Renovation of Railway Station, Jaffna**

- Successfully completed the construction of this project. Total cost of renovation is Rs. 128 Million.

**Awards**

- The Central Engineering Consultancy Bureau (CECB) was awarded the "World Centre of Excellence on "Landslide Disaster Reduction 2014-2017" under the theme of "Model Policy Frameworks, Standards, & Guidelines" by the Global Promotion Committee of the International Consortium of Landslide.
  
- The Central Engineering Consultancy Bureau (CECB) was awarded the "Engineering Excellence Award for Consultancy Services" by the Institution of Engineers, Sri Lanka for year 2014.