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நீர்ப்பாசன மற்றும் நீர் வளங்கள் முகாமைத்துவ அமைச்சு  
MINISTRY OF IRRIGATION & WATER RESOURCES MANAGEMENT



වාර්ෂික කාර්යසාධන වාර්තාව  
வருடாந்த செயற்திறன் அறிக்கை  
ANNUAL PERFORMANCE REPORT

2017

# Annual Performance Report 2017



Ministry of Irrigation & Water Resources Management

## **Message of the Secretary to the Ministry of Irrigation and Water Resources Management**

Ministry of Irrigation and Water Resources Management had taken steps to fulfil prevailed manpower shortage in 2016 and therefore expected to achieve high performance during year 2017.

Total approved allocation to the Ministry for 2017 was approximately Rs 25.12 billion, including the provisions received through budget estimate and supplementary allocation for budget proposals. The financial progress at the end of the year was 87%, including the bills that were not settled due to the non-receipt of imprest 93% progress of Irrigation Department, 99% progress of Water Resources Board and 88% progress of Irrigation Management Division contributed toward this achievement.

Considering cultivation performance in 2017, cropping intensity was 1.31 which was the lowest reported after 13 years in medium and major irrigation schemes. It is with hard work by the officers of Irrigation Department in day and night through proper water management that even this performance could be achieved amidst unexpected severe drought prevailed. The support given by the farmer organizations under the guidance of Irrigation Management Division for water management in major irrigation scheme was commendable. Thus, even in an unfavourable condition of North East monsoons were not received in full for Maha season 2016/2017, a performance rate of 74% could be achieved from the total irrigable extent. In yala season 2017, irrigated cultivation in dry zone was minimum due to low water capacity prevailed in reservoirs with lower rainfall received during previous season. Thus, only 54% of total irrigated land could be cultivated in 2017 Yala season. Timely actions taken with pumping of water to avoid crop failures could achieve even this performance.

Allocation received for Thalpitigala Reservoir project and Establishment of Ground Water Monitoring system project was Rs 3300 Million. But construction works could not be commenced due to delay in finalizing foreign funding agreement till December 2017. However for Thalpitigala project, preliminary design works including the recruitment of project staff could be achieved. It is proposed to commence those two projects in 2018.

Climate Resilience Improvement Project achieved 84% of financial progress for allocation of Rs 3,209 Million. The cumulative physical progress was 58% at the end of the year. Additional Financing project of Climate Resilience Improvement Project achieved 100% of financial progress under budgetary allocation of Rs 593 Million and overall physical progress at the end of the year was 42%.

Lower Malwathu Oya Reservoir Project is also an important project implemented under the Ministry. Final Environmental Impact Assessment report had been submitted to the Central Environmental Authority for approval by the end of the year. The feasibility study was in progress and project to be continued in 2018.

Yan Oya project is one of the major projects implemented under the Irrigation Department and it achieved an overall physical progress of 70% by the end of 2017 as a result of the efficient performance by the China CAMC Engineering Co. Ltd. The direct contract of Design and Built of the Left Bank Main Canal of the Yan Oya project was awarded to the China CAMC Engineering Co. Ltd in December 2017. Construction of Right Bank Main Canal is being carried out by the Irrigation Department. It is expected to complete the project by the second half of 2019.

Furthermore, Gurugal Oya Reservoir Project implemented by the Irrigation Department has been completed and the construction work of Lower Daduru Oya project, Rambukkan Oya, Morana and Kalugal Oya Reservoir projects, Gal Oya Nawodaya and Lower Uva projects have also been completed to a significant extent.

In addition number of development works in other major and medium irrigation schemes under the Irrigation Department were completed taking necessary steps to resolve implementation issues.

It is highly commendable that the Water Resources Board has obtained a financial progress of 100% under the ground water studies and monitoring, at the end of 2017. They could achieve approximately 94% of financial progress for the additional allocation of Rs.78 million released to the Water Resources Board by the Ministry for flood relief measures and other emergency and essential tasks related to water supply.

Irrigation Management Division could implement a large number of programmes such as strengthening farmer organizations under integrated management, community empowerment and participatory water management activities in major irrigation schemes.

Irrigation Department, under the guidance of the Ministry, had directed their special attention to include a number of new projects into the budget estimate in 2018 and taken actions to expedite preliminary works such as recruitment of project staff and environmental studies related to Mundeni Aru Basin Development, Mahaweli Left Bank Lower Basin Development, and Heda Oya Reservoir Project.

Paying a special attention on future investments of the Ministry and future affairs of irrigation field, 03 studies, Environmental Impact Assessment of Gin- Nilwala project, Environmental Impact Assessment and feasibility study of Lower Malwathu Oya project, 02 ground water related studies and surveys for 06 projects had been carried out under feasibility study programme in 2017.

As a whole, Ministry and its affiliated institutions could achieve very good performance in 2017, and I shall thank all the staff who contributed towards this performance.

The leadership and guidance given by Hon Wijith Wijayamuni Zoysa, Minister of Irrigation and Water Resources Management in project implementation, solving related issues as well as seeking approval of the Cabinet of Ministers for future investments of the Ministry is greatly appreciated and I would like to mention thankfully that it was a great strength to the Ministry.

It is with great honour, I thank Hon. Palitha Range Bandara, State Minister of Irrigation and Water Resources Management for his guidance and supervision support in irrigation developments in Puttalam and Mannar districts and in all other affairs of the Ministry.

**Eng. N.A Sisira Kumara**

Secretary

Ministry of Irrigation & Water Resources Management

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## 1. Vision

Prosperous Sri Lanka through sustainable Water Resources Development & Management

## 2. Mission

Providing wellbeing of community & environment by fulfilling multiple water users through Water Resources Development & Management

## 3. Functions of the Ministry

1. Formulation & Execution of Policies, Programs and Projects related to the Ministry and institutions Comes under the Ministry purview
2. Development Water Resources and Irrigation Facilities
3. River Basins and Irrigation Systems Management Including Operation and Maintenance
4. Conservation and Protection of Water Sources and Irrigation Systems
5. Bulk Water allocation for Multiple Uses
6. Control of Pollution of Water sources and ensure quality of Water
7. Prevention of Salt Water Extrusion to inland areas.
8. Drainage and Flood Protection
9. Engineering Consultancy Services
10. Institutional Development and Productivity Enhancement of Irrigation systems
11. Development, Monitoring and Management of Ground Water
12. Conservation of Rain Water and promoting Rain water harvesting programme

## 4. Actual against the forecast in relation to expenditure under Ministry Head 198 and ID Head 282

Form	A	Appropriation Account	}	Head 198
Form	B	Revenue Account		Head 282
Form	C	Advance Account		

CATEGORY : APROPRIATION ACCOUNT Head 198						Form - A						
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2017		Previous Year Actual 2016	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	11,981	1,590	10,917	391	273							
Other Recurrent	14,505	13,158	12,882	1,347	1953							
<b>Project Title and No:</b>												
Administration & Establishment Services 02												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	88,450	87,195	45,386	1,255	11,511							
Other Recurrent	243,420	239,867	30,904	3,553	11,704							
<b>Project Title and No:</b>												
State Minister's Office 11												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	12,668	11,893	12,750	775	782							
Other Recurrent	11,652	10,505	13,570	1,147	2,623							
<b>Total</b>	<b>382,678</b>	<b>374,209</b>	<b>126,410</b>									

CATEGORY : APROPRIATION ACCOUNT Head 198

Form - A

Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2017		Previous Year Actual 2016	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>												
Development Activities 02												
<b>Project Title and No:</b>												
Inter provincial irrigation Development Programmes 03												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	125,684	124,622	111,218	1,062	4,682							
Other Recurrent	26,508	25,421	15,738	1,087	3,537							
<b>Project Title and No:</b>												
Irrigation Institutions & Development Programmes 04												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments												
Other Recurrent												
	<b>152,192</b>	<b>150,043</b>	<b>126,956</b>									



CATEGORY : APROPRIATION ACCOUNT 198			Form - A									
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year 2017		Previous Year Actual 2016	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>Capital Expenditure</b>												
Operational Activities 01												
Minister office 01	45,679	42,849	3,040	2,830	43,310							
Administration & Establishment Services 02	68,348	62,088	81,751	6,260	26,749							
State Ministers Office 11	45,883	43,059	3,349	2,824	13,151							
Development Activities 02												
Inter provincial irrigation Development Programes 03	9,512,513	5,176,678	5,062,473	4,335,835	7,969,802							
Development programme of irrigation institutions 04				34,002	998							
<b>Total Expenditure</b>	<b>9,672,425</b>	<b>5,324,676</b>	<b>5,150,615</b>									

**CATEGORY : APPROPRIATION ACCOUNT**

**FORM : A**

DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year 2017		Previous Year Actual 2016	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 – Minister’s Office</b>												
Expenditure												
Recurrent Expenditure												
Personal Emoluments	11,981	11,590	10,917	391	273							
Other Recurrent	14,505	13,158	12,882	1,347	1,953							
<b>Total</b>	<b>26,486</b>	<b>24,748</b>	<b>23,799</b>									
Capital Expenditure												
2001	250	250	253.5	0	247	(a)						
2002	100	50	156.7	50	44	(b)						
2003	1,150	1,150	1,150	0	0	(c)						
2101	43,000	40,219.67	0	2,781	43,000	(d)						
2102	679.8	679.8	980.5	0	20	(e)						
2103	500	500	500	0	0							
<b>Total</b>	<b>45,679.8</b>	<b>42,849.47</b>	<b>3,040.7</b>									

- (a) Rehabilitation & Improvements of Building & structures
- (b) Rehabilitation & Improvements of Plant Machinery & Equipment
- (d) Acquisition of Furniture & office equipment
- (e) Acquisition of Building & structures

CATEGORY : APPROPRIATION ACCOUNT

FORM : A

DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual 2015	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 <span style="color:red">Project 02 - Administration &amp; Institutional Service</span></b>												
Expenditure												
Recurrent Expenditure												
Personal Emoluments	88,450	87,196	45,386	1,254	664							
Other Recurrent	243,420	239,867	30,904	3,553	11,704							
<b>Total</b>	<b>331,870</b>	<b>327,062</b>	<b>76,291</b>									
Capital Expenditure												
2001	18,773	18,637	1,000	136	4,000	(a)						
2002	405	405	250	0	0	(b)						
2003	4,150	2,950	440	1,200	560	(c)						
2106	500	148	0	352	0	(d)						
2102	4,483	4,365	1,911	118	1,989	(e)						
2103	2,287	1,789	350	498	0	(f)						
2401	3,000	1,669	3,000	1,331	0	(g)						
2401-1	4,150	4,087	74,800	63	20,200							
<b>Total Expenditure</b>	<b>37,248</b>	<b>33,902</b>	<b>81,751</b>									

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

- (e) Acquisition of Furniture & office equipment
- (f) Acquisition of plant machinery & equipment
- (g) Staff Training



CATEGORY : APPROPRIATION ACCOUNT

FORM : A

DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year	Variations Over		Output Service/Goods		Current Years Output		Previous	Variations over	
	Budgeted	Actual	Actual 2015	Budgeted	Previous Year Actual	Type/ Class	Measure	Targeted	Actual	Year Output	Targeted	Previous Year's Actual
<b>Programme 02- Deveopment Activities Project 03 – Inter-provincial Irrigation development Programme</b>												
Expenditure												
Recurrent Expenditure												
Personel Emoluments	125,684	124,62	111,218	1,062	4,682							
Other Recurrent	26,508	25,421	15,738	1,087	3,537							
<b>Total</b>	<b>152,192</b>	<b>150,04</b>	<b>126,956</b>									
Capital Expenditure												
2001												
2002												
2003												
2102												
2104												
2105												
2401												
2502-14-(11)												
2502-16-(12)												
2502-16-(17)												
2502-18-(11)												
2105-8-(11)												
2502-11-(11)												
2502-8-(11)												
2502-9-(11)												
<b>Total Expenditure</b>												

**CATEGORY : APPROPRIATION ACCOUNT**

**FORM : A**

DESCRIPTION	Financial Performance ( Rs, in'000')					Physical Performance						
	Current Year		Previous Year Actual 2016	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 01- Operation Activities</b>												
<b>Project 11 – State Minister’s Office</b>												
Expenditure												
Recurrent Expenditure												
Personel Emoluments	12,688.5	11,893	12,750	775	782							
Other Recurrent	11,652.8	10,505	13,570	1,147	2,623							
<b>Total</b>	<b>24,341.3</b>	<b>22,398</b>	<b>26,320</b>									
Capital Expenditure												
2001	633	622	500	11	0							
2002	100	95	200	5	0							
2003	1,150	1,121	1,149	29	151							
2101	43,000	40,219	0	2,781	0							
2102	500	500	1,000	0	0							
2103	500	500	500	0	0							
<b>Total Expenditure</b>	<b>45,883</b>	<b>43,059</b>	<b>3,349</b>									

**CATEGORY : REVENUE ACCOUNTS**

**HEAD 198**

**Form - B**

Description	Financial Performance (Rs.In '000)							Physical Performance						
	Areams of Revenue As At 01.01.2014	Current Year 2017		Previous Year Actual 2016	Variation Over		Areams of Revenue As At 01.01.200*	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
Revenue Codes														
20.02.01.01		400	449	1,824			No							
20.02.02.99		720	373	1,023										
20.03.99.00		60	4,847	8,959										
2003.04.00		-		-										
2004.01.00		-		4,405										
<b>Total Revenue</b>		<b>1,180</b>	<b>5,669</b>	<b>15,605</b>										

CATEGORY : ADVANCE ACCOUNTS		HEAD 198		Form - C								
Description	Financial Performance (Rs.In '000)				Physical Performance							
	Current Year 2017		Previous Year Actual 2016	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 198011												
Maximum Expenditure Limit	25,000	20,948	8,474									
Minimum Receipt Limit	7,000	11,224	6,964									
Maximum Debit Limit	54,000	34,470	24,746									
Maximum Liability												
Financial Results												

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	548,200	520,017	528,437	-27,254	-8,420		%	100	94.86	91.83	-5.14	3.03
Other Recurrent	113,108	111,603	94,029	15,603	17,574		%	100	98.67	96.44	-1.33	2.23
<b>Total</b>	<b>661,308</b>	<b>631,620</b>	<b>622,466</b>	<b>-11,651</b>	<b>9,154</b>							
Capital Expenditure												
2001	30,000	29,664	29,314	-5,717	350	(a)	%	100	98.88	82.07	-1.12	16.81
2002	1,000	1,000	817	183	183	(b)	%	100	100.00	100.00	0.00	0.00
2003	5,598	5,271	4,857	698	414	(c)	%	100	94.16	99.12	-5.84	-4.96
2102	5,249	4,926	4,886	363	40	(d)	%	100	93.85	100.00	-6.15	-6.15
2104	0	0	0	0	0	(e)	%	0	0	0	0	0
2401	4,000	3,893	2,410	1,503	1,483	(f)	%	100	97.33	96.52	-2.68	0.80
<b>Total</b>	<b>45,847</b>	<b>44,754</b>	<b>42,284</b>	<b>-2,970</b>	<b>2,470</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



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	2,467,937	2,065,561	2,160,885	218,916	-95,324			100	83.70	96.08	-16.30	-12.38
Other Recurrent	150,810	132,781	85,766	60,440	47,015			100	88.05	94.90	-11.95	-6.85
<b>Total</b>	<b>2,618,747</b>	<b>2,198,342</b>	<b>2,246,651</b>	<b>279,356</b>	<b>-48,309</b>							
Capital Expenditure												
2001	1,927,561	1,785,637	1,590,756	237,561	194,881	(a)	%	100	92.64	94.13	-7.36	-1.49
2002	83,625	82,372	75,537	3,625	6,835	(b)	%	100	98.50	94.42	-1.50	4.08
2003	36,319	34,940	39,153	-5,681	-4,213	(c)	%	100	96.20	93.22	-3.80	2.98
2101	0	0	0	0	0	(d)	%	0	0	0	0.00	0
2102	18,853	18,411	18,004	849	407	(e)	%	100	97.66	100.00	-2.34	-2.34
2103	256,849	241,423	109,348	16,849	132,075	(f)	%	100	93.99	45.56	-6.01	48.43
2104	51,956	36,338	38,841	1,956	-2,503	(g)	%	100	69.94	77.68	-30.06	-7.74
2401	30,000	29,615	0	30,000	29,615	(h)	%	100	98.72	0.00	-1.28	98.72
2502	0	0	158,415	-185,496	-158,415	(i)	%	0	0.00	85.40	0.00	-85.40
2503	6,500	3,453	0	6,500	3,453	(j)	%	100	53.12	0.00	-46.88	53.12
2505	5,900	3,779	0	5,900	3,779	(k)	%	100	64.05	0.00	-35.95	64.05
2507	173,098	151,388	0	173,098	151,388	(l)	%	100	87.46	0.00	-12.54	87.46
<b>Total Expenditure</b>	<b>2,590,661</b>	<b>2,387,356</b>	<b>2,030,055</b>	<b>285,161</b>	<b>357,301</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) Staff training
- (i) Other Investment
- (j) Contingency services
- (k) Procurement preparedness
- (l) Research Development

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	8,626,154	6,904,276	8,020,417	2,207,616	1,116,141	(a)	%	100	80.04	74.03	-19.96	6.01
<b>Total Expenditure</b>	8,626,154	6,904,276	8,020,417	2,207,616	1,116,141							

(a) Major Irrigation Scheme

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 04 - Medium Irrigation schemes</b>												
Expenditure												
Recurrent Expenditure												
Personel Emoluments	-	-	-	-	-							
Other Recurrent	-	-	-	-	-							
<b>Total</b>	-	-	-	-	-							
Capital Expenditure												
2105	366,467	262,428	260,973	-22,593	1,455	(a)	%	100	71.61	67.08	-28.39	4.53
<b>Total Expenditure</b>	366,467	262,428	260,973	-22,593	1,455							

(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> Rent on Government Buildings	-	12,000	13,866	12,678	0	1,188		%	100	115.55	118.71	15.55	-3	
<b>20.02.02.99</b> Interest - Other	-	14,000	16,529	14,402	500	2,127		%	100	118.06	96.02	18.06	22	
<b>20.03.02.99</b>	-	0	0	0	0	0		%	0	0	0	0	0	
<b>20.03.04.00</b>	-	0	0	0	0	0		%	0	0	0	0	0	
<b>20.03.99.00</b> Other Receipts	-	15,000	63,255	73,869	-5,000	-10,614		%	100	421.70	369.35	321.70	52	
<b>20.04.01.00</b>	-	0	0	0	0	0		%	0	0	0	0	0	
<b>20.06.02.00</b> Sales of capital assets	-	10,000	193	21,440	-6,000	21,247		%	100	1.93	214.40	-98.07	-212	
<b>Total</b>		<b>51,000</b>	<b>93,843</b>	<b>122,389</b>	<b>-10,500</b>	<b>13,948</b>								

**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	210,000	208,971	147,804	1,029	61,167		%	100	99.51	99.87	-0.49	0
Minimum Receipt Limit	140,000	140,951	138,388	951	2,563		%	100	100.68	131.80	0.68	-31.12
Maximum Debit Limit	600,000	433,923	366,275	166,077	67,648		%	100	72.32	73.26	-27.68	-0.94
Maximum Liability	-	-	-	-	-			-	-	-	-	-
Financial results	-	-	-	-	-			-	-	-	-	-

## 5. Special Projects under the Ministry

### a. Climate Resilience Improvement Project (CRIP)

#### Vision

“To build a more climatic resilient economy through long term institutional arrangement to convene agencies that compete for water resources and ensure sustainability and resilience of major investments”

#### Mission

“To strengthening climate risk management through better information, timely financing, contingency funds, and enhancing the capacity to enabling policies and strategies support resilience planning for long term sustainability of investment”

### 1. 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.

### 2. Project Financing

The project is fully financed by WB-IDA for 4 project components by allocating USD 110 million equivalents to Rs. 14,382 million under original project and another USD 42 million equivalent to Rs 5,880 million as Additional Financing for implementation of activities identified under original project as well as Additional Financing. In addition, 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 with project implementation under each Implementing Agency (IA).

### 3. Project Components

Project Development objectives will be achieved through evidence-based investment of project funds for 4 components.

### **3.1 Component 1: Development of basin investment plans**

Under this component project supports to carry out detail modeling of flood and drought risk in ten river basins identified on priority basis to develop comprehensive basin wide investment plans that incorporate competing risks of both flood and drought. The analytical work under this component will serve as a basis for future climate resilience investments and will help the government to understand risk and adopt the required risk mitigation measures.

### **3.2 Component 2: Increase climate resilience of Infrastructure**

Project supports to implement urgent climate risk mitigation investments identified and prioritized to i) implement immediate flood and drought risk mitigation works of hydraulic infrastructure in downstream of dams such as canals, flood bunds & diversion structures, ii) reduce risks to interruption of transport continuity due to floods & landslides and iii) protects schools from landslide risks.

In addition, both GOSL and IDA-WB agreed to scaling up of the component 2 of the project by arranging Additional Financing for the project to implement the rehabilitation works in hydraulic infrastructures identified by ID and MASL as well as road side slope stabilization work identified by Provincial Road Development Department (PRDD) in Uva Provincial road network which were damaged as a result of December 2014 floods.

### **3.3 Component 3: Project Implementation and Monitoring & Evaluation**

The project is implemented through the Project Management Unit (PMU) established under the Ministry of Irrigation and Water Resources Management. PMU is fully established with qualified senior and support staff together with required resources to perform fund management, facilitate project implementation, capacity development and overall project Monitoring and Evaluation.

### **3.4 Component 4: Contingent Emergency Response**

Funds allocated for this component are available to help government respond to adverse natural event that causes disasters. Project has reallocated US 3mn to rehabilitate road structures damaged due to 2017 floods in Kalutara, Galle, Rathnapura and Hambantota.

#### 4. Project Financial and Physical Status in brief

Project has been implemented over 41 months since the commencement of the project on 5<sup>th</sup> August 2014 and up to now, utilized Rs 7,289.1 million out of Rs 14,382 million allocated for the original project including emergency response and achieved 51% financial progress against total allocation and 58% physical progress by 31<sup>st</sup> December 2017. In addition, Rs 593.2 mn (10%) is utilized under Additional Financing (AF) out of Rs 5880 mn which is 10% financial progress and 36% physical progress.

It is notifiable that majority of funds have been utilized for rehabilitation civil works contracts awarded under the project followed by deliverables produced by Implementation Support Consultants (ISC) and procurement of goods such as vehicles, IT equipment and machinery to improve the capacities of IAs.

Project has completed two ICB contracts namely LiDAR survey and Areal photographic survey under component-1 and survey outputs are used as inputs for the development of basin investment plans. Ms WS Atkins International, UK hired as Implementation Support International Consultant (ISC) has been developing pre-feasibility reports for 6 basins and also support and supervise counterpart staff to develop pre-feasibility reports for remain 4 basins under phase 1 of the contract. By end of December 2017, 433 rehabilitation works packages (98%) are awarded out of 439 packages under original project with value of Rs 9,823.5 mn and paid Rs 5,224.6 mn (53%) as mobilization advances and part payment for completed works for contractors. Among the awarded contracts, 179 packages are awarded under Community Participation (CP) with contract value of Rs 248.5 million followed by 225 National Competitive Bidding (NCB) with contract value of Rs 9,106.3 million and 27 National Shopping (NS) packages with contract value of Rs 102.7 million by ID, MASL, RDA and NBRO. There are 6 more NCB packages are still in the procurement process to award by RDA and NBRO.



## 5. Status of project components:

### 5.1 Development of Basin Investment Plans

Under this component, Ms Atkins, UK together with counterpart staff are carrying out effective analysis of flood impact to understand the gravity of problem in order to address long term measure to establish a process that would built a more climatic resilient economy. In this process consultant is assigned to develop 6 basin investment plans which follow the development of 6 Computational Frameworks reports, 6 floods and drought risk assessment reports and 6 pre-feasibility studies (Integrated Flood and Drought Risk Assessment Reports for 6 basins that are prioritized based on the urgency and impacts of the floods in the recent years.

In addition, consultant has given opportunity for counterpart staff to work together with the consultant to enhance their capacity to carry out development of Computational Frameworks, flood and drought risk and pre-feasibility reports for remaining 4 basins under close supervision of consultant. The pre-feasibility reports developed by the consultant in phase 1 of the contract will be further improved as feasibility reports under phase II contract which is already approved by the Cabinet Ministers which will be commence in 2<sup>nd</sup> quarter of 2018. At the end of phase II of Atkins contract 12 feasibility reports will be ready for negotiating with donor agencies to implement with donor funding facilities.

Hence, this will be an entry point of a long-term engagement in disaster risk mitigation in the country with special emphasis to contribute to the broader goal of enhancing adaptive capacity to prevent flood insecurity in the country induced by climate change. Therefore, outputs of this project would serve as a foundation for large scale investments to mitigate flood and drought risks in Sri Lanka in future as CRIP II project which is been negotiated between GOSL and the WB..



Presentation of initial flood mitigation proposal for Lower Kelani basin made by Atkins at the World Bank Implementation Support Mission held in September 2017

- Progress of development of 10 basin investment plans:
  - Ms. Atkins completed computational framework to mitigate frequent flood risks in the Kelani basin and Attanugaluoya basins completed.
  - Cabinet paper prepared to sign 2<sup>nd</sup> phase of ISC contract to with the Ms Atkins to develop feasibility intervention proposals for above 6 basins and supervision of development of remaining pre-feasibility and feasibility proposal for 4 basins (Kalu, Maha oya, Daduruoya, Galoya).

## 5.2 Status of Kelani Flood Mitigation as preparation for CRIP II

Project has initiated several activities related to Kelani flood mitigation based on the interventions identified by the Consultant in their pre-feasibility studies. On request of the Government, the World Bank has given their consent to funding for lower Kelani flood mitigation proposal that will be finalized by the Consultant. In fact, project is in a process of finalizing the mitigation measure for Kelani flood in consultation of higher level officials, political authority and community in the affected areas to find best solution for controlling floods and minimizing its impact to community and properties.

In this process Project has hired the services of University of Colombo (UOC) to conduct social impact survey to gather information from people in the affected area as well as surroundings especially on impact that they have experienced with the recent floods, severity of the impact of the floods and willingness to moving from vulnerable area to more secured and economically attractive area that having with all facilities provided under the project; to develop comprehensive mitigation plan along with Resettlement Action Plan (RAP) which is a prerequisite for planning of project interventions under CRIP II. Phase II of CRIP will be implemented as Multi-Phased Approach (MPA) which comprised of 3 overlapping phases will be implemented over 8 years period. In the 1<sup>st</sup> phase, the WB will finance for urgent flood mitigation work of 1<sup>st</sup> section of lower Kelani basin starting from Hanwella to Kaduwela together with urgent flood mitigation of Mundeniaru basin.

UOC has submitted the inception report to initially conduct a social impact survey in the stretch of 50 ft from both river banks from Hanwella to Kaduwela to develop the socioeconomic profile for the identified community and thereafter inventory census with exactly properties and houses marked as affected party due to construction of flood embankment.

Therefore, project has been developed well-focused Information, Education and Communication (IEC) campaign to provide information on project intervention to educate the people about the project and its proposed interventions to aware stakeholders and empower the community to get their active participation for the finalizing flood mitigation interventions for lower Kelani basin with an aim to get their support for the survey team to conduct the social impact survey and inventory census.

Hence, project has developed set of communication tools and materials to be used for conducting the IEC campaign targeting various audiences including CRIP's stakeholders, Politicians, higher level policy makers, community and affected people.

***Status of activities carried out by the project as preparatory works for CRIP II:***

- Project is in the process of :
  - I. Conducting Strategic Environmental Assessment for Kelani, Attanagalu oya, Mahaweli and Mundeniaru basins: *Draft report for Mudeniaru completed and work in progress for Kelani, Attanagalu and Mahaweli basins.*
  - II. Development of detailed engineering designs: *cabinet paper is prepared to obtain approval to award the contract to Ms. Atkins to expedite the process,*
  - III. Preparation of Resettlement Action Plan (RAP) for the intervention proposed for Kelani basin: *University of Colombo hired to conduct the Socio-economic survey and preparation of Resettlement Action plan for potentially affecting people due to mitigation proposal for Kelani flood*
  - IV. Preparation of Strategic Social Assessment (SSA): *SSA for Kelani basin is in progress*
  - V. conducting IEC campaign: *IEC materials developed to conduct communication campaign with potentially affected people in kelani downstream and officers involved with the Kelani basin's flood related activities before starting the social impact survey.*
  - VI. Conducting of Social Impact survey and inventory census: *University of Colombo ready to commence the social impact survey and inventory census. PMU has conducted awareness campaign with staff of two District Sectaries Colombo and Gampaha and National level.*



Awareness workshop held at GA's conference hall at Gamapaha District Secretariat to aware district, divisional and GN level officers on Kelani Flood mitigation proposals

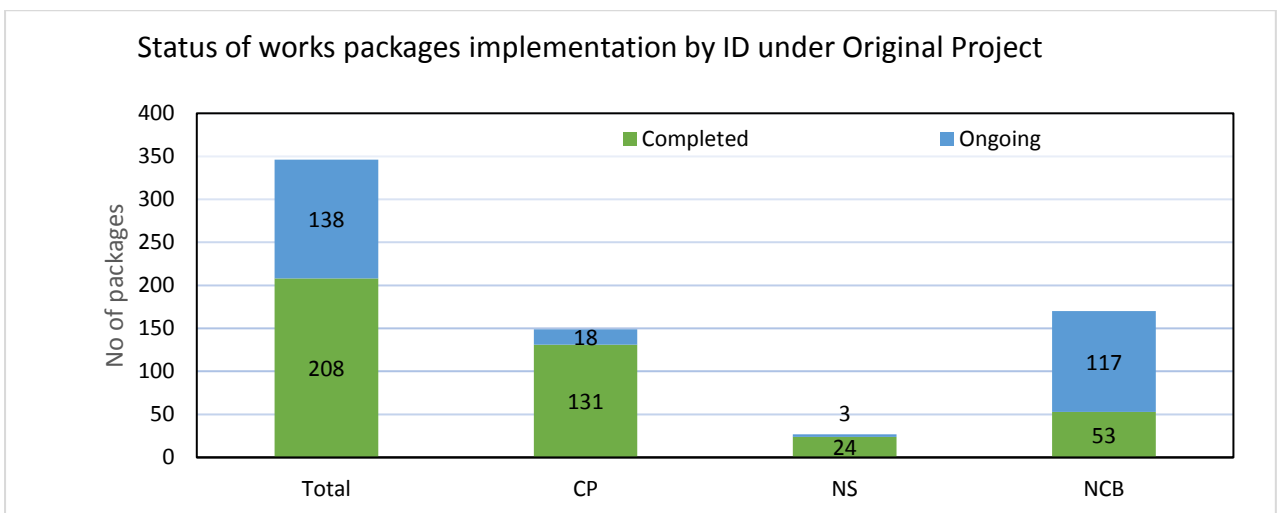
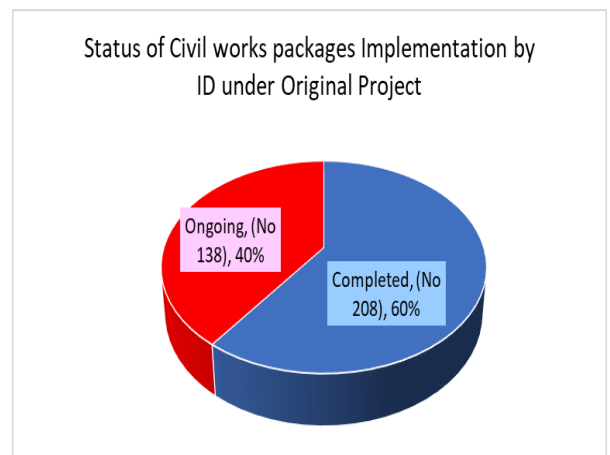


National level awareness workshop held at Taj Samudra hotel to aware on kelani flood mitigation proposals for national level stakeholders

### 5.3 Progress of Component 2 – Increasing Climate Resilience of Infrastructure

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

All together 416 packages identified including AF by ID with an estimated value of Rs 8,137.5 million. Among them 393 contracts are awarded with value of Rs 6,686.5 mn and already paid Rs 2,333.4 mn as mobilization advances and part payments. Most of these contracts are awarded with a view to improve canal bunds, drainage canal, widening of canals and improvement to gates and other structures. Following figure show the status of works packages implemented under the original project by ID. According to the figure, 208 contracts are completed and 138 contracts are in progress.





Improvements to Valathapitty tank & Improvements to spill tail canal to prevent flood damage in Moravil I unit



Reconstruction of Anaivilunthan Anicut in Neethai River in Illukuchenai unit



Improvements to G canals in Gonagolla unit in Ampara



Construction of drop structure G 23.1 Canal in Gonagolla unit in Ampara



Construction of Palamadu channel Rugam scheme in Baticalloa



Construction of Kayanmadu Regulator in Baticalloa



Construction of Nelluchchenai Anicut in Baticalloa



Construction of Shanmugarajah Anicut in Baticalloa



Newly constructed rectangular canal in Radavi Bandi Ela scheme Inginimitiya, Puttalam



Canal lining Improvements to RB main canal in Inginimitiya Scheme



Canal lining with bathing steps in Inginimitiya scheme

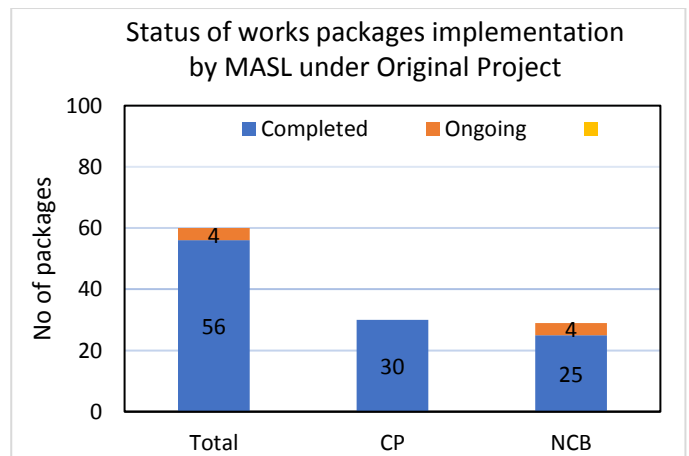
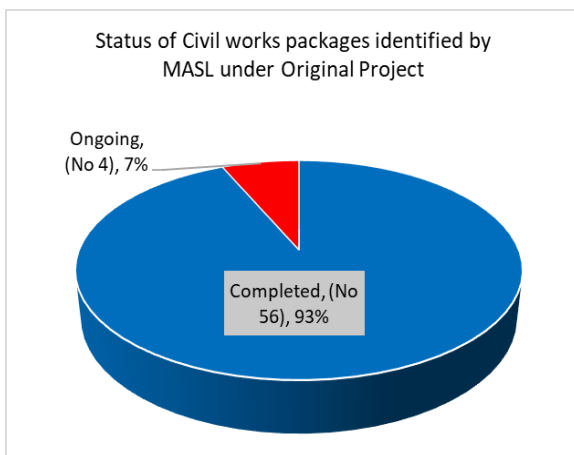


Construction of retaining wall in D1 canal in Ranketha D1 off LLMC & in LLMC

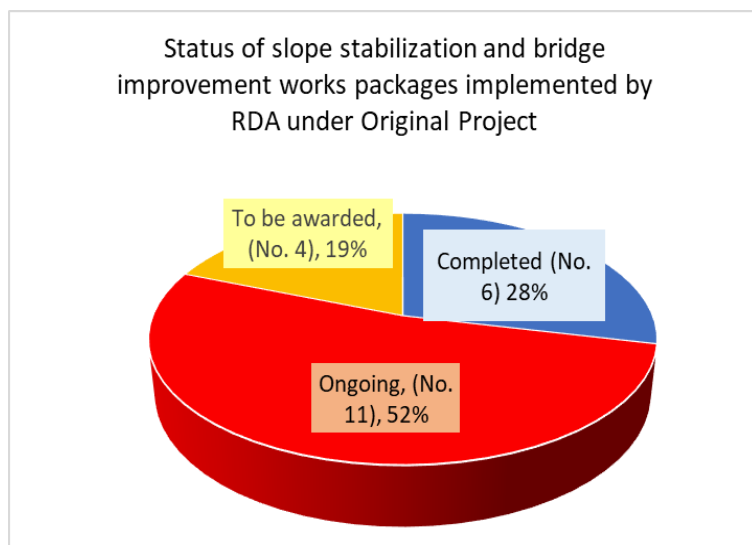
### 5.3.2 Physical improvement of Hydraulic infrastructures of MASL:

MASL has identified 77 works packages under Original project and Additional Financing. All packages are awarded with contract value of Rs 2,219.5 mn.

At end of 2017, 57 packages completed with value of Rs 1,236.3 mn and paid Rs 1,390.2 mn. to contractors. Rest of 20 packages are at different stages of progress and majority of packages are completed more than 75% work.



### 5.3.3 Ensuring Transport Continuity – Road and Bridge Improvement



RDA has identified 21 rehabilitation packages including 12 packages for improvement of bridges and 9 packages for stabilization of slope failures in road side to mitigation landslides. Total estimated value of 21 packages is Rs 3,834.5 mn. By end of 2017, RDA has awarded 10 bridge improvement packages with contract value of Rs 1,789.3 mn. for improving bridges in

Nadimale - Boralasgamuwa road, Polonaruwa – Thambala-Sangawila Somawathi road, Trinco-Baticaloa road, Bogahawewa-Pulmudai Road, Makandura-Badalgama Road, Kataragama-Sella kataragama road and Katuela bridges across Gangodawila boralasgamuawa Road.

Construction of 2 new bridges and widening of 2 bridges in Polonaruwa – Thambala-Sangawila Somawathi road are completed. Nadimala bridge construction is completed 99%. Construction of Trincomalie-Baticallow bridge is implemented by SD&CC and their progress is not satisfactory as physical progress is achieved only 57%. Construction of bridge no 3/1 causeway on Bogahawatta-pulmudai road is completed. Construction of 2 bridges and reconstruction of culvert over Katuela on Gangodawila- Boralasgamuwa road is completed. A bridge in Warakapola - Rwanwella road is recently awarded and 8% completed the work. Construction of bridge in Sellakataragama-Kataragama is completed. Construction of bridge in Allai-Kanthale is completed 39%. Construction of bridge no 53/1 on Colombo-Rathnapura-Wellawya road is completed 11%.

In addition, 6 packages are awarded to stabilize the unstable slopes in road sides with contract value of Rs. 1,301 mn. Among them, 3 packages awarded with a value of Rs. 648.6 mn to rectify unstable slope in 16 sections of Kandy – Mahiyangana road. Progress of these 16 sites is 98%. Slope stabilization package awarded to stabilize the slope failure at Haggala in Peradeniya-Chenkaladi is completed 20% and progress of package awarded to stabilize slope failure at Beragala is completed 12%. Landslide mitigation at Ginigathena site is completed 25%. In addition, another two-bridge packaged and 2 slope stabilization packages are at designing stage.



Reconstruction of Nadimala Bridge No. 4/1 on Dehiwala - Maharagama Road



Construction of Koddamunai Bridge (1/1) on Batticaloa - Trikondimadu- Trincomalee Road

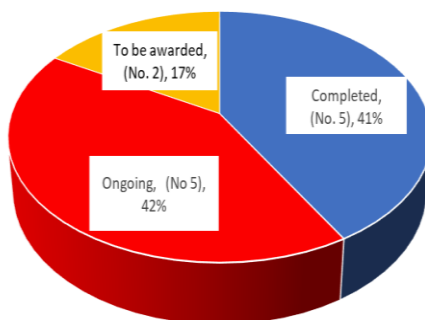


Reconstruction of Bridge No 3/1 on Bogahawewa - Pulmudai Road

### 5.3.4 School Safety – Landslide Mitigation

NBRO has identified 18 schools as most vulnerable school sites to be protected from landslides in Kandy district. These 18 schools are packaged in to 12 packages and at present 10 packages are awarded for rectification of landslides in 14 schools with contract value of Rs 617.7 million and 5 packages already completed.

Status of Slope stabilization works packages implemented by NBRO under Original project



Out of 10 awarded packages, 3 packages completed with 5 school sites at Dharmaraja collage, Mahamaya Girls school, Hill wood collage, Gotahmi Girls's school and Galkanda kanista Vidyalaya.

Work in progress at Wattedgama central collage (77%), Gampola st. Joseph girls collage (98%), Vidyartha Vidyalaya (16%), Sri Piyarathana Maha Vidyalaya (84%), and Kassawatta Muslim Kanista Vidyalaya (35%). Rest of 3 schools namely Molagoda Sr Piyadassi Vidyalaya, Gampola Buddhist collage and Jinaraja girls school are at bidding process.





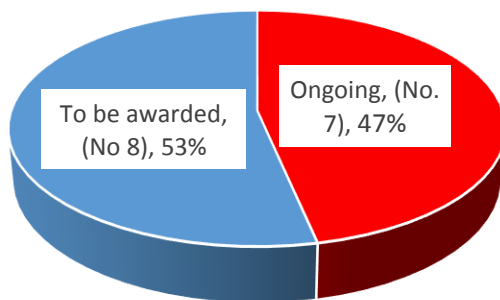
Retaining wall behind a school building at Galkanda Kanista Vidyalaya



Retaining wall at Sirimalwatta Navodya vidyalaya

### 5.3.5 Slope stabilization works in PRDD - Uva Province

Status of Slope stabilization works packages implemented by Uva-RDD under Additional financing



Project Implementation Unit (PIU) established under PRDD-Uva province with AF has identified 15 civil works packages to be stabilized risks of slope failures and erosion in Uva road network. Among them 7 packages directly previewed by PRDD-Uva has awarded with contract value of Rs 833.2 mn and paid Rs 208 mn as mobilization advance and part payment for the contractors. Rest of 8 packages are at

investigation and design stages which are managed by NBRO together with PRDD-Uva, NBRO directly involve with development of designs and preparation of BOQ. Out of 8 packages, 4 packages are supervised by NBRO as such packages are needed to conduct monitoring of soil movement. Rest of 4 packages are supervised by PRDA-Uva.



Construction of lined drain with raised concrete wall and gabion wall in Kottagoda podumilla yalagamuwa road



Progress review meeting held at Uva-PIU to review the progress of package implementation by PRDD



Construction of concrete U drains in Kottagoda Podumilla Yahalagamuwa Road

#### **Progress of Component 4:**

It was decided to activate the project Contingent Emergency Response Component (CERC) to improve the road structures damaged due to 2017 floods in Kalutara, Galle, Hambantota and Rathnapura districts by allocating US\$ 3 mn equivalent to Rs 465 mn.

In fact, Project and the WB have agreed to implement the rehabilitation work through District Secretaries by delegating authority to District Secretaries on procurement of contractors and supervision of contracts together with PRDA and RDA and also for recommending payment to be made to contractors by PMU-CRIP. PMU and World bank representatives made joint visits four districts to investigate the proposed road structures to be improved with the project funds. District planning Directors have prepared procurement plans and tender documents to advertise the tenders to select suitable contractors.

#### **6. Capacity development**

In order to strengthen the physical capacity of IAs for implementation of project, PMU has procured and distributed 189 Desktop Computers, 65 Note Book Computers, two computer servers, 44 Pickups, 7 Passenger Vehicles, 59 Digital Cameras, 20 excavators, 18 total stations, 58 leveling instruments, 5 water pumps with pump house and trailers, several Laboratory Equipment, monitoring equipment for landslides and Furniture among IAs.

Project has identified training needs of project implementation agency's staff and arranged several local training programme as well as foreign training programme. So far project has arranged 22 local training programme for 491 officers in IAs by utilizing Rs 4.3 million and 7 foreign training programme for 55 officers in IAs by spending Rs 15 million.



A team of 16 Engineers attached to Implementing agencies trained on "Procurement Procedures for World Bank Aided Projects" at ASCI, Hyderabad, India. 06-17. November 2017



Training programme conducted by Postgraduate Institute of Agriculture Peradeniya for staff selected from Implementation Agencies on project social and environmental Safeguard management



Hon Vijith Vijayamuni Zoysa and Eng D.C.S Elakanda attended 23rd Congress of International Commission on Irrigation & Drainage (ICID) held in Mexico City, in Mexico from 8th to 14th October 2017

## 7. Overall Project Benefits assured for the community from project investments by 31<sup>st</sup> December 2017:

- Crops cultivation in 50,000 ha of lands has protected from floods and droughts due to the project intervention under component 2
- 340 km length of Irrigation water distribution canal improved under the project
- 20 km length of flood bunds rehabilitated
- 65 km length of drainage canals improved
- 18,000 School children in 6 schools protected from landslide risk in Kandy district (Dharmaraja, Mahamaya, Hilwood, Gothami, Galkanda kanista Vidyalaya and Kurukuttala vidyala)
- Ensured transport continuity in
  - Kandy -Mahiyangana road (95%),
  - Dehiwala-Nadimale bridge (100%),
  - Polonnaruwa-Somawathiya road (100%),
  - Gangodawila-Boralasgamuwa (100%) and
  - Bagahawewa-Pumudai (100%)

## **b. Thalpitigala Reservoir Project**

It is proposed to construct a Thalpitigala Reservoir at 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 15.56 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 energy.

Total Cost of this project is US\$ million 174 and an agreement has been signed between the Ministry of Irrigation & Water Resources Management and Sino Hydro Corporation Limited, China to implement the project.

The feasibility Study has been finalized and the EIA Study is approved. The funding agreement has been signed between Government of Sri Lanka and EXIM Bank China in December 2017.

It is expect to commence implementation work of the project at the 2<sup>nd</sup> quarter of 2018.

## **c. Lower Malwathu Oya Reservoir Project**

Malwathu Oya flows through boundary of Anuradhapura and Vavuniya districts and the Proposed Lower Malwathu Oya Reservoir is located across Malwathu Oya at Bogoda and the reservoir lies both 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 Outlet Sluices, Canal Systems to new settlement areas and a power house.

Stored water in the proposed reservoir is released through the river outlet 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 convey water to irrigate 24,450 acres and 6,230 acres under existing Giant's tank and Akitamuruppu tank respectively. In addition to that, 1,300 acres of new irrigable lands just downstream of the Reservoir is proposed for introducing the commercial farming and 750 acres of lands identified for paddy cultivation. Further,

it is expected to reduce the spreading of CKDU in that area by providing 2.0 MCM of domestic water annually for the new settlers and adjacent areas of Anuradhapura and Vavuniya districts. Other expected benefits are generation of 4.28 GWH Hydro power energy annually and improvement of agricultural activities, livestock development and other infrastructure developments. Total Project Cost is Rs 12,000 Million. Initial project cadre has already been approved by the Department of Management Services.

**Following are the Progress of Lower Malwathu Oya Reservoir Project up to the end of 2017.**

- i. The lands for resettlements for the settlers who are living within the tank bed of the proposed reservoir has been identified.
- ii. Demarcation of the High Level flood level of the proposed reservoir has been done and the boundary stones were established.
- iii. The construction of Project office was in progress.
- iv. The completed final Environmental Assessment Report for LMORP had been submitted to the Central Environmental Authority.
- v. The Technical and Financial Proposals submitted by China CAMC Engineering Co.Ltd for the Engineering, Procurement and Construction contract of the reservoir had been evaluated by the Cabinet Appointed Project Committee and it has been discussed by the Cabinet Appointed Negotiation Committee.
- vi. The basic Socio – Economic survey of the tank bed areas and resettlement areas has been completed by the staff of LMORP and the procurement works to carry out detailed Socio – Economic Survey was in progress.

## **d. Establishment of Ground Water Monitoring Network**

### **Background**

Demand for groundwater has rapidly increased with the growth of population and a massive development is taking place throughout the country. With the unprecedented demand for groundwater it is vital to manage this valuable resource, otherwise there will be a serious groundwater related issues in future. Groundwater pollution is also added to the issues other than the depletion of groundwater with high extraction. Therefore, there should be proper mechanism for the management of groundwater.

At this juncture, real time data for groundwater quantity as well as groundwater quality is much essential. For this the Establishment of Groundwater Monitoring Network covering the whole country and to monitor ground water level fluctuation and its quality is timely requirement for the sustainable management of groundwater.

### **Implementation of the Project**

At the first stage, the approval has been given for a pilot project covering 03 river basins; Malwathu Oya, Maduru Oya and Kumbukkan Oya. 150 number of test well points are monitored at the pilot project and to be extended covering 1310 test well points throughout the country. Water Resources Board is the implementation agency for the project.

### **Present Status**

Contract Agreement signed with M/S Eijkelkamp Earth Sampling Group of the Netherlands for sum of Euro 20,629,921+ taxes on 03<sup>rd</sup> October 2017 to carry out the pilot project in 03 years. Meanwhile foreign funding finalized with Rabo Bank of the Netherlands for sum of Euro 17,535,433 on 30<sup>th</sup> November 2017 to commence the project. Project work could not be commenced as expected though allocated Rs. 300 Mn for the project in 2017.

## **e. Productivity Enhancement and Irrigation System Efficiency Improvement Project**

The project is executed by the Ministry of Irrigation and Water Resources Management with four key implementing agencies;

- Irrigation Department
- Department of Agriculture
- Department of Agrarian Development
- Irrigation Management Division

under the funds provided by Government of Sri Lanka. The estimated total project is Rs: 18,500 Mn. The scope of the project is to enhance the land, water and crop productivity of 80 irrigation schemes including 40 major irrigation schemes and 40 medium irrigation schemes in Sri Lanka by improving the irrigation system efficiencies focusing on improving the water productivity and thereby improving land productivity and crop productivity and climate resilience. This project consists community driven development programmes under 3 main aspects on direction, assignment and commitment.

The objectives of the project are, rehabilitation and upgrading of delapidated conveyance system due to the aging and flood damages, improving the drainage systems for mitigation of adverse climate change impacts, installation of flow measurement networks for control and distribution of water within the conveyance system to increase the water use efficiency in on-farm and off farm water management, empowering the farming community for strengthening the capacities in irrigation system operation, maintenance and management, rehabilitation and Improvement of farm roads within the irrigation schemes for providing marketing facilities and cost effective farm mechanization, conducting pilot demonstrations for land consolidation and crop diversification to improve the land and water use efficiencies and productivity, introducing soil structure improvement methods for increasing land productivity and introducing and promote value addition for agricultural products connecting with producing high value crops for market chains.

In order to achieve the above project objectives, the sub projects are categorized under 4 main components;

1. Irrigation Infrastructure Rehabilitation Component (IIRC)
2. On-farm Development Component (OFDC)
3. Agriculture Productivity Improvement Component (APIC)
4. Increasing Capacity for Irrigation Management Component (ICIMC)

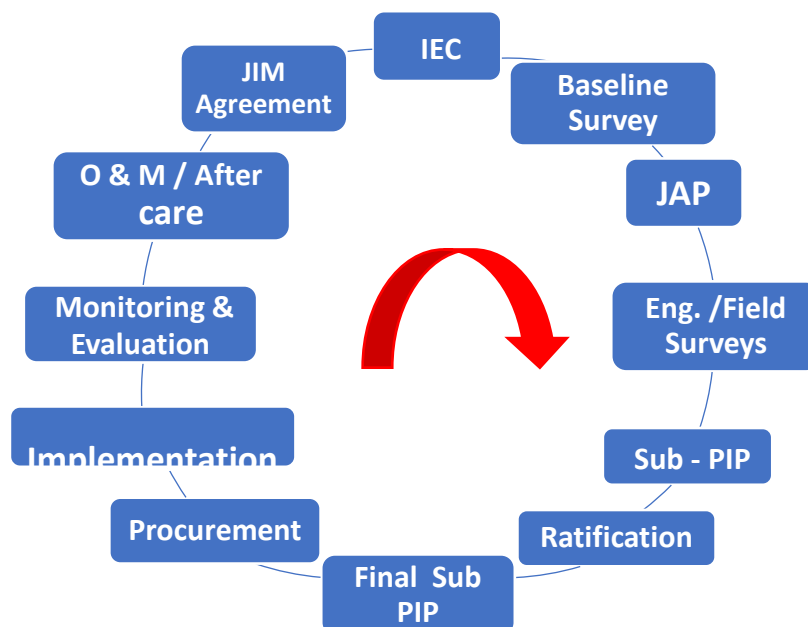
The performance under the above 4 project components showed considerable progress at the end of year 2017 and participation of farmers and officers at field level was over whelming to the expected standards.

The project was launched with a National Level Project Awareness Programme conducted on 21<sup>st</sup> February 2017 followed by series of range level awareness programmes. An allocation of Rs: 300.00 Mn. was received for year 2017 and 18 irrigation schemes were selected covering all irrigation ranges to start the project in year 2017. The selected schemes are listed below;

- Namal Oya
- Manankattiya
- Mahawilachchiya
- Huruluwewa
- Thaldena
- Weligahakandiya
- Kalthota
- Diyalape Amuna
- Bandagiriya
- Lunugamwehera
- Himbiliyakada
- Mediyawa
- Magandana
- Mahaandarawewa
- Girithale
- Mahadivulwewa
- Irattaperiyakulam
- Viyadikulam

The financial progress at the end of 2017 was 50% and project could achieve 80%. Targetd performance in the year as well. The overall physical and financial progresses were 70% and 50% respectively. At the initial stage stake holder organizations have more work on public consultation to prepare Joint Action Plans (JAP), for identification of the sub projects under each component.

The steps of the project cycle are shown below.





## Awareness Programmes and Project Launching



Opening Ceremony (Magandana Scheme-  
Monaragala)



Range Level Awareness Programme  
(Kurunegala)



Project Management Committee Level Awareness  
Programme (Namal Oya Scheme - Ampara)



Initial Awareness Programme (Mediyawa Scheme -  
Kurunegala)

## Irrigation Infrastructure Rehabilitation Component (IIRC)



Rehabilitation of farm road and canal (Himbiliyakada  
Scheme - Matale)



Canal under construction (Diyalape Amuna Scheme -  
Matara)



Constructions of field canals (Manankattiya Scheme)



Clearing and construction works of anicut (Magandana Scheme – Monaragala)

### On-farm Development Component (OFDC)



Farm plot realignment for mechanization (Kalthota Scheme – Rathnapura)



Preparation of Organic Fertilizer (Kaltota Scheme)



Use of aquatic plants for organic fertilizer (Himbiliyakada Scheme – Matale)



Introducing High Value crops – peanut cultivation (Magandana Scheme-Monaragala)

## Agriculture Productivity Improvement Component (APIC)



Nurseries using parachute Trays (Lunugamwehera Scheme – Hambantota)



OFC cultivation on dislikes (Kaltota Scheme – Rathnapira)

## Increasing Capacity for Irrigation Management Component (ICIMC)



Preparation of Joint Action Plan (Manankattiya Scheme – A'pura)



Walk through Survey (Namal Oya Scheme – Ampara)



Baseline Survey (Magandana Scheme - Monaragala)



Wapmagula Programme (Diyalape Amuna Scheme – Mathara)

## 6. Projects and Programmes Directly under the Ministry and Performance

### a. Irrigation Department

#### 1. 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. Cultivation Performance of Irrigation Department

### 2.1 Irrigation & Water Management Sub Department

#### 2.1.1 Objectives:

Objectives of the Irrigation & Water Management Sub Department are:

- i. Facilitate efficient, effective and sustainable management of the irrigation systems with the participation of users in order to maximize productivity in terms of unit of water and in terms of unit of land.
- ii. Facilitate Maximum utilization of resources available in order to increase the farmer income. In line with the above objectives main areas of responsibilities of the Irrigation & Water Management Sub Department include:
  - Coordination with water uses stake holders to manage water in the river basins.
  - Improvement of System Water Management
  - Carryout program on Awareness of on farm Water Management.
  - Carryout program on Awareness of water shed management and management of quality of water shed.
  - Rehabilitation and up-grading Systems for better Water Management.
  - Formulating proposals to mitigate adverse effect of climate variations.

#### 2.1.2. Water Management

It is generally accepted that there are four rainfall seasons in Sri Lanka:

Monsoon	Duration	Rain fall receiving
First Inter Monsoon (FIM)	from March to April	14 %
South West Monsoon (SWM)	from May to September	30 %
Second Inter Monsoon (SIM)	From October to November	30 %
North East Monsoon (NEM)	from December to February	26 %

These rainfall seasons do not bring homogeneous rainfall regimes over the whole island and it is the main cause to exhibit such a high agro-ecological diversity of the country despite its relatively small aerial extent. Out of these four rainfall seasons, two consecutive rainy seasons make up the major growing seasons of Sri Lanka, namely Yala and Maha seasons.

Generally in Yala season is mainly deepened on FIM and SWM rains. However, since SWM rains are not effective over the Dry zone it is only the FIM rains that fall during the Yala season in the Dry zone from mid March to early May. Being effective only for two months, the Yala season is considered as the minor cultivating season of the Dry zone.

Maha season that the major growing season of the whole country is begins with arrival of SIM rains in Mid September/October and continues up to late January/February with the NEM rains. Rice is grown under more diverse environmental conditions than any other major food crop in the world and the situation remains as the same in Sri Lanka too.

Water Management in the schemes is the integrated process of storage, reuse, diversion, conveyance, regulation, measurement, distribution and application of the rational amount of water at the correct place, at the proper time, and removal of excess water from the farms to promote increased production in conjunction with improved cultural practices. Water Management Branch functioning under System Management Sub Department which is assisted to fulfill this task.

Accordingly, Water Management Branch is responsible for guiding and coordination of irrigation and water management activities in all the schemes under the purview of Irrigation Department including water management in major and medium irrigation schemes, performance evaluation, participatory water management, on farm water management, water and land productivity improvement.

### **2.1.2.1 Maha 2016/17**

The 2<sup>nd</sup> Inter monsoon was partly activated and available water percentage of 73 main reservoirs at begging of the season for Maha 2016/17 when October 2016 was 33 %. NE monsoon also has not received in expectable level and because of that no inflow generated during November to December. Hence reservoir's capacity was decreased to 27% by the start of January 2017. Somehow, at end of the season the eastern part of the country received a considerable rainfall and other part of the country also had a reasonable rainfall. As a result, the capacities were increased in the reservoirs in Ampara,

Batticaloa and Badulla districts and it was able to prevent crop failures due to prevailed drought situation in other parts of the country. There was crop damages reported in Ampara due to both flood and drought. Ampara and Batticaloa districts were able to cultivate more than 85% of the irrigable extent.

The crop damages were minimized due to effort of the field staff who were doing strict water management. The pumping was done to save the crops in Kurunegala and Gampaha districts. 77% of under Major Irrigation Schemes and 53% of Medium Irrigation Schemes were cultivated and totally 74% were cultivated during Maha 2016/17.

75% of the total extent under purview of Irrigation department in dry zone was cultivated. But Anuradapura, Kurunegala, Polonnaruwa, and Mannar were cultivated bellow 75% of their total extent. (These Ranges are highlighted in bellow table: 01)

**Table 01: Cultivated extent cultivated during Maha 2016/17**

No	District	Gross Extent (Ac)	Cultivated Extent (Ac)			District Percentage
			Paddy	OFC	Total	
1	Ampara	157,167	135,021	11,439	146,460	93%
2	Anuradhapura	96,118	37,492	2,561	40,053	42%
3	Badulla	22,801	11,000	2,520	13,520	59%
4	Batticaloa	55,359	51,329	0	51,329	93%
5	Colombo	2,138	1,680	0	1,680	79%
6	Gampaha	11,327	4,235	0	4,235	37%
7	Kalutara	2,400	690	0	690	29%
8	Rathnapura	6,656	5,638	100	5,738	86%
9	Galle	15,207	4,283	75	4,358	29%
10	Matara	20,622	14,006	0	14,006	68%
11	Hambantota	61,371	55,949	600	56,549	92%
12	Kandy	15,586	12,582	706	13,288	85%
13	Nuwara Eliya	1,929	784	293	1,077	56%
14	Matale	17,663	10,089	730	10,819	61%
15	Kurunegala	45,560	30,382	620	31,002	68%
16	Monaragala	19,306	12,498	0	12,498	65%
17	Polonnaruwa	87,820	64,963	0	64,963	74%
18	Puttalam	17,041	10,640	600	11,240	66%
19	Trincomalee	56,416	49,644	0	49,644	88%
20	Vavuniya	6,816	4,573	0	4,573	67%
21	Mannar	31,892	19,400	0	19,400	61%
	<b>Total</b>	<b>751,195</b>	<b>536,876</b>	<b>20,244</b>	<b>557,120</b>	<b>74%</b>



### 2.1.2.2 Yala 2017

1<sup>st</sup> Inter monsoon in year 2016 was partly activated while available water percentage of 73 major reservoirs being 39% at the beginning of April 2017 where as it has been 84% in the year 2016. Some reservoirs under Mahaweli systems were at lower capacity; especially GDR (Kotmale) was 48.9% which is the most important reservoir in the Mahaweli system. Therefore it was decided to reduce the cultivation in schemes that effected from the above Mahaweli systems.

Therefore, most of irrigation schemes under ID were not cultivated and some schemes facing water shortage had to use water pumps for safeguard their crops. However available storage of major tanks was dropped to 16% at the end of the season, due to cultivation/ water issues.

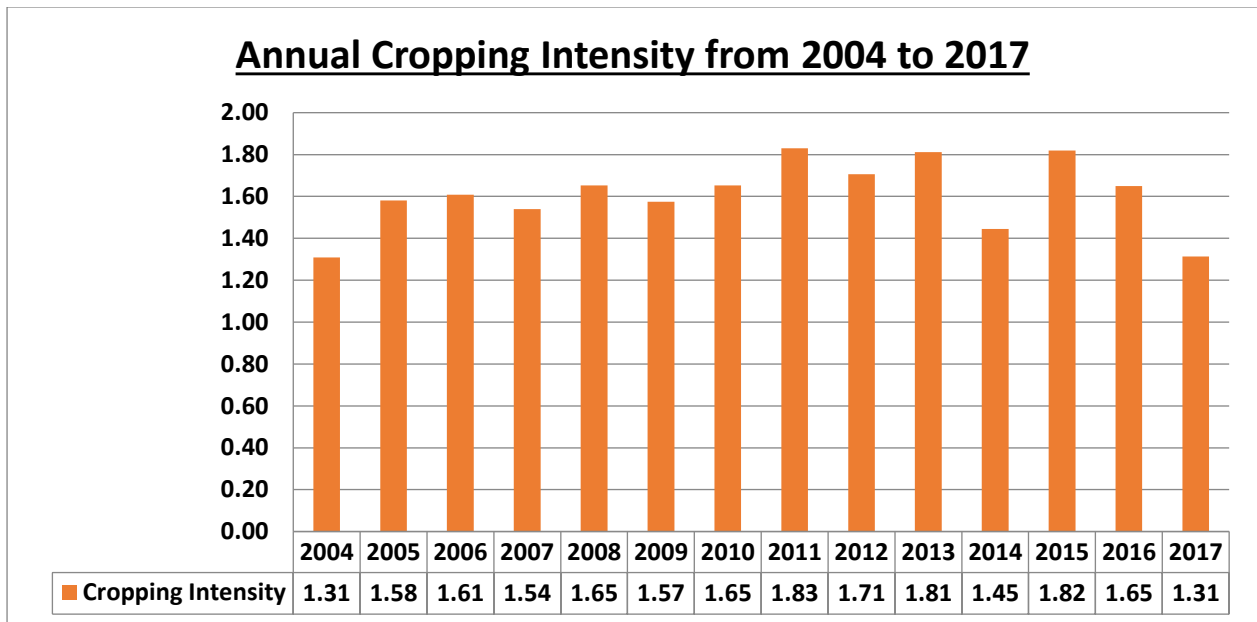
Cultivation was completed under Major and Medium irrigation schemes were 56% and 45% respectively and total being 54% during Yala 2016.

Yala 2017 cultivation showed the lowest performance due to less rain fall in previous seasons and minimum cultivation in dry zone same as Maha 2016/17. Cultivation in Ampara, Anuradapura, Hambantota, Kurunegala, Trincomalee, and Mannar were below 60% of their total extent which is above 75% of the cultivated area under Irrigation Department. (These Ranges are highlighted in bellow table: 02)

**Table 02: Cultivated extent cultivated during Yala 2017**

No	District	Gross Extent (Ac)	Cultivated Extent (Ac)			District Percentage
			Paddy	OFC	Total	
1	Ampara	157,167	82,545	10,642	93,187	59%
2	Anuradhapura	96,118	18,092	755	18,847	19%
3	Badulla	22,801	6,440	8,550	14,490	64%
4	Batticaloa	55,359	46,846	20	46,866	85%
5	Colombo	2,138	1900	0	1900	89%
6	Gampaha	11,327	10,591	0	10,591	93%
7	Kalutara	2,400	1,100	0	1,100	46%
8	Rathnapura	6,656	5,729	309	6,038	91%
9	Galle	15,207	10,263	0	10,263	70%
10	Matara	20,622	18,228	0	18,228	88%
11	Hambantota	61,371	33,294	0	33,294	54%
12	Kandy	15,586	11,166	2,403	13,569	87%
13	Nuwara Eliya	1,929	0	0	0	0%
14	Matale	17,663	8,291	4,036	12,327	70%
15	Kurunegala	45,560	8,036	2,000	10,036	22%
16	Monaragala	19,306	14,585	832	15,417	80%
17	Polonnaruwa	87,820	63,651	2,050	65,701	75%
18	Puttalam	17,041	850	1,200	2,050	12%
19	Trincomalee	56,416	33,777	0	33,777	60%
20	Vavuniya	6,816	30	1,000	1,030	15%
21	Mannar	31,892	350	0	350	1%
	<b>Total</b>	<b>751,195</b>	<b>375,764</b>	<b>33,297</b>	<b>409,061</b>	<b>54%</b>

### 2.1.2.3 Lowest Cropping Intensity



After 13 years Irrigation Department reach the lowest cropping intensity of 1.31 during Maha 2016/17 and Yala 2017. The main reason for the lowest cultivation performance in dry zone is due to lowest rain fall were recorded in coincidence cultivation seasons.

### 2.1.3 World Water Day 2017

World Water Day is an annual event celebrated on 22 March and the theme for year 2017 was “Water and Waste Water”. Many Divisional Irrigation Engineers offices promoted art competitions and seminars for student to aware the importance and their sustainable use. Photos of some events are following.





#### 2.1.4 Deduru Oya Water Panel

The Deduru Oya Reservoir is located in Kurunegala District. It will serve the lands in dry and intermediate zones of Kurunegala and Puttalam Districts, where the people are frequently suffering from water scarcity. Benefits from the Project will uplift the living condition of these people. The Reservoir will hold 75 million cubic meters of water after its completion and it will provide assured irrigation facilities for 11,000 ha (27,500 acres) of paddy lands in the Deduru Oya and the Mee Oya basins benefitting about 15,000 farmer families while about 50,000 families will benefit by domestic water facilities, lift irrigation, and extension of inland fisheries culture etc.

The Deduru Oya Reservoir is issuing to Inginimitiya Reservoir (Puttalam district) Magalla reservoir (Nikaweratiya) about 300 minor tanks in Wariyapola DS division, Kotawehera, Kobeiganea & Mahawa DS division and extent of over 30 thousand in above area has been cultivated both in Yala & Maha .

The Deduru Oya Water panel was established to co-ordinate the water Management among Kurunegala and Puttalam district on 07<sup>th</sup> of October 2017. Flowing organizations were identified as the participants of the above panel.

1. Irrigation Department
2. DMC- Kurunegela / Puttalam
3. Agrarian District office - Kurunegela / Puttalam
4. NWS&DB



Deduru Oya Water Panel on 07/10/2017

### 2.1.5. 'Thirasara Lanka', national Educational and Trade Exhibition

'Thirasara Lanka', national Educational and Trade Exhibition organized parallel to the 'Toxin Free Nation' three-year program will be from 31<sup>st</sup> March to 4<sup>th</sup> April at BMICH premises. Irrigation Department was established a one installed and makes arrangement to share the knowledge among public.



Irrigation Department Install in 'Thirasara Lanka', national Educational and Trade Exhibition

### 2.1.6 Specific Activities

Some of activates involved by Water management Branch in the field are shown in following pictures in Year 2017.

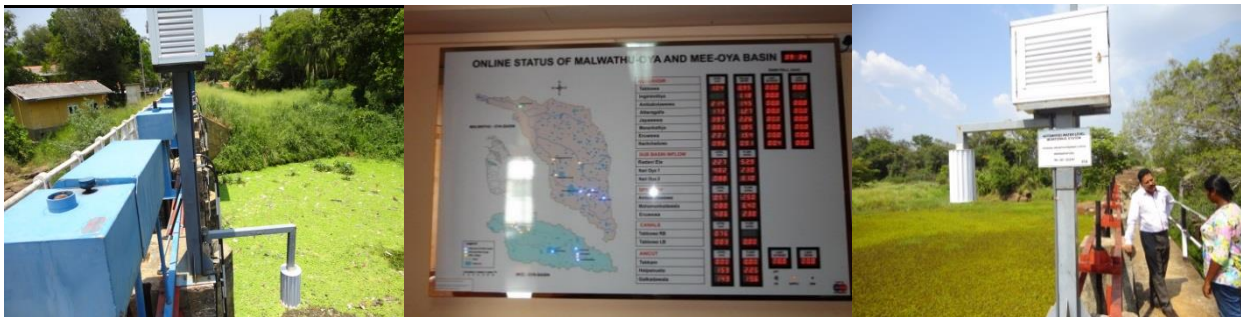
#### 2.1.6.1 Field inspection and discussion had on water issues with the Huruluwewa Feeder Canal.



2.1.6.2 The pre seasonal planning meeting at Polonnaruwa and at Gannoruwa (with MASL)



2.1.6.3 Remote status monitoring for Irrigation system In Anuradapura, Kurunegala & Puttalam Districts.



2.1.6.4 Construction works under Additional & Improvement to existing Irrigation Works



2.1.6.5 Training about low cost weather Instrument with IWMI



## 2.2 Irrigation & Productivity Enhancement

### Objective

The branch was established under the restructuring of the Department. The objective of the branch is to establish an integrated management system to increase socio - 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.

Irrigation Department maintains 756000 Acs of irrigated land which is the 75% of total irrigated land in Major Irrigation and 354 Irrigation Schemes in Sri Lanka. But it was unable to cultivate expected area in last three seasons due to the droughts and floods. Less than 50% of the target extent was cultivated due to the situation and now, the country facing savior food security problem. But we cannot expect traditional rainfall pattern every year due to the climate change effect and need to find advanced cultivation practices to address our food security problem.

Following programmes were implemented by Irrigation Department and expected to concentrate further to assure National Food Security and uplift of Socio - Economic standard of Farming Community.

#### 2.2.1 Productivity Enhancement and Irrigation System Efficiency Improvement Project (PEISEIP)

Ministry of Irrigation & Water resource Management together with Irrigation Department has launched the above project. Under this project, productivity improvement of 77882 hectares of paddy land and increasing socio – economic status of 97832 farmer families are focused. Following four components were identified to improve productivity under the project.

- I.) Irrigation Infrastructure Rehabilitation component
- II.) On farm development component
- III.) Agriculture Productivity Improvement Component
- IV.) Increasing capacity of Irrigation Management Component

The implementation of this project is based on integrated management concept and all line departments such as, Department of Agriculture, Irrigation Management Division & Department of Agrarian Development were collectively participated.

As the 1<sup>st</sup> stage of the projects, 18 Irrigation schemes were selected island wide for 2017 work plan and conducted the above productivity programme. There were many initial activities under the project during this year and expected to implement comparatively large program in 2018. Total project period is five years up to 2021.



During the year 2017, all the initial programs such as awareness to national level officers, District level officers, Project management committee level officers and farmer leaders were completed. Construction works too started in all the target schemes and achieved about 50% of financial progress. The project was started ceremonially from Magandana scheme in Monaragala District by Hon Minister of Irrigation and Water Resource Management.



### 2.2.2 Training of Development Officers in Irrigation Training Institute (ITI) – Galgamuwa

About 200 Development Officers are working in Irrigation Department. Most of the Development Officers were trained in 2014 & 2015 in four groups. But some Officers were unable to join those programmes and a new batch joined the department in 2016. Therefore another training program was conducted in ITI Galgamuwa covering all the balance officers.



### 2.2.3 National Food Security program and Wasa Visa Nathi Ratak Program

Ministry of Agriculture has organized the above program and Irrigation Department contributed by providing necessary assistant in Irrigation Schemes in field level. Irrigation Department conducted training programme on the promotion of traditional crops and Model farm.

Under the programme, promotion of Other Field Crops (OFC), conservation of eco – system, conservation of traditional agricultural practices, production of quality foods etc were implemented in most of the Irrigation Schemes. This program will be extended for 2018.



OFC Cultivation and Traditional Paddy in Major Irrigation Schemes



### 2.2.4 Traditional paddy Cultivation programme and organic fertilizer programme

This program was implemented in several districts such as Anuradhapura, Polonnaruwa, Monaragala, Badulla, Galle & Matara, and Hambantota & Kandy in small scale as pilot project and found successful achievement. Therefore more attentions were given to promote organic fertilizer with modern paddy varieties. Production of organic fertilizer has become a national need and farmers were encouraged by providing training and other basic needs. At present the demand is increasing and expected to implement some more programme during 2018.



### 2.2.5 Management of Invasive Species (Aquatic Plants) in Irrigation Schemes

Rapidly spreading IAS (Invasive Alien Species) invaded entire Irrigation System in Sri Lanka and created numeral Socio – Economic damage in irrigation sector. Irrigation Department has to invest large amount of money to maintain the systems due to this problem. At present, manual and mechanical controlling methods are used for seasonal maintenance and provide water for farming lands. But, physically removing of IAS is not a sustainable solution to the problem. Therefore Irrigation Department launched National program on Biological Control Methods with the collaboration of plant protection division of the Agriculture Department and Bio – Diversity Secretariat of the Environmental ministry. *Salvinia* (*Salveniya molesta*) and Japan Jabara (*eichorania crassipes*) have been identified as most damage IAS in irrigation system.



Following activities were carried out during the year 2017 and decided to concentrate more activities in next three years to eradicate the problem.

- I. Training of field officers & appointing as authorized officers under the plant protection act. 1999 No 35 (KITI – Kothmale 30,31 March 2017)



- II. Department has signed an MOU with University of Sri Jayawardhanapura Science Faculty for a research study on Biological Control Methods. The study was completed and hand over the final document to the Department. One day workshop was held in KITI – Kothmale on 28<sup>th</sup> July 2017 to aware senior officers in the Department.



### 2.2.6 Tree planting programme in irrigation reservation

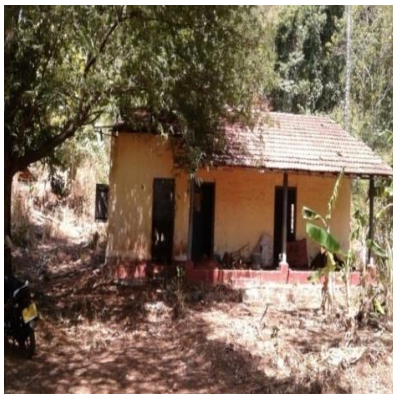
Department is implementing tree planting programme annually and achieved good progress in most of the district. This programme is attractive for the farmers. The farmer organization voluntarily maintained the plants until it get matured. Now we have organized to provide valuable plants such as Aricunut, Mango, Teak and herbal trees in irrigation reservation.



### 2.2.7 Establishment of field maintenance units

Establishment of unit offices in irrigation schemes level was started in year 2013 and achieved good progress at present. This year 2017, about 20 Unit offices were established, and total Units officers established so far is about 190.

The other activity under the programme is to provide maintenance equipment for the unit offices. This year 2017 about 30 maintenance units with basic maintenance equipments were provided to unit office level and it is planned to complete the entire units with basic maintenance equipment by next three years up to 2020.



**Bowathanna Unit office**



**Mapakada Unit office**

### 2.2.8 National Exhibitions and Other Events

Irrigation Department is contributed to National Exhibitions. The Hon. Prime Minister's exposition in Parliament for over 40 years exhibition at National Youth Centre, Maharagama from 27<sup>th</sup> to 30<sup>th</sup> July 2017. Many requests are coming to the Irrigation Department by schools in their National Events to display and explain our Functions and Irrigation Technology for Children & General Public. There by full equipped exhibition install was provided for the exhibition of the Bishop's Collage, Colombo 03.



### 2.2.9 Commemoration of world Water day Programme.

World Water day is celebrated every year on 22<sup>nd</sup> March 2017 and the department is organizing main Ceremony Head Office and other awareness Programme focusing of school Children at Divisional Irrigation Engineer's Offices Nikaweratiya and Kandeketiya.



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

The total financial allocation for capital expenditure for the year 2017 is Rs. 11,629.13 million and Rs.9598.81 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 2017 (Rs .million)	Cumulative expenditure up to end of December 2017 ( Rs.million)
Project 1 Administration and Establishment, services	45.847	44.753
Project 2 Administration and maintenance of Irrigation schemes	2590.659	2387.355
Project 3 Major Irrigation Schemes	8626.154	6904.276
Project 4 Medium Irrigation Schemes	366.467	262.427
<b>Grand Total</b>	<b>11,629.127</b>	<b>9598.812</b>

#### Summary of Recurrent Expenditure

Name of Project	Allocation for Year 2017 (Rs .million)	Cumulative expenditure up to end of December 2017 (Rs. million)
Project 1 Administration and Establishment services	661.308	631.620
Project 2 Administration and maintenance of Irrigation schemes	2618.746	2198.341

## Major Irrigation Schemes

1. Deduru Oya Reservoir
2. Manik Ganga Reservoir (Weheragala) – phase ii
3. Rambukkan Oya Reservoir
4. Yan Oya Project
5. Lower Uva Project
6. Mahagonawewa project
7. Gal oya navodaya
8. Essential Rehabilitation in selected Major Irrigation Schemes
9. Morana Reservoir
10. Kalugaloya Reservoir
11. Kumbukkan Oya Reservoir
12. Rugam Kithul Reservoir
13. Polonnaruwa District Irrigation Development Project
14. Accelerated Irrigation Development Project in Monaragala District  
(Wellassa Navodaya)

## Medium Irrigation Schemes

1. Gurugaloya Project
2. Wilakandiya Reservoir
3. Gonagalatenna Tank
4. Extension of Kaudulla stage 11 Ella up to Damsopurawewa
5. Augmentation of Mahagalgamuwa Tank
6. Construction of Pethiyagoda Pump House
7. Rehabilitation of Ginganga Flood Regulation Project.
8. Benthra Ganga Right Bank Drainage & Salt Water Extrusion Schemes

### 3.1 Deduru Oya Reservoir Project

Location:	Kurunegala & Puttlam 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

At present water is issuing to Inginitiya Reservoir (Puttlam district) Magalla reservoir (Nikaweratiya) about 300 minor tanks in Wariyapola DS division, Kotawehera, Kobeiganea & Mahawa DS division and extent of over 30 thousand in above area has been cultivated both in Yala & Maha seasons during 2015<sup>th</sup> and 2016<sup>th</sup>.

Head works of the project was completed and His Excellency the President has declared open the project on 22<sup>nd</sup> November 2014.

Rs. 11,810.75 Million has been already utilized at end of December 2017. Now project is completed.

In addition to this, drinking water supply project from Daduru Oya Reservoir has started. Drinking water benefit is for 3000 families has started.

Development of damaged Sengal oya anicut (Lower Daduru Oya Project) is done under Daduru oya project as phase II. Total allocation for this is Rs.1000.00 Mn & area benefited is 3500 acs. During the year physical progress as follows,

#### Daduru Oya

- Balance infrastructure development – 85%
- Installation of Radial gates & scour gates – 95%
- Construction of branch Canals – 45%

#### Lower Daduru Oya

- Construction of Sengal Oya Canal – 36%
- Improve – Seven (07) Tanks – 8%
- Lift Irrigation ( 6 projects) – 60%
- Improvement of existing Infrastructure including Anicuts – 17%



### 3.2 Weheragala Reservoir Project

Location:	Hambantota district
Reservoir capacity:	64 MCM
Irrigable area:	10,000 ha.
Beneficiaries:	8000 farmer families
TEC:	Rs. 2900 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 2017 was Rs. 2686.47 millions. The physical progress of the project was 99.84%. During this year following works are carried out under Weheragala Project.

Description	Physical Progress
• Rehabilitation of LB/ RB main canal in Lunugamwehera	60 %
• Rehabilitation of Ellagala Scheme.	35 %



### 3.3 Rambukkan Oya Reservoir Project

Location:	Ampara district
Reservoir capacity:	56 MCM
Irrigable area:	1423 ha.
Beneficiaries:	2300 farmer families
TEC:	Rs. 3970 Mn
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 99% and expenditure up to the end of December 2017 was Rs. 3872.93 million.



Sluice



Main Canal

### 3.4 Yan Oya Project

Location:	Anuradhapura, Trincomalee districts
Reservoir capacity:	169 MCM
Irrigable area:	5696 ha.
TEC:	Rs. 36855 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 lands 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 Meeoya basin (1735 ha) in Trincomalee District.

Physical progress have achieved for major component of the project during 2017 as follows.

Construction of Dam	– 42 %
Construction of Canal System	– 24 %
Resettlement & Compensation	– 73 %

- \* Dam Construction work delayed due to public protest from 28th May to 28th July 2017.
- \* Could not start the dam work after 28th July due to wet burrow area.

Allocation for year 2017 is Rs. 5396.61 million and expenditure during 2017 up to the end of December is Rs.4106.88Mn. Overall Physical progress is 70% at the end of December.



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

Location: Monaragala district  
 Beneficiaries: 2500 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 Mn. and estimate to be revised. The allocation for year 2017 is Rs. 25.01 million. Overall physical progress of the project was 93.5% and Rs. 620.72 million has been utilized up to the end of December 2017.

18 numbers of minor tanks are completed. During 2017 following works are in progress

- Balance works of Debara ara (Structures & Earth work) - 50%
- Completion of Watagala ara spill - 60%
- Construction of Debara ara feeder canal from 2+000km to 2+200 km - 100%
- Construction of Debara ara feeder canal from 4+000km to 4+250 km -100%
- Spreading of excavated soil of Debara ara feeder canal from 4+465 to 5+868 km in Wellawaya -100%



### 3.6 Mahagonawewa Project

Proposed MahagonaWewa is an abandoned tank donated 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 the amount of revised estimated is Rs. 260 million due to the variations are encountered.

Rs. 131.354 million have been utilized up to the end December 2017. Cumulative Physical Progress of the project was 58%. During the year 2017 Physical Progress of the project as follows

1. Construction of Spillway – 80%
2. Construction of Sluice – 75%
3. Construction of Spill tail Canal – 10%
4. Construction of Rip-Rap – 85%
5. Construction of Toe drain – 10%



Construction of Spillway

### 3.7 Galoya Navodaya

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.

Project estimate is Rs. 1260 million and the Irrigation Department component is Rs. 650 million. Allocation for year 2017 is Rs. 192.31 million and Rs. 155.04 million was spend during year 2017. Cumulative expenditure of the end of December 2017 was Rs. 1108.47 million. Overall physical progress of the project was 93%.

During the year 2017 Physical Progress was achieved as follows,

Rehabilitation of Irrigation works (Medium & Small new Irrigation works) – 69 %	
Infrastructure Component (4 Nos.)	– 61 %
Research	–76 %



### 3.8 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.

#### Progress:

The rehabilitation works of more than 150 irrigation schemes have been done from 2009 by the end of year 2015. The financial progress at each year is shown in table.

#### Summary of financial progress (Year wise)

Year	Expenditure /Rs. Mn
2009	11.3
2010	102.04
2011	172.73
2012	1217.58
2013	657.42
2014	634.81
2015	559.00
2016	594.12
2017	610.015

This year it has been planned to do essential rehabilitation works in 140 schemes. When considering the physical progress of above scheme it is observed following targets have achieved.

Items	Physical progress
306	100% completed
35	100-50%
11	50-25%
30	<25%

Apart from this expenditure for rehabilitation works, Rs. 1115 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 2017 is Rs. 4573.37 million.



### 3.9 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 2017 was Rs. 519.71 million and cumulative expenditure at the end of December 2017 was Rs. 1626.83 million. During the year Performance at the end of December as follows.

Work Component	Physical Progress
Construction of Head Works	Dam Construction : – 99.4% Construction of LB Sluice : – 81% Construction of Spill way : – 95%
Conveyance System	Construction of LB main canal including structures – 95% Improvements to two nos. minor tanks – 95% Construction of IFF – 50%
Land Acquisition work	Allowance for land acquisitions and surveying work – 100% Construction access road and other internal roads at resettlement area – 100%
Environment facilities	Reforestation with Forest Department -55%



Construction of Morana Reservoir Project

### 3.10 Kalugal Oya Reservoir

Location	:	Ampara district (Uhana)
Reservoir capacity	:	7800 ac.ft
Irrigable area	:	1500acres.
TEC	:	Rs. 1481. 40 million

Construction of bridge across the Kalugal oya, construction of RE's office, Power supply to Head Work site, construction of work shop & construction of stores have been completed.

Performance during 2017 as follows,

Construction of Dam	– 97%
Construction of Spillway	– 100%
Construction of Sluice	– 39%
Construction of canal system	– 100%
Environmental Mitigation	- 75%

Cumulative expenditure at the end of December 2017 was Rs. 1074.36 million. Rs. 623.63 million allocation is granted for the year 2017 and during the year expenditure is 603.04 million.



### 3.11 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. 32397 million

During the year physical progress of the project as follows

- Construction the Auditorium of circuit bungalow in DIE's office camp in Monaragala - 61%
- Surveying of settlement area under Kumbukkan oya reservoir - 20%
- Improvements to Thennegalanda Wewa - 50%
- Improvements to Iththakatiwa Wewa - 50%
- Improvements to Radana Wewa - 30%

Cumulative expenditure to end of 2017 is Rs.89.36 Mn



### 3.12 Rugam Kithul Reservoir

This project is proposed to augment Rugam tank to 90MCM by combining with Kithulwewa tank and reconstruct all the channel systems under present Rugam scheme, present Kithulwewa scheme and additional irrigable extent that can be taken under left bank of Mundeni Aru.

It is proposed to increase the irrigable extend of Rugam tank and Kithulwewa tank up to 200% additional 1500 acs of lands could be taken to irrigated agriculture from rain fed at present meanwhile 2000Acs of new lands could be cultivated by lift irrigation under this project.



Feasibility studies including Geological investigation in progress. Although planned for this year, construction of project site office was suspended due to unavailability of financial allocation. The allocation for year 2017 is Rs.40.00 Mn and expenditure during 2017 is Rs.38.05 Mn. Surveying and Investigation plan work are completed during this year.

### 3.13 Polonnaruwa District Irrigation Development Project

The aim of this project is to repair the flood damages and ensure proper water management. Further, it is expected to minimize the occurrence of flood in Polonnaruwa district and ensure the protection of property and lives of farming community.

Construction of Gaserugolla tank, Pekulama tank, improvements to Heeratioya and Rathupalama canal spills, introduction of additional spillway through Peramaduwa area for the Kaudulla tank and improvements to spill tail canal of Kaudulla tank to reduce flood are the main components of the project. The total allocation for the project is Rs. 7,158 Mn and the project duration is 6 years. Allocation for year 2017 was Rs 400Mn. and expenditure at the end of December was Rs. 207.914 Mn.

During the year performance as follows,

- Rehabilitation of Canal system PSS scheme - 75%
- Desilting of drainage canal PSS Scheme - 60
- Rehabilitation of canal system Minneriya & Girithale Scheme - 75%
- Flood damage repairs & improvements to flood bund Minneriya & Girithale Scheme - 65%
- Improvements to Kaudulla spilltail canal - 90%
- Rehabilitation of Kaudulla Scheme - 75%
- Rehabilitation of canal system in system “G” - 70%
- Renovation of Minor tanks in Mahaweli area - 85%



### 3.14 Uva Wellassa Navodaya

The scope of this project is directed to the proposals submitted by Farmer Organizations at the meetings chaired by Hon. Minister of Irrigation in Siyambalanduwa, Wellawaya, Monaragala, Bibile and Katharagama areas. The project is formulated to uplift the living standard of farmers in the district by improving the agricultural productivity. To achieve this objective the identified Medium, Minor irrigation schemes are to be rehabilitated, providing agro wells and farm ponds where the scarcity of water resources available. Total project cost is Rs. 2,950 Mn.

Rs. 50Mn Allocation granted for year 2017 to Irrigation Department. During the year expenditure under ID vote was Rs .32.197 Mn & Physical Progress of the Project was 75%.

During the year performance as follows.

- |  |       |
|--|-------|
| 1. Improvements to Alawaththa Kumbura Wewa | - 75% |
| 2. Improvements to Kehellanda Tank         | - 55% |
| 3. Improvements to Galbokka Wewa           | - 85% |
| 4. Improvements to Galwewa                 | - 60% |



### 3.15 Gurugal Oya Reservoir Project

Location:	Kandy district
Irrigable area:	810 ha.
Beneficiaries:	2400 farmer families
TEC:	Rs. 780 million

This scheme has been designed to irrigate a command area of 2000 acs where presently only 1200 acs are being cultivated due to the water scarcity faced by the tail end famers. When the project is completed it will enable 800 acs of lands to be cultivated fully. There is no allocation granted for year 2017 under Irrigation Department Head for this project.

As per December 2017 overall physical progress of the project was 98.3% & Cumulative expenditure under ID votes was Rs. 757.99 million.



### **3.16 Wilakandiya Tank**

Wilakandiya tank situated in Badulla district (Mahiyangana DS Division) and is an abandoned tank. Expected irrigable area is 250 Acs (are in investigation) and No .of benefited families are about 250 under this tank.

The project estimated cost was Rs. 270 million and estimate was sent to be revised but not yet approved. Head works was completed in 2015 and achieved overall physical progress of 86%. Allocation of Rs.30 Mn allocated for year 2017 under Wilakandiya Reservoir Project. Forest clearance for canal system of Wilakandiya project is not yet granted. Therefore, it was not possible to start construction of canal. Therefore, the amount allocated to this year has been transferred to Menikganga Reservoir Project.

### **3.17 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. The project estimated cost was Rs. 55 million and estimate was sent to be revised but not yet approved.

Cumulative expenditure up to the end of December was Rs.55.39 million. Cumulative physical progress at the end of December 2017 was 55%. There is no allocation granted for year 2017 under Irrigation Head for this project.

### **3.18 Extension of Kaudulla Stage 11 Ela up to Dampapura.**

The proposed project involves extension of LB canal of Kaudulla scheme, improvements of Damsopura wewa, augmentation of Babiyawewa, 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 length of canal trace has been finalized. Annual allocation for year 2017 is Rs. 60.0 Million & Rs. 43.19 Million has been spend year 2017.

During 2017 planned to complete 10 no of structures. Physical progress of the project was 45%.



### **3.19 Augmentation of Mahalgamuwa Tank Project**

The proposed Mahalgamuwa 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 2017 was Rs. 230.98 million.

Allocation for the year 2017 is Rs. 118.91 million. During the year financial progress up to end of December is Rs. 112.59 million.

2017 following works Completed

- Earth work (15.2km) – 100%
- Structures (15.2km) – 100%

### **3.20 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 Kelani ganga 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 hec. of highly developed land area and annual saving of about 5 million worth people properties. Total project cost is Rs. 310 million.

Allocation for the year 2017 is Rs. 50.00 mn. However allocation withdrawn as design had to be changed.

### **3.21 Rehabilitation of Ginganga Flood Regulation Project.**

The project is located in the Baddegama, Bope Poddala, Weliwita Divitura and Hikkaduwa DS Divisions in Galle District. Irrigation Department has implemented the Gin Ganga Regulation Project with aid of the Chinese government during late 70's. The project was completed and commenced its operation in 1982.

The main objectives of the project are successfully survived by the project more than 30 years. If this rehabilitation will not be done followings objectives might be failed and high damage may occur.

- i.) Providing flood control and drainage facilities for 5000 hectares of paddy lands so that whole area could be cultivated both Yala and Maha seasons without much troubles.
- ii.) Protecting human lives and their valuable properties from frequent flood experience in the area before the project. Around 20,000 families in the area are directly benefited presently as the objectives are successfully achieved by the project.

Expert team from the Japanese International Co-operation Agency (JICA) has been recommended the replacing of all mechanical components with new items in 2009.

Total estimated cost of the Project Rs.700 million & Proposed Duration of the Project is 36 months. Letter of Credit has been opened for purchasing pumps and they will be imported in 2018.

Allocation for the year 2017 is Rs.125.00 million and Cumulative expenditure at the end of December 2017 was Rs. 124.42 million. Cumulative physical progress was 20% to end of December 2017.

#### Gate Fabrications



### 3.22 Benthra Ganga Right Bank Drainage & Salt Water Extrusion Schemes

Bentara Ganga Right Bank Scheme is divided in to Sections namely Meegama & Ittapana. The land area covered by the both Ittapana & Meegama Sections of Bentara Ganga Right Bank Scheme is 1110 ha.

There are damaged Structures and gate in the Scheme. There were one hundred and fifteen gates to operate automatically during high tide and floods in the Bentara Ganga Right Bank Scheme. Some of the gates are damaged and they are to be replaced under this project. In the scheme, flood bunds have lowered their side slopes and have washed away and the channel bund roads have been damaged. Immediately correction action is taken under this project in order to sustain the structures gates and bunds to achieve the desired objectives.

The main task of the project is to prevent floods and intrusion of salt water by improving the drainage and irrigation facilities for the extent and improving the standards of living of the people in the area.

December 2017 the progress as follows

- Rehabilitation & Improvements to 9.5km length of SWW bund – 82 %
- 9 No of Drainage canals – 100 %
- 9 No of SWE structure – 88 %

Allocation for the year 2017 is Rs. 60.00 million. Cumulative physical progress to end of December 30% and expenditure up to end of December 2017 was Rs. 82.26 mn.



## 4.0 Other Major Projects implemented by Irrigation Department

### 4.1. Dam Safety and Water Resources Planning Project

The objectives of the Dam Safety and Water Resources Planning Project are establishing long-term sustainable arrangements for operation and maintenance of large dams and improving water resources planning. There are four components to the project.

The first component is for dam safety and operational efficiency improvement. This component will enhance public safety of 32 selected high risk large dams, improve operational efficiency of 80 dams (including the 32 dams), and establish sustainable institutional arrangements for dam safety management and Operation and Maintenance (O&M).

The subcomponents will include:

- (i) Remedial works for 32 high risk dams;
- (ii) Provision of basic safety facilities for 80 large dams;
- (iii) Training for strengthening dam-owning organizations; and
- (iv) Studies and supply of specialized equipment.

**Status report for additional finance works – Remedial works of Irrigation Department Dams  
under DSWRP Project**

<b>SI</b>	<b>Name of Dam</b>	<b>Estimate (LKR Mn)</b>	<b>Current Position</b>
01	Mahawilachchiya	254.00	Physical Progress –100% Financial Progress –203.47Mn
02	Mahakanadarawa	133.00	Physical Progress – 100 % Financial Progress – 107.14Mn
03	Padaviya	160.50	Physical Progress –100% Financial Progress –98.08Mn
04	Angamuwa	212.00	Physical Progress –100% Financial Progress –186.31Mn
05	Rajanganaya Dam (Package -01)	265.50	Physical Progress – 90% Financial Progress – 215.72Mn
06	Rajanganaya Dam (Package -02)	265.50	Physical Progress – 75% Financial Progress– 159.14 Mn
07	UnnichchiTank	75.59	Physical Progress – 60% Financial Progress –24.86Mn
08	NawakiriTank	111.90	Physical Progress – 65 % Financial Progress – 34.21Mn
09	Thoppur	56.20	Physical Progress – 100% Financial Progress – 42.02Mn
10	Wan Ela	82.79	Physical Progress –100% Financial Progress – 56.77Mn
11	Janaranjanawewa	124.77	Physical Progress –98% Financial Progress – 84.44Mn
12	Soraborawewa	23.55	Physical Progress –100% Financial Progress – 15.28Mn
13	Kachchimadu	104.47	Physical Progress – 60% Financial Progress-36.36 Mn
14	Kottukachchiya	75.25	Physical Progress –95% Financial Progress-43.11Mn
15	Bandagiriya	95.55	Physical Progress -70% Financial Progress- 42.76 Mn
16	Roseneth Dam (Kandy MC)	26.39	Physical Progress – 100% Financial Progress – 17.71Mn
17	Dunmadalawa Dam (Kandy MC)	58.87	Physical Progress – 65% Financial Progress – 22.60Mn
18	Muthukandiyawewa	24.14	Physical Progress–65% Financial Progress – 9.67Mn
19	Baudullaoya	66.21	Physical Progress – 35% Financial Progress – 19.65Mn
20	Improvements to training center for dam operating staff - Galgamuuwa	185.48	Physical Progress –100%. Financial Progress – 95 %
21	Improvements to Hydrology Monitoring office		Physical Progress –100%. Financial Progress – 90 %





Mahakandarawa Dam – Bund



Angamuwa Dam - Spill

#### 4.2 Uma Oya Down Stream Development Project

Estimated Cost Rs.	: 9352 Mn
Existing irrigable area	: 3200 Acs.
New irrigable lands	: 11,000 Acs.
Project is to be completed	: End of 2018

- Budget Allocation for Year 2017 : Rs. 2000.00 Million
- Allocation released by Project Director to Irrigation Department up to now: Rs. 1,300.00 Million
- Expenditure from January 2017 up to 31<sup>st</sup> December 2017 – Rs. 1,986.50 Million
- Cumulative expenditure of the project up to 31<sup>st</sup> December 2017 – Rs. 4,256.23 Million
- Cumulative Financial progress up to 31<sup>st</sup> December 2017 – 45.51 %
- Cumulative Physical progress up to 31<sup>st</sup> December 2017 – 48 %
- Liabilities – Rs. 93.00Million

## Main components

Activity	Progress
Construction of Alikota Ara reservoir	98.80%
Construction of Kuda Oya reservoir (40 MCM) including Access Road	48%
Improvements to capacity of Handapanagala (16 MCM)	78%
Construction of canal from of Kuda Oya reservoir to Sinhalayagama (30 km)	26%
Construction of Handapanagala LB canal & Rehabilitation of RB system	30.2%
Construction of canal from Alikota Ara to Kuda Oya (34 km)	13.2%
Improvements of Minor Tank & Irrigation network	31.5%
Land acquisition and resettlement at Bandarawela & Thelula providing infrastructure	77.9%
Project Management, Design, Supervision, Overheads, Levies, Taxes, Transport facilities, duties and maintenance of vehicles	6.60%



Construction of Alikota Ara Dam



Improvement for Handapanagala Dam

## b. Irrigation Management Division

Established in 1984, Irrigation Management Division (IMD) implements Integrated Management of Agricultural Settlements (INMAS) Program through Participatory Irrigation Management (PIM) approach in 54 Major Irrigation Areas (MIAs), having more than 400 ha command area each under inter-provincial irrigation systems. The vision of this organization is to develop a self-reliant irrigated-farming community for self-management of the irrigation resources. It is expected to achieve a sustainable economic development of farm families through implementing the said approaches and enhancing productivity of unit of irrigation water by promoting participation and contribution of farmer organizations (FO), Government, Non-Government Organizations (NGOs) and Private Sector (PS).

Primary responsibility of this Division is to enhance living conditions of farming community in major irrigation schemes through establishment and strengthening of farmer-based institutions with the objectives of improved management, enhanced productivity, improved operation and maintenance of irrigation sub-system, and facilitating and creating enabling environment for increased agricultural production and productivity.

### Financial Performance Summary of the Irrigation Management Division 2017

The Total capital expenditure allocation approved for the Irrigation Management Division at the end of 2017 was Rs. 136.41 Mn.

The total expenditure at the end of year was Rs. 103.538 Mn.

		<b>Approved capital expenditure Allocation (Rs. Mn.)</b>	<b>Total expenditure at the end of year (Rs. Mn.)</b>
1	Rehabilitation and Improvements to capital Assets	28.06	22.663
2	Acquisition of capital Assets	105.85	78.383
3	Capacity building	2.5	2.492

The capital expenditure allocation for land and land improvement under the Acquisition of capital assets was Rs. 40.309 Mn. and the expenditure at the end of the year was Rs. 22.268 Mn. and works carried out are described as follows.

## 1. Strengthening and empowering Farmer Organizations (FO)

1.1) This Division has established 874 FOs in 54 Major Irrigation Area under its purview and facilitated and guided them to adopt good-governance practices through the following activities.

	Activity	Unit	Target	Progress	%
1	Preparation of FO final accounts	No	874	825	94
2	Updating of FO accounts	No	852	826	97
3	Facilitating auditing of FO accounts	No	779	664	85
4	Conducting FO elections	No	517	396	77
5	Conducting FO Annual General Meetings	No	1,862	1,744	94
6	Conducting FO monthly committee meetings	No	8,809	7,858	89
7	Updating FO membership register	No	588	584	99
8	Introducing and ensuring the adoption of Amended Constitution and Systems and Procedures for FOs	No	295	195	66
9	Establishing Subject Committees in FOs (to enhance women's participation)	No	46	70	104
10	Establishing Model FOs		72	56	78
11	Facilitating registration of System Level FOs under Agrarian Services Act No. 46 of 2000	No	12	11	93
12	Increasing FO Fund	Rs. (000)	32,678	32,546	100

### Annual General Meeting of FOs



Padaviya Scheme



Kirindi oya Scheme

### Executive Committee meeting of FOs



Nachchaduwa Scheme



Kirindi Oya Scheme

### Elections of FO Office Bearers



Mee Oya Scheme



Batalagoda Scheme

### Audit Reports



Tabbowa Scheme



Rajanganaya Scheme

### Women Sub Committee meeting



Muthukandiya Scheme

### Updating Membership Register



Akkarapattu Scheme

1.2) FO Offices constructed under the Aftercare program of PEACE Project were opened at Diwullewa, Danduwawa, Kebellewa, Budu Muttawa of Ridee Bendi Ela Scheme. Computers and office equipment were provided for these offices. Similar offices were opened for Ranketha, Sri Udara, Perakum, and Wijaya FOs of Rajanagana Scheme with their own funds. Those offices were also provided with computers and office equipment by this Division.

### Opening of FO offices and distribution of equipment



Ridee Bendi Ela – Diwullewa FO



Ridee Bendi Ela – Danduwawa FO



Rajangana – Sri Udara FO



Rajangana – Wijaya FO

1.3) Two Follow-up Workshops were conducted at Minipe and Morawewa to identify the shortcomings in FO operations and to take remedial measures. Steps are being undertaken to strengthen the FOs on the basis of the findings at these workshops.

### Follow-up workshops



Morawewa Scheme



Minipe Scheme

1.4) This Division conducted training programs for FO Leaders on the following aspects in order to strengthen participatory management process and ensure adoption of good governance procedures in FOs.

Training program	Target (No. of persons)	Progress (No. of persons)	Achievement %
Financial management	2,695	1,673	62
Improving leadership qualities	35	35	100
Strengthening FOs	750	305	41
Income management	100	80	80
Training on Internal Auditing	105	112	107
Awareness on Climate Change and Mitigation	100	100	100
<b>Total</b>	<b>3,785</b>	<b>2,305</b>	<b>61</b>

### Training on Financial Management



Ridiyagama Scheme



Nachchaduwa Scheme

## Training on Income Management



Giritale Scheme



Tisa Weva Scheme

1.5) This Division facilitated timely conduct of the Pre-Seasonal (Pera – Kanna) Meetings and the Seasonal (Kanna) Meetings in order to ensure timely availability of input supply including irrigation water in major irrigation schemes under its purview. Also, the monthly Project Management Committee meetings were held regularly with the participation of relevant stakeholders and FO representatives to monitor and review the progress of decisions arrived at the Seasonal Meetings and implement steps required to improve the efficiency of irrigation management.

Type of Meeting	Unit	Target	Achievement	%
Project Management Committee	No	474	468	99
Pre seasonal meetings	No	85	85	100
Seasonal meetings	No	97	97	100

### Project Management Committee meeting



Hakwatuna Oya Scheme



Parakrama Samudraya Scheme



### Pre-seasonal (Pera – Kanna) meeting



Murapola Ela Scheme



Damana Scheme

### Kanna (Seasonal) meeting



Minipe Scheme



Kantale Scheme

- 1.6) Awareness programs were conducted for 19,200 farmers and farmer leaders on ill-effects of narcotics and alcohol use in order to distract the farmers from such vices and improve the health of community in major irrigation schemes. Awareness was given for 990 school children to educate parents in turn.

### Awareness on effects of narcotic drug use



Mee Oya Scheme



Batalagoda Scheme



Padaviya Scheme



Ridee Bendi Ela Scheme

## 2. Participatory Maintenance and Water Management program

Operation and maintenance (O&M) of irrigation sub-system consisting of Distributory Canals (DC) and Field Canals (FC) of 54 Major Irrigation Areas coming under the purview of IMD are turned over for FOs as self-managed systems. This division is responsible for guiding and directing FOs to undertake this task in a qualitative manner and also to improve the skills of FOs to handle such tasks.

2.1) The following Table indicates the contribution by FOs in O & M of irrigation sub system under the guidance of IMD.

Activity	Target (Rs. '000)	Achievement (Rs. '000)	%
Grass Trimming and silt removing on DCs and FCs	109,587	68,062	62
Shrama Dana for jungle clearing, desilting and other works*	80,268	67,480	84
Maintenance of irrigation structures and canals	13,137	19,277	147
Maintenance of farm roads	27,934	18,266	65
Maintenance of drainage canals	12,257	11,937	97
<b>Total</b>	<b>243,183</b>	<b>185,022</b>	<b>76</b>

\* 01 Man Day is estimated at Rs. 800.00.

## DC and FC Structures maintained under regular maintenance program



Gal Oya Left Bank



Ridee Bendi Ela Scheme



Nachchaduwa Scheme



Thisa Weva Scheme

## Maintenance of Drainage Canal



Wahalkada Scheme

## Introducing machinery for grass cutting



Ridiyagama Scheme

## Maintenance of farm roads



Nachchaduwa Scheme



Allai Scheme

## Conducting Sharamadana



Muruthawela Scheme



Gal Oya Left Bank Scheme

2.2) The following activities were conducted by FOs under the guidance of this Division to improve the participatory maintenance and water management program of irrigation sub-system. In spite of constraints and oppositions, farmer awareness is being conducted on the need to protect the canal reservations which has become a common problem nationwide.

Activity	Unit	Target	Achievement	%
Preparation of plans for regular maintenance programs by FOs	No	149	126	85
Updating of plans on regular maintenance program	No	516	355	69
Demarcating and protection of reservation boundaries	Km	923	609	66
Increasing O&M fund	Rs'000	72,780	50,182	69
Erection of Notice Boards	No	385	437	114
Facilitating and assisting to conduct rituals, beliefs and offerings associated with irrigated agriculture	No	427	341	80

## Preparation of Maintenance Plans and completed Maintenance Plans



Padaviya Scheme



Maha Kanadarawa Scheme

## Demarcation of canal reservations and establishing concrete posts



Wahalkada Scheme



Giritale Scheme



Inginimitiya Scheme



Giritale scheme

**Establishing Communication Boards**



Rajangana Scheme



Wahalkada Scheme

**Conducting irrigation cultural festivals**

**Enfloating Milk Pots**



Hakwatuna Oya Schem

**Praying for rains**



Akkarapattu Scheme

**Pot turn-over (Mutti Nemime) festival**



Maha Wilachchiya Scheme

**Pirith Chanting for rains**



Bathmedilla Scheme

### Milk spilling (kiri ithiraweema) festival



Ridee Bendi Ela Scheme



Maha Kandarawa Scheme

2.3) In order to instill the State Policy on minimizing use of poisons at field level, a program is being conducted to introduce cultural and traditional practices for promoting environmentally friendly cultivations and maintaining cleanliness of irrigation water by reducing poison use. With the objective of achieving a primary item of this concept of getting FO leaders and farmers ready for the Yala Harvest Offering to the Temple of Tooth Relic, FOs were guided to conduct offering practices associated with supreme relics of Lord Buddha with the objective of introducing practices of supreme harvesting and protection of crops from wild animals for 27 FOs of MIAs.

### Offering Home Garden produce to supreme relics and chanting pirith for purification of irrigation water



Ridee Bendi Ela Scheme



Maha Kandarawa Scheme



Badulu oya - Bathmedilla Schemes



Parakrama Samudra Scheme



Wahalkada Scheme



Mee oya Scheme

Yala harvest offering for the Tooth Relic for 2017 was conducted by this Division with the participation of Minister of Irrigation and Water Resources Management, Hon. Vijith Wijayamuni de Soysa on the 01<sup>st</sup> October 2017 for the second year at the Temple of Tooth Relic with the assistance of 4,500 farmers and farmer leaders. In addition similar offerings were conducted at Pulleyar Kovil, Meera makkam Mosque, St. Paul's Church. It was participated by members of all religions and ethnicities.







2.4) The following awareness and training programs were conducted to increase the knowledge and skills of farmers and FOs to enhance the quality of canal maintenance and improve efficiency of water management.

<b>Awareness and Training program</b>	<b>Target (No. of persons)</b>	<b>Progress (No. of persons)</b>	<b>%</b>
Regular maintenance	2,100	925	44
Water Management	1073	414	39
Reservation protection and maintenance	200	296	148
Legal authority	920	419	46
Training for Water Masters	460	115	25
<b>Total</b>	<b>4,753</b>	<b>2,169</b>	<b>46</b>

Expected progress could not be achieved due to inability to cultivate during Yala season owing to the drought.

#### **Water management training**



Minipe scheme

#### **Regular maintenance training**



Ridiyagama scheme

- 2.5) A publication named 'VAAPI', is being prepared to record the recent history of Minneriya Scheme under the guidance of this Division.

### Farmer awareness programs



Minneriya Scheme



Muthukandiya Scheme

- 2.6) The following programs were conducted at major irrigation schemes under this division in commemorating the World Water day on 21<sup>st</sup> March.

Program	Unit	Target	Achievement	%
Awareness for FO leaders	No	2,120	1,141	54
Awareness for farmers	No	7,103	5,930	83
Awareness for students	No	7,110	3,797	53
Conducting competitions on art, essays and debates	No	375	150	40
Conducting Shramadana	Man days	15,630	4,529	29

### Awareness programs for water conservation



Tabbowa Scheme



Kirindi Oya Scheme

### Awareness programs for school children on water conservation and preventing water pollution



Muthukandiya Scheme



Ridee Bendi Ela Scheme

2.7) This division guided farmers to undertake land preparation in 47,593 ha with rain water in order to increase the water productivity and mitigate effects of climate change. Also, this Division facilitated and guided preparation of irrigation schedules and water distribution for 1,213 distributory canals (DC) and 1,942 field canals (FC) and conducting 279 water management committees in order to maximize water use efficiencies.

### 3. Increasing agriculture production & productivity, contribution to Nation food security, Increasing Farm Family Income, adaptation to climate change, Assisting achieve Sustainable Development goals.

3.1) The following Table indicates the agricultural production and productivity of 54 major irrigation areas under integrated and participatory irrigation management approach, coordinated, guided and facilitated by IMD.

Description	Unit	2016/17 Maha	2017 Yala	2017 Total
Extent cultivated with paddy	Ha	117,258	82,936	200,194
Extent under Other Field Crops and Vegetable	Ha	1,783	5,463	7,246
Extent under Perennial crops (banana, sugarcane)	Ha	4,236	4,236	4,236
Total extent cultivated	Ha			211,676
Cropping Intensity	%			127
Total paddy production	Mil.tons	0.527	0.359	0.886
Total value of paddy	Mil. Rs.	20,029	12,562	32,591
Total value of OFCs and vegetables	Mil. Rs.	318	1,144	1,462
Total value of Perennial crops production	Mil. Rs.			2,500
Total value of paddy, OFCs, vegetables and perennial crops	Mil. Rs.	20,347	13,706	36,553

The targets for rice and OFC cultivations could not be achieved owing to the water shortage in most of the major irrigation schemes.

## Other Field Crops

### Maize



Bathmedilla Schemes



Batalagoda Scheme

### Soya Beans



Dewahuwa Scheme



Huruluweva Scheme

### Chilli cultivation



Nachchaduwa Scheme

### Vegetable cultivation



Nachchaduwa Scheme

### Big Onion cultivation for seed production



Dewahuwa Scheme

### Big Onion cultivation



Hurulu weva Scheme

### Ground nut



Neelabemma Scheme

### Kurakkan (finger millet)



Giritale Scheme

3.2) This Division facilitated and coordinated the use of seedling Broadcasting technology (Parachute Method) in 914 ha with the objectives of increasing the rice yields and minimizing use of agrochemicals. Also, farmers were promoted to use Mechanized Transplanter in 243 ha in collaboration with Department of Agriculture. Additionally, use of organic fertilizer was promoted in 51,680 ha.

### A nursery prepared for Seedling Broadcasting and the adoption of the technological process



Wahalkada Scheme



Dambarawa Scheme

### Transplanting with the machine



Minipe Scheme



Parakrama Samudraya Scheme

- 3.3) In spite of the water shortage during Yala season, this Division was able to promote 3<sup>rd</sup> season Green Gram cultivation in 4,065 ha at Kirindi Otya, Ridiyagama, and Giritale Schemes in collaboration with Departments of Irrigation and Agriculture and Farmer Organizations bringing an income of Rs.M. 81. It is worth to note that this program not only brought income for farm families but also added a large quantity of organic matter to the soil.
- 3.4) Owing to water shortage, only around 1,000 acs were allowed to cultivate in Padaviya during 2017 Yala season but this status was used as an opportunity to produce seed paddy for 2017/18 Maha season by implementing a seed paddy production program in 1000 acs 2017 Yala season. Around 120,000 bushel of seed paddy was produced at a market value Rs.M. 184.0. A land rent of 20,000 bushel was paid to the FOs by the seed paddy producers. The seed paddy quantity was distributed among 5,000 farmers free of charge, who could not cultivate during Yala 2017. This program enabled the availability of total seed paddy requirement of 45,000 bushel Padaviya Scheme for 2017/18 Maha season. Also, through this program it was possible to sell the excess of 75,000 bushel to neighboring areas and solve the seed paddy shortage of Anuradhapura District as well partly.

#### **Paddy cultivation for seed production and distribution of seed**



In addition, similar program was implemented at Giant's Tank Scheme of Mannar where regular cultivation could not be implemented due to water shortage. Seed paddy production program was implemented to produce paddy required for 2017/18 Maha season in 320 acs which yielded 22,000 bushel of seed paddy. Though expected output was not reached due to Brown Plant Hopper infestation, it was possible to contribute to the seed paddy requirement of the District and neighboring areas. Seed paddy was sold at a subsidized price of Rs. 1500/- per bushel for farmers.

**Harvesting of seed paddy in traditional style**



**Stock of Seed paddy stored**



3.5) IMD guided and facilitated the following activities from 2017-10-06 to 12 to make farmers ready for the 2017/18 Maha season under the National Food Production Campaign.

- Conducted shramadana for maintaining DCs and FCs with 12,955 Man Days
- Established 13 Organic Fertilizer Production Units to promote organic fertilizer use and reduce chemical fertilizer use
- Planting 4,000 Glyricidia cuttings to use as raw material for organic fertilizer production
- Planting 4,039 fruit plants in home gardens
- Releasing 100,000 fingerlings to Muruthawela reservoir to promote inland fishery program in collaboration with NAQDA
- Planting program in RPM offices and officer's Home Garden

3.6) With the objective of increasing the income from homesteads, IMD implemented a program at Kirindi Oya Scheme for cultivating 4,500 mango plants with 180 farmers. Tom EJC mango variety having export potential was used for this program. Around 63 % of the plants could be saved even with the severe drought conditions prevailed. The plants are bearing at present and an economic yield is expected from next year.



Similar program was initiated during 2017 at Mee oya, Minneriya, Hakwatuna oya, Dewahuwa, Ridiyagama, Tabbowa and Inginmitiya to plant 22,000 plants of Tom EJC variety, but was unable to fulfill the program owing to shortage of plants and postponed to 2018. Similarly the program planned to plant 10,000 Tom EJC in Tabbowa, Neelabemma, Allai, Ridiyagama, Ridde Bendi Ela and Muruthawela by Ministry of Primary Industries also failed due to shortage of plants. Yet, 400 farmers were trained on cultivation of Tom EJC variety.

- 3.7) This Division facilitated, guided and coordinated to implement an organic fertilizer production program in collaboration with FOs to promote use of organic fertilizer and minimize use of chemical fertilizers to support the theme “Toxin-free agriculture- Healthy People”. Under this program, Ethdathgala FO of Waeli Oya and Pragathi FO of Ridiyagama initiated organic fertilizer production in 2016 and around 19,500 kgs were sold at a subsidized price to farmers in 2017. Similarly, organic fertilizer production program was implemented in 2017 at Parakrama Samudraya, Ridee Bendi Ela, Badulu oya, Bathmedilla, Minipe, Murapola ela, Allai and Wahalkada and 26,000 kgs of organic fertilizer was sold to farmers under subsidized price.

In addition, IMD coordinated and guided to plant 20,000 Glyricedia cuttings to be used as a material for organic fertilizer production.

#### Production process of organic fertilizer



Ridiyagama scheme



Ridee Bendi Ela Scheme



Parakrama Samudra Scheme



Waeli Oya Scheme



- 3.8) A dialogue was organized on 2017-03-01 at Bandaranaike Memorial International Conference Hall among agriculture-linked State Institutions, Private entities, financial institutions, research institutions, universities, and FOs to obtain views and ideas for enhancing agriculture and irrigation productivity as well as to increase farm family income. A large number of ideas and suggestions were generated during this dialogue and some suggestions such as granting credit for FOs, milk production with private sector, extending Tom EJC cultivations, implementing programs with NADEP and SEMA of Presidential Secretariat are being implemented at present.



- 3.9) This Division facilitated and guided to implement programs to increase milk production and thereby increase farm family income at Allai, Kantale, Maha Diwulweva, Maha Kanadarawa, Nuwara wewa and Mruthawela Schemes. The progress is given below.

Activity	Unit	Quantity
Facilitate to obtain dairy cattle	No	42
Facilitate to establish Cattle Sheds	No	13
Facilitate to cultivate pasture CO3	Ha	3

IMD coordinated fund availability of Rs.M. 11.0 from the banks for the above purposes.



Maha Kanadarawa Scheme

3.10) This Division facilitated planting of 1,941 mango plants, 9,961 coconut seedlings and 500 soursop plants under homestead development program.

3.11) This Division facilitated and guided planting of 1,009 ha of banana and 553 ha of papaw, and 1,185 pepper plants in homesteads with the objective of increasing the farm income.

### Papaw cultivation



Hurulu Weva Scheme



Maha Kanadarawa Scheme

3.12) This Division facilitated and guided a credit program to relieve the farmers from indebtedness at Ridee Bendi Ela, Rajangana, Padaviya, Wahalkada, Giritale, Kirindi Oya, Hurulu wewa, Damana, Akkaraipattu and Allai Schemes to enable 2,200 farmers to obtain loans from FOs to a value of Rs.M. 24.0. With this, the practice could be evolved in granting loans in time and payback credit in time.

### Granting credit



Ridee Bendi Ela Scheme

3.13) This Division facilitated and coordinated to enable 130 farmers to engage in income generation activities under the Revolving Credit program initiated by PEACE Project with the objective of increasing the farm family income. Rs.M. 22.0 of credit was granted through Wayamba and Rajarata Development Banks.

3.14) The following training and awareness programs were conducted to improve the knowledge and skills of farmers in order to increase the agriculture productivity, ensure food security, improve farmer adaptation to effects of climate change and sustainable development.

Program	Target	Achievement	%
	(No. persons)	(No. persons)	
1. Exchange of field experience	2,200	1628	74
2. Seedling broadcasting technology	700	60	9
3. Cultivation of Other Field Crops	1,995	2,591	130
4. Production and use of organic fertilizer	1120	449	40
5. On-Farm Water Management	595	842	142
6. Awareness on soil conservation	35	40	114
7. Pepper cultivation	262	117	45
8. Income generation activities	738	301	41
9. Other training and awareness programs	962	585	61
<b>Total</b>	<b>8,607</b>	<b>6,613</b>	<b>77</b>

#### Exchange of field experiences



Ridiyagama farmers exchanging experience at Jaffna



Ridee Bendi Ela farmers at Kirindi Oya exchanging ideas on Tom EJC mango Cultivation

#### Encouraging women for additional income generation activities



Mee oya scheme



Muthukandiya Scheme

3.15) Awareness programs were held at Muruthawela and Inginimitiya schemes for farmers and farmer leaders on Adaptation to climate change in collaboration with Sri Lanka National Partnership.

#### 4. Environmental protection and conservation

IMD coordinated and guided the following interventions for environmental protection and conservation of major irrigation schemes under its purview.

4.1) Awareness programs were conducted for 1,837 farmers and school children.

##### Environmental walk by school children



Murapola Ela scheme

##### Farmer awareness meeting



Bathmedilla scheme

4.2) Guided FOs to establish 140 collecting tanks at FC and DC levels to prevent empty agrochemical containers from dumping to the environment and to contain them.

##### Distribution and establishment of container tanks



Ridee Bendi Ela Scheme



Rajangana Scheme

4.3) Watershed Conservation Program is being implemented at pilot level at Muthukandiya reservoir with the participation of District Secretary, Divisional Secretaries, Forest Conservation Officials, Rubber Development Officials, Irrigation officials, FOs and the farmers who are engaged in farming in the reservoir watershed. Under this program, already around 600 farmers were educated and an implementation program has been formulated using Participatory Rural Appraisal (PRA) methodologies and with the participation of all the stakeholders to implement it in a sustainable manner. To facilitate this program 1,000 mammoties were distributed free of charge among the settlers in the watershed area. It is expected to propagate this concept and experience to the other major irrigation projects in future.

#### **Awareness program and distribution of mammoties**



#### **Preparation of Plans using Participatory Rural Appraisal**



## 5. Capacity Building of officers

The following training programs were conducted to improve the skills of officers at head office as well as in RPM offices.

Training program	ඉලක්කය	සහභාගී වූ සංඛ්‍යාව	ප්‍රතිශතය
Motivation and leadership training – Second phase	135	128	95%
Induction training for new drivers and laborers	24	24	100%
Annual Board of Survey	40	38	95%
Training of Trainers for income management	41	41	100%
Awareness on preparing Advance B Account	16	16	100%
<b>Total</b>	<b>256</b>	<b>247</b>	<b>96%</b>

### Motivation and Leadership Training



Motivation and Leadership Training



Induction training for drivers and laborers



### Training of trainers for income management



### 6. Progress Review Workshops

Workshop was held at National Institute of Plantation Management at Athurugiriya from 28<sup>th</sup> to 30<sup>th</sup> August 2017 with Resident Project Managers to review the progress of Implementation Program of 2017. Also, 02 workshops were held at Head Office to review the progress.

#### Progress Review Workshop of Resident Project Managers



### 7. Solutions delivered for public complains and grievances

The following number of solutions were given for public complains and grievances received at the Head Office and RPM offices.

❖ No. of complains and grievances received	11,156
❖ No. given solutions	10,304
❖ Percentage given solutions	92

### C. Water Resources Board (WRB)

Financial Performance of programmes implemented under Capital expenditure allocations for Water Resources Board.

Total Capital Expenditure allocation                      Rs. 30 Mn.  
Total expenditure    Rs. 27.883 Mn.

	<b>Projects Implemented</b>	<b>Allocation (Rs. Mn.)</b>	<b>Expenditure end of year 2017 (Rs. Mn.)</b>
1	Long term groundwater monitoring in most sensitive groundwater terrains in Sri Lanka	2.5	2.5
2	Development of groundwater monitoring network for Jaffna Peninsula	3.5	3.5
3	The study on the direct & indirect impacts on the climate changes on the coastal aquifer system of Sri Lanka	2.5	2.5
4	Water quality study in CKD prevailing areas of Ampara, Kurunegala, Trincomalee, Hambantota, Badulla, Moneragala and Polonnaruwa Districts.	5.0	4.986
5	Groundwater assessment of Kirindi Oya Basin	2.0	1.645
6	Development of Groundwater resources in the districts of dry zone area by construction of deep wells, pumps and water filters installation for emergency use.	5.0	4.645
7	Rehabilitation of hand pump tube wells in dry zone	2.5	2.283
8	Conducting of combine inspection with central environmental authority and other government agencies on environmental issues relating to groundwater depletion and pollution.	1.5	0.440
9	Capacity building & Rehabilitation and Improvement of Assets.	5.5	5.384

Implemented programmes and physical progress is described as follows.



## (1) Treasury Grant Funded Groundwater Monitoring and Studies

### 1.1 Long term ground water monitoring project in groundwater sensitive terrains (LTGM) (Rs. 2.5 Million)

Long term groundwater monitoring project is a combined project of 06 numbers of completed projects which have extended for long term groundwater monitoring. At the beginning of the project, test bore holes were constructed with considering different groundwater issues identified in each project areas to establish a monitoring network. The details of constructed test bore holes given in following table.

Si. No.	Project Name	Area	Constructed test wells
1.	Detailed hydrogeological study on coastal sandy aquifer extended from Colombo to Negombo	Coastal sand belt from Colombo to Negombo	78
2.	Identification Suitable Areas for Groundwater Recharge in Puttalam District	Puttalam, kalpitiya area	14
3.	Detailed hydrogeological study on Kelani River Basin	Kelani basin	10
4.	Identification of hazardous minerals in Anuradhapura district	Anuradhapura District	32
5.	Hydrogeological studies in Vauniya and Kilinochchi areas	Vauniya, Kilinochchi	35
6.	Hydrogeological study in limestone aquifer system in Mannar district	Mannar	55

Water sampling, Water quality analysis and water level monitoring and data recording are the current activities of the project.

Under these activities, target of the year 2017 and progress up to 31.12.2017 is as follows.

S.No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Water sampling	1000	100%
02	Water quality analysis	500	100%
03	Procurement of Computer units for central data base	04 computer units	100%
04	Procurement of EC,pH and Turbidity meters	04 units	100%
05	Data interpretation and preparation of maps	60 maps	60%



*Figure 01: Water sampling- Kelani basin*



*Figure 02: Water level monitoring – kelanibasin*

## 1.2 Development of Groundwater Monitoring Network for Jaffna Peninsula (Rs. 3.5 Million) Objective

The main objective is to identify the status of groundwater in the selected areas and establish a long term monitoring network to observe improvements of groundwater with the implementation of mitigation programs and finally to go for the Groundwater model for the region. In addition to the main objective, an identification of the availability of fresh groundwater areas through quality assessment and identification of the influence of agricultural practices, bacteriological pollution and other factors to be affected to the groundwater of the Peninsula. Furthermore, it is expected to interpret the hydro-chemical evolution of groundwater through the limestone aquifer by determining the chemical characteristics and make the recommendations of most relevant controls on the groundwater composition.

Under this project, following works have been completed in Jaffna Peninsula.

S.No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Carry out hydrogeological surveys	15	100%
02	Construction of bore holes	15	100%
03	Conducting pumping tests	15	100%
04	Levelling of monitoring well points	15	100%
05	Water sampling and well monitoring	600	100%
06	Water quality analysis	300	100%
07	Procurement of laptop Computers	02 computer units	100%
08	Procurement of EC, pH and Turbidity meters	04 units	100%
09	Data interpretation and preparation of maps	Maps	75%



*Figure 3: Analysis of water sample in the field*



*Figure 4: Collection of water samples in the field*



*Figure 5: Water sample analyzing in the Laboratory, Jaffna*

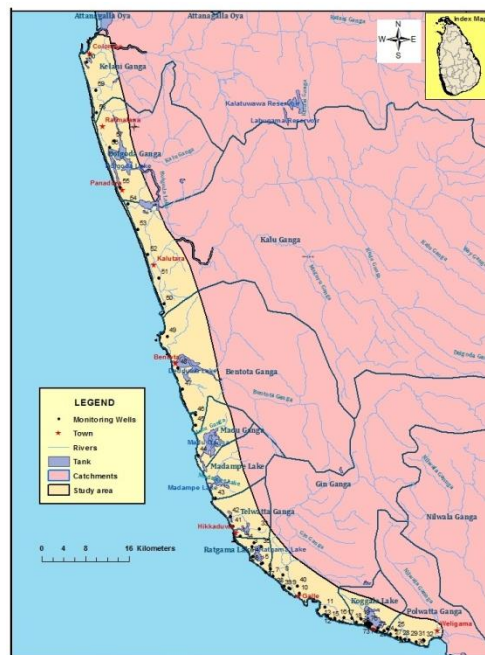
### **1.3 The Study on the Direct and Indirect Impacts on the Climate Changes on the Coastal Aquifer System of Sri Lanka (Rs. 2.5 Million)**

- **Western Coastal and Trincomalee Groundwater Aquifer**

To achieve the project objectives of this project following activities have been carried out during the period from January to December 2017.

- **Water level measuring, Water sampling and Water sample analysis**

To identification of salinity level changes in coastal aquifer system of Sri Lanka through a proper groundwater monitoring network and to determination of the fluctuation of fresh water ground water interface, we have selected 50 nos. of shallow wells and 24 nos. of test wells (constructed by this project) in the western coastal zone which exist from Colombo to Weligama coastal strip and Trincomalee district on Eastern coastal strip. Water levels are measured and 150 no. water samples were analysed for 17 chemical parameters.



*Figure 06: Established groundwater monitoring network areas, sampling and water level monitoring points (Colombo to Weligama coastal strip)*

#### **1.4 Water Quality Study in CKD prevailing areas of Ampara, Kurunegala, Trincomalee, Hambanthota, Badulla, Moneragala and Polonnaruwa districts (Rs. 5.0 Million)**

This is an ongoing project started in 2014 in the CKD prevailing areas of Ampara, Kurunegala, Trincomalee, Hambanthota, Badulla, Moneragala and Polonnaruwa districts. The following activities have been completed up to 31.12.2017.

Under this project, following works have been completed in above areas.

S. No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Carry out hydrogeological surveys	20	100%
02	Construction of bore holes	20	100%
03	Water sampling and well monitoring	500	100%
04	Water quality analysis	150	70%
05	Water clinics and awareness program	10	50%
06	Procurement and Installation of hand pump tube wells	20	100%
07	Procurement of laptop computer	01units	100%



*Figure 7: Conducting geophysical investigation*

### 1.5 Groundwater Assessment of Kirindi Oya Basin (Rs. 2.0 Million)

This study was started in 2015 to assess the groundwater in the basin qualitatively and quantitatively.

The achievements under this target so far are as follows;

S. No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Carry out hydrogeological surveys	10	100%
02	Construction of bore holes	10	100%
03	Conducting pumping tests	10	100%
04	Levelling of monitoring well points	35	100%
05	Water sampling and well monitoring	200	100%
06	Water quality analysis	100	100%



*Figure 8: Collecting water sample from a tube well*

### **1.6 Development of groundwater resources in the districts of dry zone area by construction of deep wells, pumps and water filter installation for emergency use (Rs. 5.0 Million)**

The main objective of this project is to provide safe and clean drinking water to the rural community who are living in most water scarce and drought-stricken areas in Sri Lanka. During the period from January 2017 to December 2017, following activities were completed in Moneragala, Kurunegala, Puttalam, Kandy and Matale districts.

Under this project, following works have been completed in above areas.

<b>S. No.</b>	<b>Activity</b>	<b>Target of the year 2017</b>	<b>Progress up to 31.12.2017</b>
01	Carry out hydrogeological surveys	15	100%
02	Construction of bore holes	15	100%
03	Conducting pumping tests	05	100%
04	Procurement and installation of submersible pump	05	100%
05	Procurement of EC, pH and Turbidity meters	04 units	100%
06	Procurement of RO filters	05	100%



*Figure 9 & 10: Conducting a pumping test at Moneragala*

### 1.7 Rehabilitation of Hand Pump tube wells in Dry Zone (Rs. 2.5 Million)

This program was carried out to rehabilitate old hand pump installed in Badulla, Moneragala and Hambantota Distrcts. Following activities were completed during the period from January 2017 to December 2017.

S.No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Cleaning of old tube wells	25	20%
02	Repairing of old hand pumps	50	75%
04	Procurement of hand pumps.	20	100%



*Figure 11: Rehabilitation of a hand pump*

### 1.8 Conducting of combined inspection with Central Environmental Authority and other Government Agencies on Environmental issues relating to groundwater depletion and pollution (Rs. 1.5 Million)

The project objective of this study is to identify environmental issues relating to ground water depletion and pollution due to soil, gravel, rock, clay excavation, sand mining and over extraction of groundwater. The studies and inspection was carried out with the coordination of Central Environmental Authority and other relevant Agencies. Hundred (100) sites were inspected in Colombo, Gampaha, Kurunegala, Puttalam, Anuradhapura, Moneragala, Kegalle and Kalutara Districts with the participation of officers from CEA, GSMB, NBRO and other relevant authorities.

## (2) Ministry Funded Groundwater Development Projects

### 2.1 Well cleaning program in flood affected areas in Colombo, Ratnapura, Kalutara, Galle, Matara, Hambantota and Kegalle Districts. (Rs. 20.0 Million)

The drinking water wells of the flood affected areas were contaminated by flood water and therefore, Water Resources Board was initiated well cleaning programme to clean those wells and to provide safe drinking water for the affected peoples.

The summary of well cleaning programme is given as follows;

District	No.of wells cleaned
Ratnapura	490
Matara	786
Kalutara	548
<b>Total</b>	<b>1824</b>

During the well cleaning Program, 784 water samples were analyzed for pH, EC and Microbiology.



*Figure 12& 13: Well cleaning at Matara district*



*Figure 14& 15: Analysis of water samples at the Field*



## 2.2 Study on Potential realization of Groundwater Management and Conservation in Jaffna Peninsula (Phase I - Preparation of Well Inventory) (Rs. 9.0 Million)

The groundwater development in Jaffna Peninsula must be done more scientifically. Therefore, Water resources Board has planned to initiate groundwater study to assess the groundwater potential of the peninsula in order to develop a groundwater management master plan for Jaffna Peninsula. Under this program, Five (05) awareness program were conducted with the participation of District Secretary –Jaffna, Additional Secretary-Ministry of Irrigation & Water Resources Management and other relevant stake holders to prepare well inventory for Jaffna Peninsula. And also arrangement has been made to purchased Eighty (80) numbers of GPS and Eighty (80) numbers EC meters for the study.



*Figures 16 & 17: An Awareness Programme*

## 2.3 Monitoring Groundwater Level and Water Quality Changes in Shallow Aquifer Systems associated with the Irrigation Schemes (Rs. 3.0 Million)

The objective of this study is to identify the water quality and quantity changes associated with new irrigation schemes in Yan oya and Malalwathu oya basins.

The following actives were completed under this study from January to December 2017.

S.No.	Activity	Target of the year 2017	Progress up to 31.12.2017
01	Collection of data	100	100%
01	Carry out hydrogeological surveys	25	100%
02	Construction of bore holes	25	80%

## 2.4 Groundwater Development in Dry Zone Areas under the Ministry Funds (43.0 Million)

The main objective of this project is to provide safe and clean drinking water for people living in Dry zone areas in the country and following activities have been completed during the period from January, 2017 to December 2017.

## 1. Rehabilitation of minor water supply schemes in Moneragala District

Under this project following instruments and equipment have been purchased for the rehabilitation works.

1. Purchased 02 Nos of Resistivity meters
2. Purchased 10 Nos of submersible pumps

## 2. Improvement of Pallegama drinking water project in Moneragala District.

Item	Description	Progress
01	Supply and installation of centrifugal water pumps with all necessary fittings with panel board.	100%
02	Supply of electricity for pump house	100%
03	Wiring of pump house	100%



*Figure 18: Construction of Pump House at Pallegama*

## 3. Construction of deep tube wells, dug wells and installation of water pumps in drought affected areas.

Following activities were completed under this project in Moneragala, Puttalam, Anuradhapura and Kurunegala Districts.

Item	Description	Progress
01	Number of hydrogeological investigation conducted	35
02	Number of deep tube well constructed	30
03	Number of pumps installed	15

## 4. Small water supply scheme at Thorathupitiya-Athimale

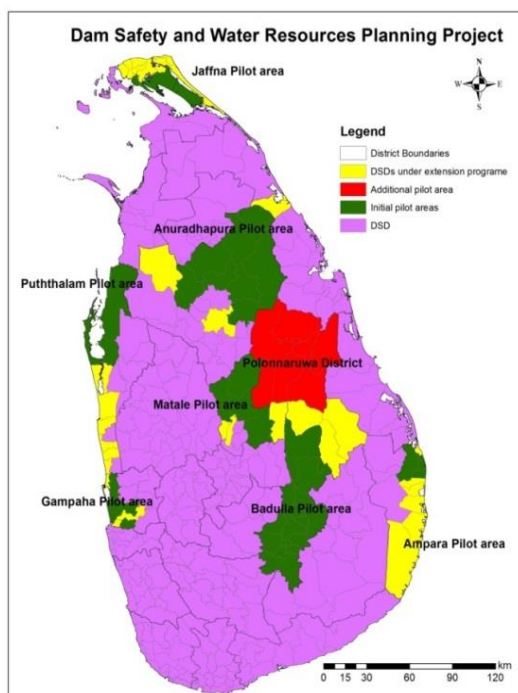
Following activities were completed under this project at Thorarathupitiya-Athimale in Moneragala District.

Tube well construction	:	Completed (01 No.)
Construction of water tank	:	Completed
Procurement of PVC pipes	:	Completed

### (3) Expansion of established Groundwater Monitoring Network in selected 07 Pilot areas of Sri Lanka (DSWRPP-AF)

The spatio-temporal assessment of hydrogeological condition and water chemistry of the groundwater resources of the country has not been addressed by a systematic approach due to various reasons during the past few decades. However the study on present status, threats, impact on these resources and subsequent establishment of a well representative surveillance groundwater monitoring network are of vital importance in long term groundwater resources management and in implementation of remedies. In this context, 07 Pilot areas covering 37 Divisional Secretariats of seven districts in seven provinces identified by WRB and activities related to the establishment of groundwater monitoring program was initiated in 2010 under the Ministry of Irrigation and Water Resources Management. Water Resources Board (WRB) was entrusted to carry out this project as a sub-component of component-2 of the Dam Safety and Water Resources Planning project (DSWRPP).

The identified pilot areas are selective DSD's of Jaffna, A'pura, Mathale, Puttalam, Gampaha and Ampara Districts considering certain issues recorded and reported with respect to water quality and Quantity. The main noted issues were: excess application of fertilizer and pesticide, over abstraction of water resulting sea water intrusion, poor sanitary facilities and high concentration of Fluoride. Further, agro wells are highly pumped and also no proper criteria of construction and management. All the above causes were taken into consideration during the process of establishing the network. Awareness programs, three national level workshops, school level programs were conducted to gather different opinion to fulfill the objectives.



*Figure 19: Pilot areas of Phase I & Phase II of the project and the newly selected Polonnaruwa Pilot area.*

*Activity progress on each of the pilot area as at the end of December 2017*

S.N.	Pilot Area	CWQ			Geophysics				TW Drilling		Geo Logging		Test Pumping		Levelling		Extended Area WQ					Awareness Program	
		Wet	Dry	Amt	1D		2D		Tgt	Cmpl	Tgt	Cmpl	Tgt	Cmpl	Tgt	Cmpl	Tgt	Cmpl	A	C	D	Tgt	Cmpl
					Tgt	Cmpl	Tgt	Cmpl															
1	Ampara		27	59	20	20	20	20	10	10	6	0	4	0	50	0	100	121	66		55	1	1
2	A' pura			34	20	17	NR	NR	10	10	6	0	3	0	50	0	100	99		98	0	2	1
3	Matale		39	44	20	15	NR	NR	15	7(2)	6	0	4	0	40	0	50	0				2	1
4	Puttalam			30	30	28	20	10	20	10(5)	6	0	5	0	50	0	120	56			56	3	1
5	Gampaha			24	20	0	10	0	10	0	2	0	3	0	40	0	100	87		87		2	1
6	Jaffna		124	124	30	15	20	0	15	15	6	0	5	5	50	0	140	156		128		3	1
7	Kalpitiya			15	20	20	NR	NR	15	15	NR.	NR.	NR.	NR.	NR.	NR.	NR.	NR.	NR.	NR.	NR.	0	0
8	Polon'wa				100	100	NR	NR	21	0(3)	NR.	NR.	21	0	50	0	200	125	55	20		3	1
9	Badulla			33	20	12	NR	NR	20	17	NR.	NR.	NR.	NR.	50	0	50	72		46	26	1	1
	<b>Total</b>			363	280	227	70	30	136	81	32	0	45	5	380	0	860	716	121	379	137	17	8

Tgt - Target

Cmpl - Completed

CWQ – Continuous Water Quality Monitoring

TBS – To be Scheduled

A – Analysis in progress

C – Analysis completed

D - Discarded, no analysis

NR. – Not Relevant

Specific approach was formulated to achieve outputs based on the issues identified and objectives of each pilot area. The study was focused more towards water chemistry in the pilot areas except Matale pilot area which addresses on the focal problem of groundwater depletion due to over abstractions. The main work components of these assessments were

- i) aware the community and stake holders on present situation,
- ii) Identify groundwater flow regime and
- iii) Determine the spatio-temporal water quality distribution through detail water quality analysis from the shallower & deeper aquifer systems during dry period as well as wet period.

Awareness programs, Preliminary field investigations, base map preparations, water sampling, groundwater level monitoring, in-situ water quality testing, 1-D & 2-D Geophysical surveys, test bore hole constructions, pumping tests, water quality analysis (physical, chemical, heavy metal, bacteriological and pesticides), DGPS levelling of monitoring points, result analysis and interpretation/processing work are some of the principal activities included in the entire methodology. The establishment of monitoring network was finalized for each respective pilot areas based on the output of these activities.

The above figure indicated the initially selected pilot areas and extension areas including the new pilot area added in Polonnaruwa District. The summary table above indicated the progress of each activities as cumulative basis up to August 2017.



*Figure 20: Analysis of water sample in the Laboratory*

#### **(4) Generated Funds**

##### **Commercial activities**

The following commercial activities were performed on the requests made by Government and other organizations including public requirements. The progress is given bellow.

No	Item	Amount
1	Hydrogeological Surveys	659
2	Tube Well Construction	166
3	Hand Pump Installation	32
4	Pumping Test	215
5	Tube Well cleaning	36
6	Chemical Analysis of Water Sample	756
8	Installation of Iron Removal Plant	34

## (5) Other activities of Water Resources Board

### World Water Day Program

World Water Day – 2017 was celebrated by the Water Resources Board under the theme of “Sustainable Protection and Conservation of Water Resources of Sri Lanka” on 22.03.2017 at BMICH. The Chief guest for this ceremony was Hon. Gamini Vijith Wijayamuni Soyza – Minister of Irrigation & Water Resources Management. About 135 Nos. School children participated at this workshop from Anuradhapura, Ampara, Polonnaruwa and Moneragala districts. An Art exhibition of the participated school children on “Water Conservation” was also held paralleled to this event. School Bags were given to all participated school children and special presents were given to the winners of the Art Exhibition.



*Figure 21: Launching official web site of WRB Laboratory*



*Figure 22: Distribution of certificates and bags*



*Figure 23: Art exhibition to the school children*



லாரிமார்டு னா சலு ஂமீபன் கலுமலாகரண அலாநலாஂலு  
நீர்ப்பாசன மற்றலும் நீர் வளங்கள் முகாமைத்துவ அமைச்சு  
MINISTRY OF IRRIGATION & WATER RESOURCES MANAGEMENT