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Note

Since original document prepared in English and translated to Sinhala/Tamil, in any discrepancy in words, English version shall be considered as correct.

குறிப்பு

மூல ஆவணம் ஆங்கில மொழியில் தயாரிக்கப்பட்டு சிங்களம் / தமிழ் ஆகிய மொழிகளுக்கு மொழி பெயர்க்கப்பட்டதால் மொழி பெயர்ப்பில் ஏதாவதொரு முரண்பாடு காணப்பட்டால் ஆங்கிலப் பிரதி சரியானதென கருதப்படும்

## **Message from the Secretary**

The Ministry of Irrigation and Water Resources Management has continued the forward thrust commenced last year in the development efforts, as per the vision and objectives and government priorities in this sector. Many progressive steps have been taken to steer the on – going programmes to achieve the goals and targets, and to adopt new planning and implementation strategies to prepare the background to embark upon heavier work programmes in the future.

The capital development programme and recurrent expenditure of the Ministry and her organizations was a heavy one, of the order of Rs.12, 138 million for capital works and a recurrent expenditure programme of Rs 3194 million. We have been able to achieve good progress in the work, with 70% of the budgeted expenditure utilized in the capital items and 95% utilized in recurrent expenditure. (Overall expenditure is 75% of the total allocation). This is a good achievement, in spite of the constraints and problems encountered in the field during implementation.

Towards the end of the year, we faced a major problem of flooding, with unexpected heavy rains. They had affected the work to some extent, but timely action taken by our field and supervisory staff helped in averting major disasters, and keeping the damages minimal. Although it is customary to expect heavy rains in the NE monsoon in irrigation areas, this season it was exceptional because the intensities were very high. We have to expect a certain reduction in the total yields in paddy cultivation areas and the authorities have been appraised of the situation. Action was taken to repair the flood damages in irrigation systems and continue with water issues for uninterrupted cultivation. We have also collaborated with the respective agencies and authorities to handle the flood and drainage issues in the Western Province.

As regards new development works in the irrigation sub sector, out of the major items under construction, Deduru Oya Reservoir in the NWP and Rambukkan Oya Reservoir in the EP, overall physical progress had been of the order of 40% and 52% respectively. Both these items are undertaken with local funds. In the Mahaweli areas, in Morogahakanda / Kaluganga project, roadwork and saddle – dams are in construction stage and other preliminary and resettlement works are in progress. Other medium scale and small development works have progressed satisfactorily.

Out of the major items implemented directly by the Ministry, in the Pro poor Economic Advancement and Community Enhancement (PEACE) Project, we were able to achieve 70% of overall physical progress. In the project for Increasing Capacity in Intergrated Management in Irrigated Agriculture in Dry zone (ICIM) it was able to achieve remarkable physical progress during the year.

In the Uma Oya Diversion project, implemented with assistance from the Government of the Islamic Republic of Iran, final report for EIA was submitted for approval. Surveys and investigations are being completed and the feasibility report is nearing completion.

The Dam Safety and Water Resources Planning Project (DSWRPP) commenced in 2008 with World Bank assistance, for improving dam safety, hydro – meteorological monitoring framework and Water Resources Planning capacity in Sri Lanka, with long terms objectives for sustainable development of this sector. Project has achieved significant progress with several steps completed. It is gaining momentum in the Dam safety component as well as in the other components.

Special mention should be made of the contribution by the Ministry and her organization towards the ‘Uthuru Wasanthaya’ and ‘Negenahira Naodaya’ objectives of the Government, where the support given for the infrastructure build up and commencement of cultivation will go a long way to normalize the livelihood in those areas. The work done include components under several ongoing projects and the programmes of the Ministry of Economic Development. Over 11,000 farmer families have benefited from these efforts in schemes such as ‘Giants Tank’, Pavatkulam and Akathimuruppu Tank in Mannar, Vavunia and Killinochchi Districts. The Organizations under the Ministry, Water Resources Board (WRB) and the Central Engineering Consultancy Bureau (CECB) participated in Water supply, buildings and roads programmes.

We have also paid special attention to the overall agricultural productivity enhancement drive, centered around irrigation areas by introducing appropriate coordinating and management techniques and economic development ventures and livestock activity. The officers of the Irrigation Management Division (IMD) of the Ministry and the Project Managers of the Mahaweli Authority of Sri Lanka (MASL) have been oriented in these directions, and to fall in line with District/National level programmes.

Water is one of our most important natural resources, as well articulated in the Mahinda Chinthana. Strategic importance of development of the resource with long term vision has been given due emphasis. Planned development by harnessing the unregulated yields in the river systems with conjunctive use of ground water to meet the water requirement of the respective regions of the country and that of all user sectors, have to be achieved with large scale multipurpose undertakings including flood protection and hydropower.

Having fully realized the importance of a continued and a comprehensive approach to this subject, water resource planning, we have taken new steps to strengthen our capacity with direct engagement and supervision by the Ministry, in order to achieve optimum results with coordinated effort among several partners, and to expedite processes involved from conceptual stages to full feasibility levels in these large ventures. Accordingly, steps have been taken to expedite the proposals in respect of Yan Oya Reservoir

Development, Lower Malwathu Oya Reservoir and Gin - Nilwala Diversion Complex (with Chinese Consultants assistance) and in Kalu Ganga flood protection - Ratnapura reservoir with the assistance from Israel Government. We have also focused our attention on flood protection and drainage issues in collaboration with other Ministries such as Disaster Management, and the DMC. Long term planning has been extended to reckon the impact from climatic change, where we have similar collaboration programmes.

We have also given new dimension to the NCP canal under the Mahaweli programme and the System L development, where appropriate steps have been taken to expedite the feasibility studies.

The program and work load in the coming years is projected to be worth Rs 21,000 million in 2011 and expected to be rising further in the ensuing years. I have full confidence that the Ministry staff and our organizations will shoulder these tasks with responsibility and dedication.

Details of work programme of the Ministry and those of the other organizations are available in the following pages.

**Eng. K. W. Ivan de Silva**

Secretary

Ministry of Irrigation & Water Resources Management

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

## **1. Vision**

Prosperous Sri Lanka through Water and Irrigation Heritage .....

## **2. Mission**

Providing wellbeing of community while fulfilling all water needs through Water Resources Management

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

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

## 4. Challenges

- 1 Improving the efficiencies of existing irrigation systems.
  - Increase water productivity
  - Increase cropping intensity
  - Efficient management
  - System modernization and adaptation of new technologies
  - Participatory management
  - Crop diversification
  - Upper catchment management
  - Increasing farmer income through income generating activities.
- 2 Contribution for domestic water needs and environment protection work of existing schemes
- 3 Supply of water for water deficit areas.
  - By improving the existing schemes
  - By new projects
- 4 Conservation of sources of surface and ground water resources.
- 5 Fulfill domestic, industrial and other water demands.
- 6 Presentation of a national plan to meet future water demands of coming generations
- 7 Strengthening human resources and institutional affairs.
- 8 Granting 100,000 land deeds.

## 5. Capital and Recurrent Budget Expenditure Summary of the Ministry

<b>Ministry Capital and Recurrent Summary - 2010</b>							
<b>Head</b>	<b>Capital Budget</b>		<b>Recurrent Budget</b>		<b>Total Allocation Rs Mn</b>	<b>Total Expenditure Rs Mn</b>	<b>% Ex.on Alloca tion</b>
	<b>Allocation Rs. Mn.</b>	<b>Expenditure Rs.Mn.</b>	<b>Allocation Rs. Mn.</b>	<b>Expenditure Rs.Mn.</b>			
<b>152</b>	7,415.10	4,956.33	1,987.23	1,908.20	9,402.33	6,864.53	73.01
<b>282</b>	4,723.20	3,584.18	1,206.60	1,126.49	5,929.80	4,710.67	79.44
<b>Total</b>	<b>12,138.30</b>	<b>8,540.51</b>	<b>3,193.83</b>	<b>3,034.69</b>	<b>15,332.13</b>	<b>11,575.20</b>	<b>75.5</b>

**6. Actual against the forecast in relation to expenditure under  
Ministry head 152 & ID head 282**

Form A Appropriation Account

Form B Revenue Account

Form C Advanced Accounts

Form D Fund Account

CATEGORY : APPROPRIATION ACCOUNT		152		Form - A								
		Financial Performance (Rs.In '000)				Physical Performance						
Description	Current Year		Previous Year Actual	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
	Budgeted	Actual		Budget	Previous Year Actual	Type/C lass	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 16,480 14,505 13,402												
Other Recurrnt 26,660 21,929 21,948												
<b>Project Title and No:</b>												
Administration & Establishment Services 02												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments 28,000 20,369 19,564												
Other Recurrnt 7,980 7,646 6,225												

<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	45,960	42,620	42,206										
Other Recurrent	6,905	6,140	5,767										
<b>Project Title and No:</b>													
Irrigation Institutions & Development Programmes 04													
Expenditure													
Recurrent Expenditure													
Personnel Emoluments	0	0	0										
Other Recurrent	1,855,250	1,795,000	62,000										
<b>Total</b>	<b>1,987,235</b>	<b>1,908,209</b>	<b>171,112</b>										
<b>Capital Expenditure</b>													
Operational Activities 01													
Minister office 01	14,301	14,168	4,189										
Administration & Establishment Services 02	8,200	7,922	12,150										
Development Activities 02													
Inter provincial irrigation Development Programmes 03	2,967,400	2,010,604	7,225,453										
Development programme of irrigation institutions 04	861,200	649,097											
Mahaweli Irrigation Development Programmes 05	3,564,000	2,274,537											
<b>Total Expenditure</b>	<b>9,402,336</b>	<b>6,864,537</b>	<b>7,412,904</b>										

CATEGORY : REVENUE ACCOUNTS										Form -B				
Head										152				
Description	Financial Performance (Rs.In '000)							Physical Performance						
	Aareas of Revenue As At 01.01.2009	Current Year		Previous Year Actual	Variation Over		Aareas of Revenue As At 31.12.2009	Output (Service /Goods)		Current Year's Output		Previous Years output	Variation Over	
		Budgeted	Actual		Budget	Previous Year Actual		Type/ Class	Measur e	Targeted	Actual		Targete d	Previou s Years Actual
Revenue Codes														
<b>20.02.01.01</b>	310	209	309	-101	(01)									
<b>20.02.02.99</b>	800	359	825	-441	25									
<b>20.03.99.00</b>	600	193	688	-407	88									
Total Revenue	<b>1710</b>	<b>761</b>	<b>1822</b>	<b>-949</b>	<b>112</b>									

CATEGORY : ADVANCE ACCOUNTS      152												
Form -C												
Description	Financial Performance (Rs.In '000)					Physical Performance						
	Current Year		Previous Year Actual	Variation Over		Output (Service/Goods)		Current Year's Output		Previous Years output	Variation Over	
	Prescribed	Actual		Prescribed	Previous Year Actual	Type/Class	Measure	Targeted	Actual		Targeted	Previous Years Actual
Type:												
<b>Account Title &amp; No:</b> Advances to Public Officers 152011												
Maximum Expenditure Limit	10000	8231	7723									
Minimum Receipt Limit	5400	5708	5113									
Maximum Debit Limit	34000	28844	24781									
Maximum Liability												
Financial Results												

CATEGORY : APPROPRIATION ACCOUNT			282			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												
Personnel Emoluments	249,500	226,383	235,429	23,117	-9,046		%	100	90.73	95.94	9.27	-5.20
Other Recurrent	47,150	43,728	41,887	3,422	1,841		%	100	92.74	87.81	7.26	4.93
<b>Total</b>	<b>296,650</b>	<b>270,111</b>	<b>277,316</b>	<b>26,539</b>	<b>-7,205</b>							
Capital Expenditure												
2001	25,301	25,301	15,339	0	9,962	(a)	%	100	100.00	90.23	0.00	9.77
2002	300	168	87	132	81	(b)	%	100	56.00	44.16	44.00	11.84
2003	1,699	1,492	1,291	207	201	(c)	%	100	87.82	100.00	12.18	-12.18
2102	5,000	1,967	4,984	3,033	-3,017	(d)	%	100	39.34	99.68	60.66	-60.34
2104						(e)						
2401	1,000	999	822	1	177	(f)	%	100	99.90	96.71	0.10	3.19
<b>Total</b>	<b>33,300</b>	<b>29,927</b>	<b>22,523</b>	<b>3,373</b>	<b>7,404</b>							

(a)Rehabilitation &amp; Improvements of Building &amp; structures

(d)Acquisition of Furniture &amp; office equipment

(b) Rehabilitation &amp; Improvements of Plant Machinery &amp; Equipment

(e) Acquisition of Building &amp; structures

(c) Rehabilitation &amp; Improvements of Vehicles

(f) Training &amp; capacity Building

CATEGORY : APPROPRIATION ACCOUNT 282						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- Developmental Activities</b>												
<b>Project 02 - Administration &amp; Maintenance of Irrigation Schemes</b>												
Expenditure												
Recurrent Expenditure												
Personnel Emoluments	837,690	788,951	781,537	48,739	7,414			100	94.18	99.66	5.82	-5.48
Other Recurrent	72,250	67,431	64,605	4,819	2,826			100	93.33	89.23	6.67	4.10
<b>Total</b>	<b>909,940</b>	<b>856,382</b>	<b>846,142</b>	<b>53,558</b>	<b>10,240</b>							
Capital Expenditure												
2001	996,650	872,687	549,105	123,963	323,582	(a)	%	100	87.56	94.51	12.44	-6.95
2002	30,000	14,931	13,390	15,069	1,541	(b)	%	100	49.77	87.52	50.23	-37.75
2003	45,000	37,689	19,453	7,311	18,236	(c)	%	100	83.75	91.54	16.25	-7.79
2101	28,000	27,608	0	392	27,608	(d)	%	100	98.60	0	1.40	98.60
2102	15,000	4,556	11,302	10,444	-6,746	(e)	%	100	30.37	94.18	69.63	-63.81
2103	200,000	197,496	59,899	2,504	137,597	(f)	%	100	98.75	89.94	1.25	8.81
2104	10,000	7,974	13,717	2,026	-5,743	(g)	%	100	79.74	81.65	20.26	-1.91
2502	101,350	63,668	33,995	37,682	29,673	(h)	%	100	62.82	69.95	37.18	-7.13
<b>Total Expenditure</b>	<b>1,426,000</b>	<b>1,226,609</b>	<b>700,861</b>	<b>199,391</b>	<b>525,748</b>							

(a) Rehabilitation &amp; Improvements of Building &amp; Structures

(e) Acquisition of Furniture &amp; office equipment

(b) Rep. to plant machinery &amp; equipment

(f) Acquisition of plant machinery &amp; equipment

(c) Rep.to vehicles

(g) Acquisition of Building & structure

(d) Administration & Maintenance of Irrigation Schemes

(h) Other capital expenditure

CATEGORY : APPROPRIATION ACCOUNT		282					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- Development Activities</b> <b>Project 04 - Medium Irrigation schemes</b>  Expenditure Recurrent Expenditure Personnel Emoluments Other Recurrent <b>Total</b>	-	-	-	-	-								
Capital Expenditure 2105	342,600	156,756	194,437	185,844	-37,681	(a)	%	100	45.75	92.15	54.25	-46.40	
<b>Total Expenditure</b>	342,600	156,756	194,437	185,844	-37,681								

(a) Medium Irrigation Scheme

CATEGORY : APPROPRIATION ACCOUNT 282					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- Development Activities</b> <b>Project 03 - Major Irrigation schemes</b> Expenditure Recurrent Expenditure Personnel Emoluments Other Recurrent <b>Total</b>												
Capital Expenditure 2105	2,921,300	2,170,866	1,297,261	750,434	873,605	(a)	%	100	74.31	95.24	25.69	-20.93
<b>Total Expenditure</b>	<b>2,921,300</b>	<b>2,170,866</b>	<b>1,297,261</b>	<b>750,434</b>	<b>873,605</b>							

CATEGORY : REVENUE ACCOUNTS														Form B
Head : 282														
Description	Financial performance Rs.,000							Physical Performance						
	Arrears of Revenue As at 01.01.2010	Current Year		Previous Years Actual	Variation Over		Arrears of Revenue As at 31.12 .2010	Out Put ( Service/ Goods)		Current Year Output		Previous Year Actual	Variation Over	
Budgeted		Actual	Budget		Previous Years Actual	Type/Class		Measure	Targeted	Actual	Targeted		Previous Year Actual	
<b>Revenue Codes</b>														
20.02.01.01 Rent on Government Buildings	-	7,600	8,154	6,928	554	1,226	-							
20.02.02.99 Interest - Other	-	15,000	14,329	15,004	(671)	(675)	-							
20.03.99.00 Other Receipts	-	30,000	36,155	19,223	6,155	16,932	-							
<b>Total Revenue</b>		<b>52,600</b>	<b>58,638</b>	<b>41,155</b>	<b>6,038</b>	<b>17,483</b>	-							

CATEGORY : ADVANCE ACCOUNTS

282

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 Out put Actual	Variations over	
	Prescrible	Actual		Prescrible	Previous Year Actual	Type/ Class	Measure	Targeted	Actual		Targeted	Previous Year's Actual
Type												
Account Tile & No. 282011												
Maximum expenditure Limit	165,000	133,874	162,869	31,126	-28,995		%	100	81	98.96	19	-18
Minimum Receipt Limit	106,500	112,299	103,547	-5,799	8,752		%	100	105.45	119.02	-5.45	-13.57
Maximum Debit Limit	450,000	400,665	372,606	49,335	28,059		%	100	89.04	83.96	10.96	5.08
Maximum Liability												
Financial results												

## 7. Performance of Projects and Programmes Directly under the Ministry

- a. Projects and Programmes by Irrigation Management Division (IMD)
- b. Programmes and achievements by Pro Poor Economic Advancement & Community Enhancement (PEACE) Project
- c. Uma Oya Multipurpose Development Project (UOMDP)

### a. Programmes and Achievements by Irrigation Management Division (IMD)

#### 1. Institutional Development

The following information indicates the subjects and efforts that are undertaken by the IMD to inculcate the values of Accountability, Responsibility and Good Governance (ARGG) for the Farmer Organizations (FOs ) during 2010.

No	Activities	Target	Progress	%	Observation
1	Updating of accounts No. FOs	785	652	83	Complacency and apathy of members
2	Preparation of final accounts - No. FOs	770	521	68	Shortage of officers in RPM offices
3	Internal auditing - No. FOs	748	556	74	Reluctance of community members
4	External Auditing No. FOs	633	158	25	Inadequacy of qualified auditors in rural areas; exorbitant charges for auditing.
5	Conducting elections No. FOs	397	237	60	Lack of Interest in FO Leaders; Postponement due to National Elections which affects the community attitudes and alienation.
6	Conducting Annual General Meetings	1615	1237	77	Postponement due to National Elections which affects the

	No. FOs				community attitudes and alienation.
7	Monthly committee meetings - No. FOs	5922	4149	70	Lack of staff in RPM offices reduces the opportunities for interactions with FO members to persuade.
8	Development of FO funds - No. of FOs - Rs ' 000	765 40,387	618 25,869	81 64	
9	Conducting Pre-Kanna meetings - No.	88	88	100	
10	Conducting Kanna meeting - No.	106	106	100	
11	Conducting Project Mngmnt Committee meetings-No.	466	362	78	Postponed when falling within land preparation period; also not held due to shortage of IMD officers.

The achievements are moderate to excellent which can be attributed to several reasons as denoted. Most of the items are dependent on the attitudes and values of the human resource with which the IMD officers are working. Bringing about changes in attitudes and values is a slow process where sociological aspects play a key role. Such changes can be effectively brought about through increased interactions with change agents.

The under-achievement of most of the items are mainly due to the shortage of officers in IMD which resulted in difficulty to keep the desirable changes even if the community were exposed to such needs through awareness programs.



## 2. Operation and Maintenance

The following information indicates the efforts taken by IMD to establish and maintain the O&M process during 2010 which needs real appreciation since farmers have to undertake these works and bear the costs on behalf of the government while also engaging in cultivation practices which contribute to the nation.

Activities	Unit	Targets	Progress	%	Observations
1. Preparation of annual Maintenance Plan for FO level	No of FOs	676	243	36	Lack of staff in RPM offices
2. Preparation of annual Maintenance Plan for Project Level	No	49	14	29	Lack of staff in RPM offices
3. Conducting of <i>Shramadana</i> campaigns	No campaigns	1027	898	87	
	Man Days	91055	83360	92	
4. Development of O & M fund	No. FOs	710	444	63	
	Rs.(000)	19023	17084	90	
5. Demarcation and acquisition of reservations	No. DCs	236	162	69	Reluctance of relevant state officers to actively involve
	No. FCs	466	269	58	
6. Establishment of Model Channels	No. DCs	95	80	84	Lack of resources
	No. FCs	331	128	39	
7. Maintenance of DCs by Farmer Organizations	Length (km)	2941	2757	94	
	Value(Rs.000)	23,260	21,195	91	
8. Maintenance of FCs by Farmer Organizations	Length (km)	6605	3848	58	
	Value(Rs.000)	23,985	20,194	84	
9. Improvement of structures by Farmer Organization	No	134	122	91	
	Value(Rs.000)	6145	4426	72	
10. Maintenance of Agriculture roads by Farmer Organization	No	82	48	59	Insufficient FOs fund
	Length (km)	472	372.5	79	
	Value(Rs.000)	8501	7424	87	
11. Maintenance and improvement of Drainage canals	Length(k.m.)	53	27.5	52	Insufficient FO funds
	Value(Rs.000)	2835	1932	68	
12. Organizing Cultural Activities related to farming *	No	333	220	66	Lack of Interest in FOs

\* *Pirith sajjayana, deva puja, Aluth sahal mangalya, fathiya reciting,, kiri ithiraweeme mangalya, mangala diyawara nikuth kireema, mutti nemeeme mangalya etc.*



### 3. Economic Development

The primary objective of irrigation management and related activities is to improve the income of the beneficiaries from crop production and other related farm outputs such as livestock and aquaculture. While the basic commodity produced with irrigation is rice, there are various other crop commodities such as OFCs, banana, papaw, coconut, cashew, fodder grass etc. which are also cultivated with the irrigation supply or benefited with irrigated water in a major irrigation area. While the IMD implements programs to enhance the production and productivity of these commodities, the scope expands further to value addition for the primary product and market interventions through Forward Sales Contracts (FSCs). The following information shows the efforts taken by IMD to enable the beneficiaries to access such services.

#### a. Paddy production

The Table below illustrates the total extent and production of paddy during 2010 under irrigation in INMAS areas managed by IMD.

Season	Cultivated Extent-ha	Production Tons
2009/10 Maha	147,753	693,850
2010 Yala	138,345	609,622
Year 2010	286,098	1,303,472

## b. Cultivation of Other Field Crops (OFC)

- **Produce-to-market process**

This brought an enhanced income to the farmers of around Rs. Mn. 774.0 in 2010 estimated at farm-gate price.

Crop	2009/10 Maha			2010 Yala			Year 2010		
	Extent	prodn	Value	Extent	prodn	Value	Extent	prodn	Value
	Ha	mt.	Rs M	Ha	mt.	Rs M	Ha	mt.	Rs M
Chillies	76	91	6	218	262	18	294	353	25
B Onion	2	20	1	156	1,560	47	158	1,580	47
Red Onion	2	16	1	13	104	4	15	120	4
Maize	691	1,728	69				691	1,728	69
Ground Nut	39	78	3	257	514	18	296	592	21
Green gram	335	402	24	228	274	16	563	676	41
Cowpea	166	166	7	180	180	7	346	346	14
Black gram	8	10	0	62	74	3	70	84	3
Soya Bean	42	63	3				42	63	3
Vegetables	440	4,400	132	1,384	13,840	415	1,824	18,240	547
<b>Total</b>	<b>1,801</b>	<b>6,973</b>	<b>246</b>	<b>2,498</b>	<b>16,808</b>	<b>529</b>	<b>4,299</b>	<b>23,781</b>	<b>774</b>

- **OFC under the FSC program**

Farmers earned around Rs M 416.0 from Maize, Soya, and Green gram under FSC while contributing to the national food production drive and also in assisting to reduce the drain on foreign exchange.



Scheme	Maize		Soya		Green gram		Total Extent ha	Value RsM
	Extent ha	Prod T	Extent ha	Prod T	Extent ha	Prod T		
1. Huruluwewa			400	1000			400	85
2. Rajanganaya			139	350			139	30
3. Dewahuwa			402	1000			402	85
4. Badulu Oya/ Bathmedilla	526	2630					526	74
5. Nagadeepa	729	3645					729	102
6. Muruthawela					228	342	228	40
<b>Total</b>	<b>1255</b>	<b>6275</b>	<b>941</b>	<b>2350</b>	<b>228</b>	<b>342</b>	<b>2424</b>	<b>416</b>

- **Sandwich cropping**

Cultivation of a crop during the period between two main cultivation seasons capturing the residual soil in the field and also with a few irrigation issues is called sandwich cropping. This cropping practice was being adopted during the periods after yala seasons of 2009 and 2008 consecutively. However during Yala 2010, this practice peaked to around 2,835 ha of green gram being cultivated as a sandwich crop in *Kirindi Oya* and *Ridiyagama* schemes which provided around 3,400 tons of green gram production to the local market.

Irrigation area	Extent - ha	Production - T	Value - Rs.M
Ridiyagama	405	486	39
Kirindi Oya	2430	2916	233
<b>Total</b>	<b>2835</b>	<b>3402</b>	<b>272</b>

- **Big Onion Seed production**

It assisted in cultivating 136 ha and producing around 1400 tons of big onion for the consumption market.

<b>Irrigation scheme</b>	<b>Seed onion produced - Kg</b>
Hurulu wewa	700
Dewahuwa	360
Neelabemma	35
<b>Total</b>	<b>1095</b>

**c. Cropping Intensity**

The interventions through INMAS approach assist in better planning for water resource use and adoption of suitable cropping patterns and cropping calendars. The INMAS interventions lead to judicious and conjunctive use of irrigation and ground water, rational use of irrigation water and emphasis on reducing losses through adoption of suitable irrigation rotational issues which is conducted through participatory farmer managed process. Also, such interventions results in adoption of short age rice varieties as a standard in the entire irrigable area and in consecutive seasons as well which facilitates early start of cultivations. The resultant outcome of all those interventions is the increase in Cropping Intensity both on annual as well as seasonal basis. The CI in irrigation schemes managed by IMD was 90 % and 89 % in 2009/10 M and 2010 Yala, respectively and 178% for 2010 which is exceptionally good considering the irregularity in the weather pattern that prevailed during the whole of 2010.

	<b>2009/10 Maha</b>	<b>2010 Yala</b>
Irrigable Extent	165,340	165,340
Total cultivated extent (ha)	149,554	147,315
Seasonal Cropping Intensity %	90	89
<b>Annual Cropping Intensity %</b>	<b>179</b>	

**d. Seed Paddy production**

INMAS schemes contributed in seed paddy production to fulfill the gap in national seed paddy requirement by implementing seed paddy production programs in major irrigation areas through FOs and farmer participation. 18,000 bushels of seed paddy were produced in 2010 and made available for cultivation.

**e. Participatory Yield Estimation Program**

The paddy yield estimation method adopted at present is implemented by Department of Census and Statistics based on their own methodology which yet use old measuring devices and units and based on volumetric measurements. The number of samples is not adequate to give a fair estimation of the yield especially unique to major irrigation area, but the estimation is given on district basis. As an alternative approach, Irrigation Management Division initiated a paddy yield estimation method which will incorporate a larger number of samples within a major irrigation area which will support a data set to estimate the paddy yield in a specific major irrigation scheme. And also this approach will obtain the yield directly by metric weight which does not need to be converted to, through conversion factors. The new approach is based on larger number of samples spread across each irrigation scheme in the head, middle and tail end which will give a fair and unbiased average over the entire scheme. It also assists to compare between irrigation schemes which will help to find the reasons for yield differences or reduction and also to apply remedial methods in-situ.

This was practically implemented in 2009/10 *Maha* & 2010 *Yala*. An important aspect of this approach is to promote the participation of Farmer Organizations and farmers in the yield estimation process with their own resources and willingness.

All the schemes had not participated in the yield estimation program yet owing to differences in understanding of the process. This will be implemented continuously as an Action Research in future until established as a sustainable process and as an alternative approach to yield estimation process of Department of Census and Statistics.

**f. Economic Development of Farming Community**

The net result of the IMD interventions for the improvement of the farming community is shown in the income generated at farm level resulting in overall economic development. The income generated mainly from rice and OFC production is the primary source for economic development while there are other sources of farm income such as livestock, horticulture, aquaculture etc. which are of irregular and supplementary nature. The cash circulated out of the income generated within the rural areas of irrigation schemes is tremendous and is reflected in the construction of new houses, and acquiring of industries, machinery, tractors, and vehicles and even on the extravagant appearance of the younger generation. The estimated incomes given in above paragraphs are

summarized below in order to have a glimpse of the annual income obtained from farming in major irrigation schemes where interventions are conducted by IMD.

<b>Income source</b>	<b>Total income – Rs. Mn.</b>
1.Paddy production	36,500
2.Produce-to-market process	774
3. OFC under FSC program	416
4. Sandwich cropping	272
5. Big onion seed production	13
<b>Total</b>	<b>37,975</b>

#### 4. Capacity Building

Capacity building is an essential component in human resource development. IMD is actively involved in capacity building of both farming community and officers working within.

##### a. Farmer Training

Farmer training and awareness programs were conducted in almost all the irrigation areas covered by IMD on variety of subjects as given below.

<b>Activity</b>	<b>Target</b>		<b>Progress</b>		<b>%</b>	
	No Programs	No participant	No Programs	No participant	No Programs	No participant
Financial management	139	4721	81	2462	58	52
Legal empowerment	57	2215	15	497	26	22
Leadership Development	49	1703	12	316	24	19
Strengthening farmer organization	35	1070	19	531	54	50
Responsibility of field Channel Representatives	8	300	2	96	25	32
Operation & maintenance	70	2159	7	223	10	10
Auditing Training	1	35	1	35	100	100

On farm Water Management	50	1715	6	174	12	10
Field visits (farmer exchange programs)	20	825	10	408	50	49
Dairy Farming	9	290	1	15	11	5
Maintenance of elephant electric fence	2	50	1	30	50	60
Organic manure production	2	70	1	43	50	61
Zone based Cultivation	-	-	1	40	-	-
Home garden development	-	-	1	58	-	-
Big onion cultivation	4	177	1	22	25	12
<b>Total</b>	<b>446</b>	<b>15330</b>	<b>159</b>	<b>4950</b>	<b>38</b>	<b>37</b>

Difficulty to find resource persons for the variety of subjects had hampered the skill development program. While the scarcity of professionals was a critical issue, their engagement in many other priority programs reduced their availability. In addition, the National Elections held during the year, kept the officers busy in priority duties, while organizing the farmers also was difficult during that period.

### **b. Officer Training**

The following information indicates the number of officers and subjects on which they were allowed to participate.

- Local Training**

<b>Name of Training Program</b>	<b>Duration</b>	<b>No. participated</b>
Training of Trainers on financial management	02 days	45
Conflict Management	5 Days	5
Induction training for RPM Office laborers'	2 Days	30
Ms Excel	4 Days	1
Computer hardware and maintenance	5 Days	4
Introduction to computer	5 Days	1
Payroll	5 Days	2
Tamil language for state officers (Level 111)	108 Hours	4
Training on Pension preparation	1 Day	38
<b>Total</b>		<b>130</b>

- **Foreign Training**

Name of Training Program	Duration	No of participated
Study tour For Thailand under PEACE project	7 Days	8
<b>Total</b>		<b>8</b>

- **Planning & Progress Review Work Shop**

Name of Work Shop	No. Programs	No. participated
RPM Progress Review work shop	01	55
2011Annual Work Plan Preparation	06	75
Preparation of 08M planning process	02	59
<b>Total</b>	<b>09</b>	<b>189</b>

### Budget and Financial Performance 2010

#### Capital Expenditure

Vote	Allocation (Rs. '000)	Cumulative Expenditure end 2010 (Rs. '000)	Percentage
152- 02 - 3 - 0			
<b>2001-Rehabilitation &amp; Improvements of Capital Assets - Buildings &amp; Structures</b> Buildings	6,000	3,957	66
<b>2002-Rehabilitation &amp; Improvements to Capital Assets</b> Plant, Machinery and Equipments	600	598	100
<b>2003-Rehabilitation &amp; Improvements to Capital Assets</b> Vehicles	6,000	5,068	84
<b>2102-Acquisition of Capital Assets</b> Furniture & Office Equipments	600	588	98
<b>2105-Acquisition of Capital Assets</b> Land & Land improvement	14,000	13,608	97
<b>2401-Capacity Building</b> Training & Capacity Building	200	90	45
<b>2401-Increasing the capacity of Integrated Management in Irrigated Agriculture in dry Zone (JICA) Capacity Building</b> Training & Capacity Building	500	403	81
<b>Total</b>	<b>27,900</b>	<b>24,312</b>	<b>87</b>

**b. Programmes and achievements by Pro Poor Economic Advancement & Community Enhancement (PEACE) Project**

Following are the irrigation schemes developed under "PEACE" Project.

District	Major Schemes	Medium Schemes	Minor Schemes
Kurunegala	Magalla	Mahananneriya	Mee Oya Cascade I – 11 Schemes
	Palukadawala	Mahalgamuwa	Mee Oya Cascade II – 10 Schemes
	Atharagalla	Meddaketiya	Deduru Oya Cascade I – 10 Schemes
	Abakolawewa	Moragoda	Deduru Oya Cascade II – 04 Schemes
		Hulugalla	
Anuradhapura	Nuwarawewa	Mahabulankulama	Malwathu Oya Cascade I – 08 Schemes
	Nachchaduwa	Maaminiyawa	Malwathu Oya Cascade II – 08 Schemes
	Tissawewa	Periyakulama	Malwathu Oya Cascade III – 10 Schemes
	Rajangana	Uttimaduwa	Kala Oya Cascade I – 09 Schemes
		Abhayawewa	
Matale			Kala Oya Cascade II – 10 Schemes

**Budget & Financial Performance**

The total Base Cost of the project including consulting is 3,870.0 JPY Million and the cumulative expenditure up to end of December 2009 was 1,652.45 JPY Million, which is equivalent to Rs. 1,858.43 Million. Out of the available balance of 2,217.55 JPY Million equivalent to Rs. 2,838.44 Million, implementation works worth of Rs. 1,611.73 Million (1,259.16 JPY Million) is completed during the year 2010 having 95% of the overall progress against allocation and arriving at a cumulative expenditure of Rs. 3,470.16 Million (2,911.62 JPY Million) at the end of 2010.

Other Investments : 152 – 2 – 3 – 1

(a) Base Cost

Object	Description of Item	Allocation	Expenditure up to end of December 2010	% Expenditure Against Allocation
2502	Rehabilitation of Improvement to Capital Assets	1,230.0	1,209.1	98
2502	Acquisition of Capital Assets	18.0	15.4	86
2502	Capacity Building – Awareness & Training	38.0	34.2	90
2502	Agriculture Development & Income Generation	100.0	82.0	82
2502	Staff Training	8.0	3.7	46
2502	Monitoring & Evaluation	6.0	4.3	71
2502	Micro Credit	60.0	60.0	100
2502	Consultancy	240.0	203.0	84
<b>Sub Total</b>		<b>1,700.0</b>	<b>1,611.7</b>	<b>95</b>

(b) Operation & Taxes

Object	Description of Item	Allocation	Expenditure up to end of December 2010	% Expenditure Against Allocation
2502	Operation Cost & Taxes (CF)	300.0	144.7	48

### Rehabilitation of Improvement to Capital Assets

Rehabilitation & upgrading component of the “PEACE” Project consists of improvements to existing Main Systems & Sub Systems of Major & Medium Irrigation Schemes and Minor Irrigation Schemes in the Project area. The Main System comprises of head works, Main Canals and Feeder Canals under Irrigation System and distributory canals and field canals are included to Sub System.

#### Main system/Anuradhapura

No	Scheme	Allocation 2010	Actual Financial Prgs during 2010	Physical Progress%	Financial Progress %
1	Nachchaduwa	155.00	152	100%	98%
2	Rajangana	130.00	128.5	100%	99%
3	Nuwarawewa	44.40	41.2	100%	93%
4	Thissawewa	17.50	17.1	100%	98%
5	Abhayawewa	9.10	9.1	100%	100%
6	Mahabulankulama	0.00	0	100%	97%
7	Maminiyawa	3.00	2.77	100%	92%
8	Periyakulama	6.00	5.3	100%	88%
9	Uttimaduwa	3.00	2.06	100%	69%
<b>Sub Total</b>		368.00	358.03		97%

**Main System****Kurunegala**

	Palukadawala	21.00	20.2	100%	96%
<b>2</b>	Aththaragalle	10.00	9.39	100%	94%
<b>3</b>	Abakolawewa	18.00	18	100%	100%
<b>4</b>	Magalle	42.00	41.5	100%	99%
<b>5</b>	Mahananneriya	4.00	3.76	100%	94%
<b>6</b>	Mahagalgamuwa	1.00	0.82	85%	82%
<b>7</b>	Meddeketiya	2.00	1.6	100%	80%
<b>8</b>	Moragoda	2.00	1.9	100%	95%
<b>9</b>	Hulugalle	2.00	1.18	100%	59%
	Sub Total	102.00	98.35		96%
	Grand Total	470.00	456.38		97%

**Capacity Building – Awareness & Training**

The target and progress of the programmes conducted under Social Mobilization Component are as follows:

Serial No.	Training Programme	Target		Progress		Percentage %	
		No Programmes	No Participants	No Programmes	No Participants	No Programmes	No Participants
01.	Social Mobilizers Training	06	184	06	153	100	82
02.	Construction Management	04	88	04	63	100	71.5

	Training						
03.	Financial Management Training	02	36	02	25	100	69
04.	Computer Training	05	100	05	97	100	97
05.	Leadership & Action Training	05	145	05	127	100	87.5
06.	Participatory Rural Appraisal (PRA)	02	45	02	34	100	75
07.	Water Management Training	03	75	03	63	100	84

## (a) Socio Economic Survey - 2010

Serial No.	Name	Target	Progress
01.	Mid Term Review Survey	01	01

## (b) Farmer Training Programme – 2010

Serial No.	Training Programme	Target		Progress		Percentage %	
		No Programme	No Participants	No Programme	No Participants	No Programmes	No Participants
01.	Water Management Training	185	4320	132	2270	71	52

02.	Conduct Awareness Programme on O & M Process.	185	5920	32	896	17.2	15
03.	Financial Management Training	60	1880	54	1124	90	59

### Agriculture Development & Income Generation

- **Stable Crop Production**

The major crops which were planned to develop by the project were Paddy, Other Field Crops (Chilli, B onion, Maize, Pulses etc.), Vegetables and Fruits mainly banana, orange guava, papaya and pomegranate

#### a) Paddy cultivation

The table below illustrated the progress of programmes of the Agriculture Component -2010.

Description of programmes	Unit	2010 Target	Progress	%
Seed paddy Production	Acres	1290	1195	92.6%
Maximum yaya demonstration	Acres	2755	2112	77%
Parachute method	Acres	1034	661	64%
Dis. of processing machines	Nos.	10	8	80%
No of Trainings	Nos.	170	157	92%

**b) Other Field Crops cultivation**

2010 achievement is given below.

Description of programmes	Unit	Target	Progress	%
B.onion cultivation	Acres	175	150	85%
B.onion seed production	No of farmers	290	250	86%
B.onion storage structures	Nos.	06	06	100%
OFC other than B.onion	Acres	2000	1267	63%
No of Trainings	Prog	42	37	88%

**c) Fruit Cultivation**

Orange crop was identified as a suitable economic crop for Galgamuwa area. Nearly 115 acres of new cultivation was established during the year in this area. Together with this extent project has contributed to cultivate nearly 300 acres of orange in Kurunegala District. Although 250 acres of papaw was cultivated in the year 2010, large extents have been damaged due to the heavy rains & flood prevailed in the last quarter of the year.

The progress of 2010 is given below.

Description of programmes	Unit	Target	Progress	%
Mango cultivation	Acres	1000	912	91%
Orange Cultivation	Acres	300	312	104%
Papaw cultivation	Acres	300	250	87%
Other type fruits	Acres	200	120	87%
No of Trainings	Nos.	70	44	62%

- **Income generation Programmes**

Development activities such as livestock development, inland fisheries development, small scale enterprise development, vocational training and home garden development were carried out under the income generation programmes in the project area.

**(a) Livestock Development**

Demonstration programmes conducted in the year of 2010 is given below.

Description of programmes	Unit	Target	Progress	%
Distribution of cows	Nos.	457	351	76%
Establishment. of cow sheds	Nos.	489	194	40%
Bio gas units	Nos.	35	9	25%
Supply of milk cans	Nos.	120	45	37%
Poultry farms	Nos.	200	54	20%
Pasture production	50'x3'	100	20	27%
No of Trainings	Nos.	70	41	58%

**b) Coconut cultivation**

“PEACE” Project with the cooperation of Coconut Cultivation Board has been able to cultivate 1060 acres of coconut in Kurunegala, Matale and Anuradapura districts during the project period.

Demonstration programmes conducted in the year of 2010 is given below

Description of programmes	Unit	Target	Progress	%
New cultivation	Acres	660	530	75%
Inter cropping	Acres	200	200	100%
Distribution of seedlings	Plants	10000	10100	101%
No of Trainings	Nos.	31	20	64%

### c) Cashew cultivation

“PEACE” Project with Cashew Cooperation has been able to cultivate 539 acres of cashew in Kurunegala, Matale and Anuradapura districts during the project period. Demonstration programmes conducted in the year of 2010 is given below

Description of programmes	Unit	Target	Progress	%
New cultivation	Ac.	300	172	90%
Processing groups	Nos.	2	1	50%
No of Trainings	Nos.	31	30	75%

### d) Aquaculture programmes

This has been a very profitable income generation programme for fisheries groups (formed by the PEACE project) since 2007. PEACE project with the National Aquaculture Development Authority it has been able to stock nearly 1.2 Mil fingerlings for 35 tanks and able to harvest 70,000 kg fish value of Rs. 9.7 million.

The progress of 2010 is given below.

Description of programmes	Unit	2010 Target	Progress	%
No of tanks	Tanks	14	8	57%
Distribution of boats	Nos.	49	43	87%
Distribution of nets	Nos.	146	289	199%
Etd of marketing stalls	Nos.	07	04	57%
Ornamental fish Farms	Nos.	6	2	33%
No of Trainings	Nos.	10	7	70%

### e) Vocational training (Non-agricultural based programmes)

Industrial Development Board (IDB) played a major role in vocational training. Dressmaking, mobile phone repair, handy craft training, Coir Product Making, Snacks Making, Pan Bag Making, Rexcine Bag Making, Fabric Bag Making, Coconut oil Production, Clay Products Making, Cement Product Making, Exercise Book Making, etc conducted by the IDB has a very effective impact in promoting income generation activities.

2010 achievement is given below.

Description of programmes	Unit	Target	Progress	%
No of programmes	Nos.	23	17	73%
Market promotion programmes	Nos.	6	5	83%
No of Trainings	Nos	31	28	80%

- **Rural Credit programme**

At the end of 2010 Rs. 82 Million was disbursed among 715 beneficiaries for improving their income generation activities. The recovery rate was 99% and the two banks (Regional Bank NCP & NWP) continue the programme with the recovery money as a revolving fund.

### c. Uma Oya Multipurpose Development Project (UOMDP)

<b>Project Title</b>	:	Uma Oya Multipurpose Development Project
<b>Employer (Client)</b>	:	Ministry of Irrigation and Water Resources Management
<b>Main Contractor for Head Works</b>	:	Farab Company of Iran
<b>Contract Sum</b>	:	USD 529,059,198
<b>Date of Contract Effectiveness</b>	:	15 <sup>th</sup> March 2010
<b>Funded by through</b>	:	Government of Islamic Republic of Iran (GIRI) Export Development Bank of Iran (EDBI) USD 450,000,000 Government of Sri Lanka (GOSL) USD 79,059,198
<b>Financing Agreement</b>	:	LKA No. 870/L/LKA/01 Signed on 28 <sup>th</sup> April 2008
<b>Objectives</b>	:	Trans basin diversion of approximately 145 Million Cubic Meters (MCM) of water annually from Uma Oya basin to Kirindi Oya basin to irrigate 5000ha of new land and to provide drinking and industrial water requirement (30MCM) of the South East Dry Zone (SEDZ) and to harness hydro power potential to generate 231 GWH annually with an installed capacity of 120MW.
<b>Estimated Total Project Cost Including Downstream (Kiridi Oya Basin) Development (GOSL)</b>	:	(1). Head Works USD 450,000,000 from EDBI plus USD 79,059,198 (GOSL) & Rs. 6,121,750  (2). Downstream Development Works Rs. 9,352,500,000 (GOSL) for Downstream Development



Access Road Rehabilitation



Shaft Drilling

### **Main Components of the Project**

1. Construction of a dam/ reservoir at Puhulpola.
2. Construction of a dam/reservoir at Dyraaba.
3. Construction of a tunnel connecting the above two reservoirs.
4. Construction of Headrace Tunnel from the reservoir at Dyraaba up to the vertical shaft.
5. Construction of an underground power station.
6. Tailrace Tunnel from the power station up to Alicota Ara.
7. Construction of New Tank/ Reservoirs, Canals and associated structures in Kirindi Oya Basin.
8. Augmentation of capacities of existing Tank/ Reservoirs, Canal System and associated structures in the Kirindi Oya Basin to cater for the demand.

### **Progress**

#### Head Works

- The Contract commenced on 15<sup>th</sup> March 2010.
- Core drilling for investigation is in progress and 76% of the drilling work completed up to end December 2010. Investigation work is scheduled to be completed by the end of March 2011.
- Final Report of the EIA Study was submitted to the Central Environmental Authority (CEA) for the approval.
- Hydrological studies, Seismic Dazedness and Surface Geology reports were submitted by the Contractor.

- 90% of Topographical Survey is completed.
- Possession of land for the camp site at Madugasthalawa, were given to the Contractor on 06<sup>th</sup> August 2010. Leveling of land for the camp site and Construction of access road to the camp site are in progress.
- Survey work to mark full supply level (FSL) and reservation boundary of the Puhulpola reservoir was completed.
- Socio Economic survey of the people who will be affected at the Puhulpola Reservoir and Dyraaba Reservoir completed.
- Acquisition process of land for the two reservoirs, access roads, road deviation, Main Access Tunnel portal area and also for resettlement for the affected people, is in progress.
- Design work for access road to TBM portal is in progress.
- Location of the Tailrace Tunnel outfall is finalized after deciding on the Alikota Ara reservoir full supply level.
- Preparation of the feasibility Report is in progress by the Contractor which is to be submitted by end of February 2011.

#### Downstream development Works

Topographic survey of the Downstream Development Project area for the designing of the storage reservoir and distribution system completed.

Allocation for the year 2010	-	Rs. 920 Mn
Expenditure as at the end of the 4 <sup>th</sup> Quarter	-	Rs. 338.4 Mn
Overall Physical Progress	-	2.52 %

## **8. Performance of Projects and Programmes implemented by Departments, Statutory Boards and Public Enterprises under the Ministry**

- a. Irrigation Department (ID)
- b. Mahaweli Authority of Sri Lanka (MASL)
- c. Water Resources Board (WRB)
- d. Central Engineering and Consultancy Bureau (CECB)

### **a. performance of Projects and Programmes implemented by Irrigation Department (ID)**

#### **01. Deduru Oya Reservoir Project**

Deduru Oya and Mi oya are two adjacent river basins located in North Western province; More than 80% of the water resources of Mi oya basin is developed while much of water resources in Deduru oya are yet to be developed. Deduru oya basin lands are almost fully developed while Mi oya basin lands are yet to be developed especially in the lower catchment. Therefore it is planned to exploit the Deduru oya water resources in improving the productivity of existing agricultural lands under minor irrigation schemes and to develop new lands in Mi oya and Deduru Oya basins. Deduru Oya is the fourth largest river in Sri Lanka.

The project envisages construction of a Reservoir across Deduru Oya, 300 m upstream of existing Redi Bendi Ella. Dam type is homogeneous earth fill dam.

Gross storage	-	75 MCM
Dam Type	-	Homogeneous Earth Fill
Length of Dam	-	1900 m
Spill way	-	Radial gated
Sluice	-	Concrete Tower
Length of LB main canal	-	45 km
RB Trans basin canal	-	32 km
Other Canals	-	200 km

The proposed project period	-	2005 to 2013
Estimated cost	-	6200 Rs. Mn.
Extent benefited	-	11000 ha.
Benefited farmer families	-	11000

Cum. Expenditure up to 31 Dec 2009 - 1398.89 Mn.

Allocation for year 2010 - 1261.30 Mn.

Expenditure to end of Dec. 2010 - 1200.37 Mn.

Cum. Expenditure up to 31 Dec 2010 - 2599.25 Mn.

Overall Physical Progress - 40 %

## Progress of the Deduru Oya Reservoir Project



R.B. LINING CANAL



BUND & RIP-RAP



RIP-RAP CONSTRUCTION



SPILLWAY CONSTRUCTION

## 02. Weheragala Reservoir Project

Manik Ganga is one of the major rivers of southern quadrant of the Island. This basin is the one of the least developed river basins in Sri Lanka and more than 50 % land is undeveloped. In Manik Ganga basin there is no major storage reservoirs across Manik Ganga and only few anicuts are available.

In the adjoining Kirindi Oya basin, it has a catchment area of an 1178 sq km and most of the water in this river regulated at Lunugamwehera reservoir, which has a capacity of 222 MCM from the total annual average flow of 240 MCM in Kirindi Oya very little water escape to the sea. This reservoir suffers due to shortage of water and there is an annual deficit of about 100 MCM of water to cultivate 10000 Ha of agricultural lands. The project envisages to regulate about 80% of water available in Manik Ganga at Weheragala by constructing an environmental friendly reservoir with a water way conveying about 64 MCM of regulated water to water deficit Kirindi Oya basin while releasing about 30 MCM of regulated water down Manik Ganga.

Project is almost completed.

Dam Type	-	Homogeneous Earth Fill
Length of Dam	-	2031m
Spill way	-	Radial gated
Sluice	-	Concrete Tower
Length of main canal	-	22.35 km
The proposed project period	-	2005 to 2011
Estimated cost	-	2900. Mn.
Extent benefited	-	5000 ha.
Benefited farmer families	-	5000
Cum. Expenditure up to 31 Dec 2009	-	1841.34 .Mn
Allocation for year 2010	-	175.00 Mn
Expenditure to end of Dec. 2010	-	57.21 Mn
Cum. Expenditure up to 31 Dec 2010	-	1898.55 .Mn
Overall Physical progress	-	100 %



**SPILOWAY OF THE RESERVOIR**



**BUND OF THE RESEIVOIR**

### **03. Rambukkan oya Reservoir Project**

Proposed Rambukkan Oya Reservoir and Irrigable Area of the project are located in the Mundeni Aru river basin in Ampara District in the Eastern Province. The scheme is sited at Watawalakandiya across the Rambukkan Oya . The tank bund across the Rambukkan Oya is situated midway between Pollebedda and Kurunduwinna villages in Bintenne Pattu North in Ampara District.

The area is presently sparsely settled and lack of roads, schools, health services and other civic amenities. Presently less than one percent of the land area is utilized and the people practice slash and burn rain fed agriculture. About 2000 landless families have been proposed to be settled under the proposed scheme.

The construction of earthen dam, tower sluice, spillway and land clearing and land leveling are some of the social elements to be under taken under this project. Resettlement aspects of the project will include training of farmers in irrigated agriculture, development of communities, provision of health services and schools.

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Dam Type	-	Homogeneous Earth Fill
Length of Dam	-	1097 m
Spill way	-	Radial gated
Sluice	-	Concrete Tower
Length of main canal	-	7.6 km
Length of LB branch canal	-	4.6 km
Length of RB branch canal	-	22.8 km
Length of D & F canals	-	50 km
The proposed project period	-	2006 to 2012.
Estimated cost	-	2500 Mn.
Extent benefited	-	1400 ha.
Benefited farmer families	-	2000
Cum. expenditure up to 31 Dec 2009	-	676.59 Mn
Allocation for year 2010	-	850.00 Mn
Expenditure to end of Dec.2010	-	532.01 Mn
Cum. Expenditure up to 31 Dec 2010	-	1208.60 Mn
Overall Physical Progress	-	52 %

## Progress of the Rambukkan oya Reservoir Project



Construction of toe-filter at D/S of dam



Turfing on D/S of dam



Construction of piers for walkway to the sluice tower



Lining section at 1<sup>st</sup> Km of Main channel

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

This project is proposed to augment one medium tank namely Debara Ara Wewa in Wellawaya Divisional Secretary Division and about 22 minor tanks including Gal Wewa, Kolombawatta Wewa, Watagala Ara Wewa and Uruhore Wewa by extending the feeder canal from Ussalla anicut to Balaharuwa Tank and constructing new feeder canal from Balaharuwa Tank to Debara Ara Wewa.

Earth work on bund and LB canal of Gigiri Ella Stage 11 is completed this year. Earth work in LB canal of Danagiriya Sandella and Balaharuwa feeder canal is in progress. Earth work on Bund and main channel work of Hodalkumbura tank also completed. Concrete works in Wepathdeniya tank main channel and Head works of Radaliyadda Aswedduma tank were completed.

The proposed project period	-	2007 to 2010
Estimated cost	-	550.00 Mn
Allocation for year 2010	-	100 Mn.
Expenditure to end of Dec. 2010	-	30.32 Mn.
Cum. Expenditure up to 31 Dec 2010	-	70.41 Mn
Overall Physical Progress	-	20 %

## 06. Ellapothana Anicut Scheme

The proposed anicut is to be constructed across Yan Oya about 24 km down stream of existing Illukwewa anicut. It is proposed to augment the existing tanks on both LB and RB sides of the Yan Oya River. In the LB canal it is proposed to augment Wedigawewa, Elapatwewa, Wilewewa, Kudawewa and Thirappankadawalawewa. In the RB canal it is proposed to augment Ellapothana-Siyambalawewa and Wahagahapuwewa and to be constructed along the existing Yoda Ela which is now in completely abandoned state. The total area to be benefited by this proposed scheme is 625 Ha.

The proposed project period	-	2006 to 2010	
Estimated cost	-	300	Mn.
Extent benefited	-	625	Ha.
Benefited farmer families	-	1038	
Cum. Expenditure up to 31 Dec 2009	-	41.83	Mn
Allocation for year 2010	-	140	Mn.
Expenditure to end of Dec. 2010	-	79.9	Mn.
Cum. Expenditure up to 31 Dec 2010	-	121.73	Mn
Overall Physical Progress	-	47	%

### 07. Muthukeliyawa Anicut Extension

This anicut is located at upstream of Buttala Anicut in tributary of Manik Ganga. There is a feeder canal 5 km long to feed Kongaha Wewa presently cultivate 100 ha.

Under this project it is proposed to improve and feed a series of 7 minor tanks. A supply canal from Kongaswewa feed Serugan Aru Wewa on the way to existing Raja Ela.

Another supply canal from existing Karawilakanatta wewa, feeds few tanks and end up at Thammannaara wewa. The additional water can increase cropping intensity of the above tank up to 200% and additional area of 100 ha can be brought under irrigated agriculture.

Part of the canal flows through the forest and delay in completion is partly due to intransigent approach adopted by the Forest Department officers.

Most of the necessary structures along the feeder canal like drop structures, spill cum Causeway, bridges, turnout structures etc. are already constructed but some more structures are to be constructed. Canal excavation is almost complete but rock excavation is not completed.

The proposed project period	-	2004 to 2010
Estimated cost	-	77 Mn.
Extent benefited	-	200 Ha.
Benefited farmer families	-	220
Cum. expenditure up to 31 Dec 2009	-	64.74 Mn
Allocation for year 2010	-	12.00 Mn
Expenditure to end of Dec. 2010	-	1.70 Mn.
Cum. expenditure up to 31 Dec 2010	-	66.44 Mn
Overall Physical Progress	-	85 %

#### 08. Wemedilla Reservoir

It is proposed to construct a reservoir with a capacity of 4593.65 Ac.ft across Welamitiya. Works on bund (Slipped area) toe drain and toe filter works are in progress during the year. oya, which is a tributary of Dambulu oya. This proposed project will benefit 720 Acs. of New land and 1142 Acs of existing lands, including the lands along the supply canal.

The proposed project period	-	2004 - 2010
Estimated cost	-	335 Mn (Revised)
Extent Benefited	-	720 Ha.
Expenditure up to 31 Dec 2009	-	241.77 Mn
Allocation for year 2010	-	50.00 Mn
Expenditure to end of Dec. 2010	-	20.63 Mn
Cum. expenditure up to 31 Dec 2010	-	262.40 Mn
Overall Physical progress	-	100 %

## 09. Kekirioboda Reservoir Project

It is proposed to construct a reservoir of capacity 2.7 MCM at Kekirioboda in Walasmulla Divisional Secretariat Division in Hambantota District. The project will provide irrigation facilities for 1750 Acres of cultivable lands in Kirama Oya Scheme and enhance the existing water supply schemes for the Tangalle, Walasmulla and Kirama townships by providing 0.9 MCM water annually.

More than 50 % of construction of morning glory spill cum sluice has being completed. Construction of bund work is nearing completion. Land acquisition work is in progress. The overall project will be completed in the first quarter of the year 2009.

The proposed project period	-	2004 to 2010
Estimated cost	-	445 Mn.
Extent benefited	-	5535 Ha.
Cum Expenditure up to 31 Dec 2009	-	354.28 Mn
Allocation for year 2010	-	90.00 Mn
Expenditure to end of Dec. 2010	-	83.65 Mn.
Cum. expenditure up to 31 Dec 2010	-	437.93 Mn
Overall physical Progress	-	98.5 %



## 10. Gurugal Oya Irrigation Project

In the Gurugal oya reservoir it is proposed to augment the main canal of Murapola Ela scheme. Murapola Ela is the second biggest major irrigation scheme in Kandy district situated on the cold climates of Hewahata electorate in Kandy District.

The proposed project period	-	2008 to 2010	
Estimated cost	-	400	Mn.
Extent benefited	-	810	ha.
Benefited farmer families	-	2400	
Cum. expenditure up to end of December 2009	-	19.67	Mn
Allocation for year 2010	-	86.88	Mn.
Expenditure to end of Dec. 2010	-	23.00	Mn
Cum. expenditure up to end of December 2010	-	42.67	Mn
Overall physical Progress	-	32	%

## PERFORMANCE OF THE MAJOR &amp; MEDIUM SCHEMES - 2010

	Project Name	Type of Scheme	Project Period	Cum. Financial Progress (Rs. Mn.)		Financial Progress During 2010 (Rs. Mn.)			Overall physical progress to end of Dec. 2010 %	Extent benefited (Ha)	No of Farm Families	Remarks
				TEC	Cum.Exp. To end Of December 2010	Allocation 2010	Total Exp. To end of December	% Utilized				
1	Deduru Oya Reservoir	Reservoir	2005-2012	6200	2599.25	1261.30	1200.37	95.17	40	11,000	6,500	work in progress
2	Menik Ganga Reservoir	Reservoir	2005-2011	2900	1898.55	175.00	57.21	32.69	100	10,000	8,000	Environmental componal work in progress ( Additional work)
3	Rambukkan Oya Reservoir	Reservoir	2006-2012	2500	1208.60	850.00	532.01	62.59	52	1,422	1,000	work in progress
4	Yan Oya Project	Reservoir	2007-2012	8700	3.13	10.00	0.00	0.00	0	4,925	6,000	Investigation in progress
5	Lower Uva Project	Minor/Medium Irrigation Schemes	2007-2012	550	70.41	100.00	30.32	30.32	20	1,670	1,500	work in progress
6	Lunugamwehera Scheme	Reservoir	2007-2011	90	11.92	40.00	5.05	12.62	13	40	100	work in progress
7	Ellapothana Anicut	Reservoir	2006-2012	300	121.73	140.00	79.90	57.07	47	625	1,038	work in progress
8	Galoya Nawodaya	Irrigation System	2008-2012	1260	211.91	165.00	163.97	99.38	16	42,000	51,000	work in progress
9	Essential Rehabilitation in selected Major Irrigation Schemes	Major Irrigation Schemes	2009-2013	1000	113.34	180.00	102.04	56.69	5.0	8,000	10,000	work in progress
10	Mahahalmilla Wewa	Reservoir	2004-2011	61	56.93	2.00	1.42	70.80	96	250	500	work in progress
11	Muthukeliyawa Anicut	Anicut	2004-2011	77	66.44	12.00	1.70	14.17	85	321	400	work in progress
12	Wemedilla Reservoir	Reservoir	2004-2011	325	262.40	50.00	20.63	41.26	100	720	600	work in progress
13	KekiriOboda Reservoir	Reservoir	2004-2011	445	437.93	90.00	83.65	92.95	98.5	1,512	1,500	work in progress
14	Hekitha Minor Flood Protection	Anicut	2005-2011	53	27.10	34.00	10.61	31.21	28.0	500	500	work in progress
15	Gurugaloya Project	Reservoir	2007-2012	400	42.67	86.88	23.00	26.47	32	810	2,400	work in progress
16	Wawelanda	Reservoir	2005-2010	55.25	54.72	4.70	4.33	92.13	98	101	280	work in progress
17	Minipe Main canal	Anicut Scheme	2006-2011	12.8	8.54	3.20	1.41	43.94	55	6,100	10,000	work in progress
18	Ural Oya	Anicut	2005-2011	34	25.23	13.00	4.34	33.38	70	350	100	work in progress
19	Hettige Ela	Anicut	2005-2011	42	21.89	21.00	1.88	8.96	86	800	500	work in progress
20	Medagama Gonagama	Reservoir	2005-2011	22.5	15.25	2.00	0.02	1.05	100	57	200	work in progress
21	Centenary Irrigation Accelerated Development Programme ( CIADP )	Minor Irrigation Schemes	2000-2010	500	499.39	3.21	2.61	81.31	99	5263		Balance work in progress
22	Sugaladevi Wewa	Reservoir	2000-2010	119	116.34	3.12	0.47	15.06	99	324	500	Balance work in progress
23	Welioya Diversion Project	Anicut	2000-2010	853	852.53	0.7	0.69	98.57	100	1519	2500	work completed

## Operation and Maintenance of Irrigation Schemes

The Department Maintains 297 numbers Gravity **Schemes** commanding 283,618 ha. Allocation for the year 2010 is Rs. 57.635 Mn. Expenditure up to end of December 2010 is Rs. 50.42 Mn.

Under **Lift Irrigation** an extent of 2,040 ha maintained. Allocation for the year 2010 is Rs. 6.0 Mn Expenditure up to end of December 2010 is Rs. 2.84 Mn.

Under **Drainage and flood protection**, 29,841 ha. are maintained. Allocation for the year 2010 is Rs. 147.5 Mn Expenditure up to end of December 2010 is Rs. 129.7 Mn.

Under **Maintenance of Irrigation Departmental Roads**, Allocation for the year 2010 is Rs. 50 Mn. Expenditure up to end of December 2010 is Rs. 40.63 Mn.

Under **Improvements to Strengthening of Head Works**, Allocation for the year 2010 is Rs. 50 Mn Expenditure up to end of December 2010 is Rs. 41.86 Mn.

Under **Flood Damage Repairs**, Allocation for the year 2010 is Rs.55.0 Mn. Expenditure up to end of December 2010 is Rs. 40.91 Mn.

Under **Maintenance of Mahanuwara wewa**, Allocation for the year 2010 is Rs.10 Mn. Expenditure up to end of December 2010 is Rs. 6.20 Mn.

Under **Electrical/ Electromechanical Installations**, Allocation for the year 2010 is Rs.5.00 Mn. Expenditure up to end of December 2010 is Rs. 4.2 Mn.

Under **Farmer Organization Development & Farmer Productivity & Profitability**, Allocation for the year 2010 is Rs.2.00 Mn. Expenditure up to end of December 2010 is Rs.1.81 Mn.

Under **Irrigation System Technology**, Allocation for the year 2010 is Rs.2.50 Mn. Expenditure up to end of December 2010 is Rs. 2.5 Mn.

Under **Recovery of Possession and Safeguarding of Department Lands and Reservations**, Allocation for the year 2010 is Rs.5.0 Mn. Expenditure up to end of December 2010 is Rs 4.28 Mn.

Under **Management Supporting Facilities for O&M**, Allocation for the year 2010 is Rs.14.365 Mn. Expenditure up to end of December 2010 is Rs. 9.96 Mn.

## SUMMARY OF THE PERFORMANCE OF IRRIGATION DEPARTMENT (ID)

### Irrigated Agriculture

S.N	Description	Amount	Unit
1	Total irrigable existing area under Irrigation Department	315,499	Ha
	1.1 Total area of Gravity Irrigation Schemes	283,618	Ha
	1.2 Total area of Lift Irrigation Schemes	2,040	Ha
	1.3 Total area of Drainage & flood protection Schemes	29,841	Ha
2	Addition of the new irrigable area extend from ongoing projects in coming years	8650	Ha
3	Percentage of irrigated agricultural area under the ID from total irrigated agricultural area in Sri Lanka	65	%
4	Total paddy production in year 2009 Yala and 2009/2010 Maha Seasons in ID schemes	2,142,074	M.t
5	Percentage of paddy production in the schemes under the ID against the total paddy production in Sri Lanka	65	%
6	Value of the total paddy production (Assuming Rs. 29 per kg)	62.12	Bn.
7	Present Cropping Intensity	1.61	-
8	Target Cropping Intensity for the year 2010/2011	1.65	-

### Financial

S.N	Description	Amount	Unit
1	Operation & maintenance cost of irrigation schemes in 2010	1.25	Bn.
2	Total Recurrent & Capital Expenditure of ID in year 2010	4.71	Bn.
3	Total Budget Estimate of 2010	5.93	Bn.

### Human Resources

S.N	Description	Amount	Unit
1	Present total number of Employees in the ID		
	1.1 Approved number of Employees ( Carder )	4908	No.s
	1.2 Presently available employees	3155	No.s

**b. Performance of Projects and Programmes implemented by Mahaweli  
Authority of Sri Lanka**

**Overall Financial Progress**

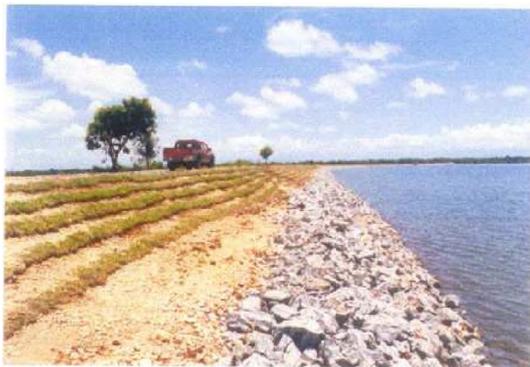
In 2010, the fund of Rs.4, 409 million was allocated as a capital provision for the implementation of Mahaweli Development Programme. The financial progress up to the end of December 2010 is given below:

Type of Project	Rs Mn		
	2010 Budget	Amount Released by the Treasury	Expenditure 2010
Foreign Funded Projects	3,067	2036	1965
Mahaweli Projects	564	411	414
Feasibility Studies	35		
Administration and Maintenance	743	566	555
<b>Total</b>	<b>4,409</b>	<b>3013</b>	<b>2934</b>

**Foreign Funded Projects**

**1. Walawa Left Bank Development Project**

Walawa Left Bank Development Project (Phase II) was commenced in the year 1998 to develop 4,700 ha of new land along with necessary infrastructure for 9,000 farmer families. The construction works were completed in 2008 with the irrigation network for 4,700 ha of new cultivable land, consists with 42 Km of Main and Branch Canals, 101 km of distributor canals, 350 km of field canals, 63 minor reservoirs. The project included 173 buildings for schools, offices and other socio-infrastructure facilities were constructed and 330 km new road network added to the national network.



Walawa left Bank Project

Total Estimated Cost of the project was Rs. 9,588 million. Expenditure up to end 2008 was Rs.9, 439 million. Rs. 20 million, allocated in 2010 for the completion of residual work and total allocation was fully utilized.

### 3. Morogahakanda-Kaluganga Project

Morogahakanda-Kaluganga Development, the largest irrigation development project, is being presently undertaken, with aims to construct two reservoirs with the capacity of Moragahakanda - 521 MCM and Kalugagnga- 144 MCM and its conveyance system to irrigate 81,500 ha. The project comprised with a hydro power plant with the capacity of generating 20 MW. It further targets for supplying required waters for domestic and industrial needs in districts of Trico alee, Matale, Anuradhapura, and Pollonnaruwa... The estimated overall project cost is 557 USD (Rs.64.358 million). This project has been approved in 2007. The total expenditure by end 2010 is Rs.3403.55 million.



Moragahakanda survey



Moragahakanda Saddle Dam 2

The financial allocation for year 2010 was Rs.2, 047 million of which Rs.1278 million was released by Treasury at end of December 2010. The released fund was fully utilized for surveying, construction of access roads including bridges across Ambanganga and Kaluganga, construction of office buildings, construction of saddle dam No.2 of the Morogahakanda Reservoir and 7 village tanks in the proposed resettlement area. Resettlement Plan was finalized in 2010. The construction work of saddle dam No 2 of Morogahakanda reservoir showed 90% of its annual target. Activities related divisional centers and village centers have been started in the resettlement area. The construction work of Morogahakanda-Koombiyangala road and the office building in left riverbank was completed. The progress of the right riverbank is between in range of 75-100% of completion. The total construction of main road is with 60% of progress.



Village center of Wellewela



Village center of Guruwela

Foreign funds have been sought for the implementation. The financial aid for Kaluganga reservoir project is provided through a consortium of funding agencies. Kuwait Fund has agreed to provide 10 million Kuwait dinar (USD 37 million), 173 million Saudi riyal (USD 46 million) by Saudi Fund, USD 10 million by OPEC (Organization of the Petroleum Exporting Countries).

Negotiations with Japan International Cooperation Agency (JICA) are underway to finance the Morogahakanda Reservoir Project.

#### 4. Dam Safety and Water Resource Management Project

The objectives of the DSWRPP are to (a) Ensure long-term sustainable management of state owned irrigation structures and assets for operation and maintenance of large dams; and (b) improve water resources planning. These objectives would be achieved by implementation of main three project components namely (i) Improving dam safety and operational efficiency; (ii) Upgrading and modernizing the existing hydro-meteorological information systems; and (iii) Providing technical assistance for developing national water use plans which includes (1) National water use master plan, (2) Update Mahaweli Water Resource Development Plan and (3) Integrated and comprehensive Mundeni Aru Basin development plan.

The total estimated project cost is Rs 7,739 million (US\$ 72 million) of which Rs. 7055 million (US\$ 56) is financed by the IDA-WB.

Project has achieved a significant progress since commencement of the project in August 2008. Expenditure up to end of December was Rs 1200.5 million. The budget allocation for 2010 was Rs. 1000 million of which Rs 710 million (71%) has been utilized.

Project has reached to a level that project implementation is gain momentum as detail designs and tender documents are being developed by ISC in accelerated manner to complete the preparation of detail designs and tender documents for 32 dams by 30<sup>th</sup> June 2011. Consultants have completed inspection of 32 dams, preparation of conceptual designs for 32 dams and detail designs and tender documents for 16 dams out of 32 dams.

Compliance with environmental and social safeguard management policy, Environmental Assessment and Environmental Management plans were completed for 32 dams identified for remedial works. Project has awarded 5 remedial contracts to rehabilitate Dambuluoya, Kandalama, Parakrama Samudraya, Kantale and Inginimitiya dams. Physical progress of remedial civil works in Dambuluoya, Kandalama, Parakrama Samudraya and Kantale are 98%, 55%, 5% and 5% respectively.



Construction of Kandalama Dam



Dambulu Oya Dam

Tender document is developed by Implementation Support Consultants -2 and submitted to World Bank for “No objection” to hire Supply Installation Consultants (SIC) to undertake upgrading and modernization of 103 hydro-meteorological stations to establish Hydro-meteorological Management Information System. Design methodology for core ground water monitoring programme was developed to establish core ground water monitoring system in the country and pilot areas have been identified in consultation of Water Resources Board by ISC -2. Three draft report developed on National Water Use Master Plan, update Mahaweli Water Resources Development plan and multi-sector integrated and comprehensive Mundeniaru basin development plan based on initial consultative meetings held in 25 districts to gather development proposal and issues on water resources from agencies involved in water sector as well as other stakeholders in the districts.

## **Mahaweli Projects**

### **1. Mahaweli Consolidated Project**

The objective of the project is to rehabilitate the irrigation network that was constructed in year 1982- 1986 in Maduru Oya Left Bank. Improvement of water management and drinking water supply scheme under village self-help project, supporting for agricultural development and farmer organizations, and implementation of environmental conservation programmes are becoming a work part of this project. The irrigation system renovation covers the maintenance of 52km of main canals, 65km of branch canals, 459km of distribution canals, 1,138km of sub canals, 54km of drainage canals, 80km of waterways and roads, and small tanks. The estimated overall project expenditure is Rs.2, 800 million. The project is scheduled for 06 years.



Main Branch Canal and Distributor Canal

This project commenced in 2007, and cumulatively Rs.1, 053 million has been utilized at the end of 2010. The fund allocated for 2010 is Rs.457 million, of which Rs.338 million released from General Treasury was disbursed. Renovation works of 26km of main canals, 11km of branch canals, 17km of distribution canals, and 92 km of field canals have been completed. In addition to this, 18km of drainage canals and 200km length of roads were rehabilitated.

## 2. Riverine Bamboo Project



Nursery of Bamboo Project in Kotare

This project has been designed with a view to mitigate the soil erosion in Mahaweli river basin and to generate additional income through bamboo-based products. This project commenced in 2006. 149,240 tissue cultured plants have been grown during this year, and about 105,000 tissue cultured plants are in nursery beds. The approved fund for the year 2010 was Rs.29.5 million. The fund released from Treasury was Rs.19.57 million.

## 3. Special dairy Development Project – Mahaweli System ‘C’

This project was initiated in 2007 with a view of upgrading the income status of Mahaweli system C- settlers. Initially 500 dairy farmers were target and consequently it extends the number of beneficiaries.



Dairy Development Project in System C

She- calves and 136 he-calves have been distributed under the programme. The project has helped to construct 413 cattle sheds. The total fund disbursed for the project is Rs.120 million, and Rs.49 million had been utilized by end of 2009. Rs.15 million was allocated for 2010, of which Rs.12 million, released from treasury was fully utilized for facilitating farmers in the production process.

#### **4. New Commercial Crops**

The purpose of the project is to introduce the commercial crops for Mahaweli settlers to get involved them in commercial farming and thereby increase their revenue and investment capacity. Under the project trade crops such as pineapple, grapes, mango and dragon-fruit, and modern agro technological guidance are provided for settlers. Rs 5 Million was allocated for the project activities within the year 2010.

#### **Maintenance and Administration**

Mahaweli Authority of Sri Lanka has been assigned with responsibility of managing water for 175,000 ha of irrigation land. Maintenance responsibility of 9,800 km of irrigation system, 400 small scale-tanks and 800 km of road network in 08 Mahaweli system including maintenance & operation of 08 large-scale reservoirs also has been assigned to Mahaweli Authority. Likewise, implementing agricultural / livestock programmes, post settlement development programmes, land administration in Mahaweli systems fall under tasks of Mahaweli Authority of Sri Lanka.

Rs.743 million was allocated in 2010 for the above maintenance & administration task. Rs.566 million has been released out of which Rs.555 million has been utilized by end of December 2010.

- **Progress of Mahaweli Zones**

The fund allocation for operation & maintenance of land, and land administration, and agricultural & post settlement activities of Mahaweli systems 'B', 'C', 'D', 'G', 'H', 'L', Udawalawa, Huruluwewa, Victoria and Kotmale Rs.743 million. The regions carry out maintenance of irrigation system; land alienation, settlement development extending the facilities for 159,000 families settled in Mahaweli areas. Total allocation for the year 2010 was Rs.555 million.

**a) Maintenance of Irrigation network**

Secondary growth clearing, De silting, repairs and improvement of irrigation system and paving gravel etc. are coming under Mahaweli irrigation systems maintenance tasks. For the year 2010, Rs.100 million was utilized to complete these activities. 772 farmer organizations out of 913 have been assigned with maintenance of existing distribution canals by themselves. It was able to save Rs.11 million in maintenance expenditure due the assigning of maintenance activities to farmer organization.

**b) Women Development Activities**

The Women plays a key role in achieving Mahaweli Development targets in agricultural sector. The contribution for the house hold economy through women empowerment is highly promoted in Mahaweli Development areas.

Accordingly 189 woman small groups were established within Mahaweli Areas during the year 2010. With this establishment, total number of woman small groups increased up to 2,245. The membership growth has gone up to 12,660. Accordingly, overall saving range is Rs.49 million. Rs.14 million worth of loans have been granted to members in these small groups.

**c) Training**

The division of Human Resource and Institutional Development implemented 102 training programmes for staff training and 5,203 programmes for settlers aiming for capacity building and post settlement development including Moragahakanda new settlement area during the year 2010.

**d) Land Alienation**

Land and settlement development is a major task of relevant regional Project management of Mahaweli areas. 14,010 grants, 5,655 permits have been issued under land development ordinance. In addition to this, 84 long-term lease titles were issued. 397 of field days were organized within the year. Land titles have been transferred and granted to 1589 settlers.

- **Agriculture Development**

- a) **Agricultural Productivity Enhancement Programme**

The programme was initiated for enhancement of local food crop cultivation and livestock production which will lead to reduce agricultural imports for the country and establish country's food security. Series of programmes such as 'Api Wawamu Ratanagamu', 'One Village and One Crop', 'Increasing Use of Organic Fertilizers', Dairy Development 'Poultry Farming' and 'Inland Fish Culture' are in operation under this major programme. During the year 2010, the fund of Rs 90 million was allocated for Mahaweli systems to implement agriculture productivity enhancement programme.

- b) **Agricultural Crop Cultivation**

Cultivated paddy land extent in Mahaweli areas recorded as 92,000 ha during 2009/2010 Maha season and 80,495 ha in Yala 2009. It shows 4 % growth comparing the last year. Average yield in Maha season in Mahaweli area was estimated as 5.82 Mt. per ha and it is 30 % higher than national average yield. Highest average yield of 6.5 tons have recorded in Mahaweli system 'H'. The total paddy production in 2009/2010 is 930,000 Mt. Total other field crop production was estimated as 346,300 Mt. The total value of paddy and OFC in the year 2010 was Rs.48, 028 million.

- c) **Dairy Development**

Dairy farming is promoted in Mahaweli Areas as an additional income sources and maintain the proper nutrient level of the community. Livestock Management Division of MASL is responsible for implementation and monitoring of dairy development programme for each Mahaweli system. Accordingly 80 training programmes for dairy farmers were conducted for the year. 297 calves were distributed and 541 cattle sheds were constructed. 7539 animals were vaccinated. In addition, 5970 number of animals also artificial inseminated.

- d) **Inland Fisheries and Ornamental Fish Culture**

Inland Fishery Development within Mahaweli reservoirs would be key impact on upgrading economic status of settlers. The number of fingerlings released to ponds and tanks in Mahaweli area

by end of December 2010 was 1,194,100. The Total production is 7,168 Mt. Meanwhile Ornamental Fish culture programmes are organized focusing young generation of Mahaweli areas facilitating them for sustainable employment opportunities and entrepreneurship development.

- **Forest & Environment Conservation**

The development activities under this component cover 76 programmes on 40,000 Square meters of soil conservation and forest plantation, and 49 environmental awareness programmers. Rs.13 million has been allocated for 2010, and the fund disbursed up to end of December is Rs.11.9 million.

- **Mahaweli Farms**

MASL plans for establishment of new agricultural farms within Mahaweli area in addition to existing 12 farms in order to achieve high land productivity, generate more employment opportunities, maintain the self-sufficiency in seeds and plant species, high utilization of irrigable water capacity and ensure food safety. .

Presently 11 livestock farms are administrated by Mahaweli Authority and it seeks for further improvements in terms of production capacity. It has been made arrangements for increase Mahaweli Farms up to 50 in number.

- **Eco-Friendly Tourism**

Programmes have been initiated for further improvement and landscaping areas of Mahaweli reservoirs and green areas, attracting tourist into beautiful sceneries in Mahaweli zone. Boat services are organized within water ways.

- **1.9 Mini Hydro Power Projects**

Applications have been processing for construction of 18 mini hydro power stations in Mahaweli areas. Approval has been given only for 11 projects of which work of 5 projects have been already

commenced .The power generation from Maduruoya Mini hydro power plant is to be started in May 2011.

- **1.10 Local Investments for Lands**

Necessary facilitations have been organized for local investments in agricultural development within Mahaweli areas. Accordingly arrangements are to incorporate local investors, opening up 200 lots of lands each with the extent of 20ha in Maduruoya division. Priority is given for export oriented commercial crop cultivations, providing more opportunities for Mahaweli Farmers to get involve in Country's economic growth through agricultural sector.

## **C. Performance of Projects and Programmes implemented by Water Resources Board**

### **01. Dug Well Cleaning Project in Resettlement Areas of Northern Province**

Under the “Uthuru Wasanthaya” Programme dug well cleaning Project was commenced in Kilinochchi and Mulathivu districts in order to provide drinking water for the resettlement community in the two respective district areas. Under this project, 750 dug wells have been cleaned in 2010. This project was funded by UNICEF.

Allocation for year 2010	-	Rs 19.5 Mn
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Expenditure to end of Dec. 2010	-	Rs 19.5 Mn
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### **02. Tube Well Construction Project for the Army Camps in Northern Province**

Under this project, 06 Nos. of Production tube wells and 02 Nos. of Hand Pump tube wells have been constructed in Kilinochchi and Mulathivu army commanding area. Addition to that, 04 Nos. of pumping tests have been carried out in Mulathivu Commanding area.

Allocation for year 2010	-	Rs 6 Mn
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Expenditure to end of Dec. 2010	-	Rs 6 Mn
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### **03. Environmental study related to evaluation of the quality and quantity of the ground and surface water resources in the Northern area.**

The objective of this study is to identify the water sources in the Northern area by evaluating the quality and quantity of the ground water and surface water with the collaboration of Central Environmental Authority and Disaster Management Center. This project is implemented in 03 states and the reports will be prepared with the analyzing of data collected during the study period and finally the recommendations will be made on the utilization of water resources in the area for various activities under environmentally friendly manner.

Allocation for year 2010	-	Rs 7 Mn
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Expenditure to end of Dec. 2010	-	Rs 7 Mn
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**04. Project of Constructing Production tube wells for the agricultural activities combined with the Agrarian Services Department in Mannar.**

11 Nos. of production tube wells have been constructed for the agricultural activities in Mannar, Murunkan and Adampane Divisional Secretariat Divisions in Mannar district. This was funded by Oxfam through the Department of Agrarian Services.

Allocation for year 2010 - Rs 3.81 Mn

Expenditure to end of Dec. 2010 - Rs 3.81 Mn

**05. Tube well Rehabilitation and Tube well construction project in the Siyambalanduwa Divisional Secretariat of Moneragala District**

A sum of Rs. 2.9 Million was granted to the Water Resources Board under the “Gama Neguma” Project for rehabilitation of existing tube wells and construction of new tube wells to supply drinking water for the people who faced severe drought at the end of year 2009, in the Siyambalanduwa Divisional Secretariat Division of the Moneragala district.

**06. Construction of 31 Nos. Hand pump tube wells under the “Wadakkin Vasantham” Programme in Vavuniya District**

Under this Project, 31 Nos. of hand pump tube wells were constructed. Rs. 9.3 Million was provided by the Government Agent, Vavuniya. Expenditure to end of Dec. 2010 was Rs 9.3 Mn.

**07. Training Courses and water clinics project conducted by Research & Training Center, Korakahawewa, Anuradhapura**

Three day awareness workshops were conducted for the government Officers such as Grama Niladharies, Samurdhi Development officers, Public Health Inspectors, Mid wives, School teachers, Agricultural Research & Development Officers and community Health Development Officers etc. under this project. Details of the officers trained under this project up to October 2010 are as follows.

Course Content

- Introduction to water resources of Sri Lanka including groundwater and surface water qualitatively and quantitatively with respect to the drinking water standards.
- Water management and conservation, methods of groundwater exploration, water pollution, and environmental problems occur due to over exploitation.
- Water borne disease, cause for the diseases, prevention methods
- Water purification methods, introducing different type of filters.

List of Participants

• Grama Niladharies	-	29
• Samurdhi Development Officers	-	06
• Mid Wives	-	11
• Agricultural Research & Development Officers	-	10
• Community Health Development Officers	-	<u>44</u>
Total		100

Under the water clinic programme, the awareness of people based on the quality of the well water in selected villages is performed. This is useful to identify the areas where the low quality drinking water exists.

No. of water clinics performed	-	12
No. of Participants	-	1500
No. of filters distributed	-	1500
No. of Water analysis for Fluoride	-	773



**High yielding tube wells constructed for Army dug Camps in Northern Province.**



**Water quality testing after cleaning of wells in Northern Province**

### Progress of the work conducted in 2010

Activity	Amount (Rs.) Million
<b>Project undertaken under the Treasury Grant</b>	
(01) Water Clinics and conducting Awareness Programmes in Korakahawewa Training Center	4.7
(02) Acquisition and Improvement of Capital Assests	3.9
<b>Sub Total</b>	8.6
<b>Recurrent Grant</b>	
65.0	
<b>Generated Funds</b>	
(01) Dug well cleaning under "Uthuru Wasanthaya"	Rs. 19.5 (Rs. 53.0 worth of work has been completed)
(02) Tube well construction of Army Camps in North	6.0
(03) Hydro geological assessment of surface and groundwater availability and quality as a part of strategic environment assessment in the Northern Province	7.0
(04) Constructing Production tube wells for the agricultural Activities.	3.8
(05) Tube well rehabilitation in Siyambalanduwa DSD in Monaragala District	2.9
(06) Hand pump tube well construction Vavuniya	9.3
(07) Sporadic work (Hydro geological surveys, Tube well drilling, pumping tests, well rehabilitations, pump installation, water sample analysis)	80.0
<b>Sub Total</b>	128.5
<b>Total</b>	<b><u>202.1</u></b>

**Rs.202.1 million worth of work has been completed in the year 2010.**

#### d. Performance of Projects and Programmes implemented by Central Engineering Consultancy Bureau

In year 2010, CECB has carried out many projects displaying the capacity, capability of the organization. The three divisions' viz. Consultancy Division, Construction (EPC) Division and International Division has made significant contributions to the project outcomes in this year.

Total number of projects carried out by each division in year 2010 has been listed below.

##### Number of projects carried out by each division in year 2010

Description	No. of Projects
Consultancy Division	155
Construction Division	189
International Division	9
<b>Total</b>	<b>353</b>

As shown in Table 2.1 all three divisions carried out 353 projects which were awarded to CECB in year 2010 or in a prior year. As shown in Table 2.2, CECB was awarded 149 new projects in year 2010, while 204 projects which were carried out in year 2010 were commenced prior year 2010 (i.e. on-going at the beginning of January 2010).



**Residence & Chancery of the Deputy High Commissioner for Sri Lanka in Chennai**



**Sri Lanka High Commissioner's Residence in London**

**Breakdown of the projects carried out by CECB in year 2010**

Description	Projects commenced in year 2010	Projects commenced prior year 2010	Total projects carried out in year 2010
Consultancy Division	66	89	155
Construction Division	80	109	189
International Division	3	6	9
<b>Total</b>	<b>149</b>	<b>204</b>	<b>353</b>

Graphical illustration of the number of projects carried out in year 2010 is shown in below.

Appendix A – F shows the details of the projects carried out by the three main divisions of CECB and also by each AGM.

**Figure 2.1: Projects carried out in year 2010**



**Sewerage Scheme to NTS & General Hospital  
Ampara**

### Project achievements in year 2010

Majority of these projects achieved the annual work plan targets for year 2010. Where CECB was not able to achieve their targets it was either a delay from the client's side or natural cause such as heavy rain delaying construction etc....

For each project handled by CECB, the actual achievements against the work plan targets for year 2010 were measured and the achievements have been summarized below.

### Target achievement rate at CECB in year 2010

Description	Target Achievement Rate %
Consultancy Division	83.23%
Construction Division	52.91%
International Division	100%
<b>Average</b>	<b>78.71%</b>

shows the summarized details of the number of projects carried out by each AGM unit. Further this table shows the number of projects which achieved targets for year 2010.



Stupa for Mahameunawa Asapuwa



Spillway Gates Left Installation, Upper

Kothmale



Construction at Madolkele – Kabaragala  
Kandenuwara Road

## 9. Ministry Involvement in North Development

Number of projects and Programmes were carried out by the implementation organizations of the ministry in the development of North in 2010 under Ministry budgetary allocation.

### Sri Lanka Mahaweli Authority

#### Development of system L.

Sampathnuwara Divisional Secretary divisions of Vaunia and Mullativu District had been selected to implement this programme which included allocation of breeding heifers, distribution of parachute trays, creating Farms, distribution of paddy seed packets, Fish cultivation, distribution of crafts and net equipments, nurseries, irrigation activities, road development activities and building construction works.

The budgetary allocation in 2010	-	Rs. Mn. 41.02
Expenditure at the end of 2010	-	Rs. Mn. 39.32

### Water Resources Board

#### Dug well cleaning project in resettlement of displaced persons in Killinochchi and Mullativu district - UNICEF

750 wells work cleaned under this project.

The Budgetary allocation in 2010	-	Rs. Mn. 19.5
Expenditure at the end of 2010	-	Rs. Mn. 19.5

#### Tube well construction project in resettlement areas in displaced persons in Killinochchi and Mullatvu district – UNICEF

The allocation was released in December 2010 and the project will completed in 2011

The Budgetary allocation in 2010	-	Rs. Mn. 3.48
Expenditure at the end of 2010	-	Rs. Mn. 0

Other than the above programmes and projects number of projects was implemented by the water Resources Board and Irrigation Department under the other sources of Funds.

## **10. Performance of projects in pipeline – 2010**

### **Lower Malwathu Oya Reservoir Project**

It is proposed to construct a storage reservoir to regulate the flow of lower part of Malwathu Oya in order to provide reliable water deliveries to Giant Tank and Akathimuruppu scheme in Mannar District cultivating about 10,000 Ha and 2,500 Ha of paddy lands respectively. This reservoir with capacity of 300 MCM will further provide water for urban water supply scheme of Cheddikalam Township and 1000 Ha of new lands for irrigation in the immediate downstream.

### **Gin Nilwala Transbasin Diversion Project**

In Southern Province Gin Ganga and Nilwala Ganga Basins receive an average rainfall of 3,000 mm annually and flows to the sea without making much use of this water while causing flood damages in the low lying areas in Galle and Matara Districts. Therefore, these excess water resources of two basins are planned to be diverted to provide supplementary flow to South East Dry Zone.

A Memorandum of Understanding (MOU) has been signed with China CAMC Engineering Co. Ltd to update feasibility studies and cost estimates, to prepare detailed designs and construct the project components. These technical and financial proposals are yet to be submitted by them. Once this project is completed it would be possible to meet the water deficiencies for irrigation, domestic and industries in the basins of Walawe, Kirama oya, Urubokka oya, Kachchigal ara etc, while producing 20 GWH of electrical energy of the national grid and reducing floods in the low lying areas. Digital Contour Data from the Survey Department and Hydrological Data from the Meteorological Department for the feasibility study have been purchased. Conceptual studies for the surveys are being carried out.

## **Yan Oya Reservoir Project**

It is proposed to construct a reservoir having a capacity of around 250 MCM across Yan Oya at Pangurugaswewa village adjoining existing Wahalkada Tank in Anuradhapura District.

It is proposed to provide supplementary irrigation facilities for existing paddy lands under Padaviya scheme, Wahalakada Scheme, Lower Yan Oya anicut schemes and few lands under minor schemes totaling 1850 Ha and 100 Ha of new lands by LB canal. The proposed RB canals in Trincomalee District will provide water for 1000 Ha of lands under number of minor schemes.

The Engineering surveys and EIA study have been commenced. The Ministry has signed a MOU with China CAMC Engineering Co, Ltd for preparation of detailed designs and estimates and implementation subsequently. CAMC has submitted Technical and Financial Proposals. Cabinet approval was sought for appointing Project Committee (PC) and Cabinet Appointed Negotiating Committee (CANC) and to implement the project through CAMCE under the supervision of the Irrigation Department.

Initial activities for the evaluation of financial and technical proposals are being attended.

## **System B – Right Bank (Maduru oya)**

Purpose of the Project is to develop the undeveloped land in the Maduru Oya Right Bank in the Eastern Province utilizing available diverted water from the Mahaweli River to achieve economic development through agricultural development of 14,500 ha of irrigable land and to uplift living standards of 17,212 new settlers to be selected from the internally displaced families in the Eastern province and thereby alleviate poverty.

The total cost of the project will be around 25,000 million rupees. In the Budget 2011, 10 million rupees has been set apart for updating engineering survey, soil survey and detailed designs.

## **Development of Mahaweli System L (Weli oya)**

System L is one of the irrigation systems with an extent of 163,393 ha located in the districts of Mulathive, Trincomalee, Vavunia and Anuradhapura has been identified in the Mahaweli Master Plan for future development through NCP canal.

The project area is located in between Padaviya tank and Kokilai lagoon in part of North Central, Eastern and Northern Province of Sri Lanka. System L has been divided into nine Zones. There are seven Zones on the Left Bank and two zones on the Right Bank of Ma oya under the command of Padaviya Reservoir.

It is expected to raise the living standards of 6000 farmer families in System "L" through development of 2240 ha of irrigable land providing irrigation water by renovation of 56 village tanks within the basin by end Year 2015 by this Project.

Abounded 56 tanks which have not been fully utilized so far could be utilized for improving the living condition of 6000 farmers who have been living below poverty line. This will generate direct benefits and create multiplier effects in the region.

Total cost of the project will be approximately 750 million rupees. Budgetary allocation for feasibility studies in 2011 is 5 million rupees.

## **Water Resources in Kalu Ganga Basin and Flood Protection**

The Ministry has entered into a Memorandum of Understanding (MOU) with TAHAL Engineering Ltd, in Israel, for the above purpose in January 2009. The Development work will take place in three phases.

- i. Full feasibility study for Rathnapura reservoir.
- ii. Installation and calibration of the flood protection management model
- iii. Water Resources development study for the entire basin.

The technical proposal submitted for phase I and II for US \$ 6,647,000 is under scrutiny by a Technical Evaluation Committee at present. Appointed CANC and PC to evaluate Technical and financial proposal submitted by the TAHAL consulting Engineers Ltd and to implement the proposal. Final Project Committee Report was issued.

## **Pre-feasibility Study for NCP Canal**

In the original Mahaweli Development Programme, the existing major schemes together with new irrigation reservoirs proposed in the North Central Province (NCP) and Northern Province (NP) are to receive Mahaweli waters through the NCP canal planned to take off immediately below the proposed Moragahakanda reservoir to provide irrigation waters to 50,000 hectares of existing and 100,000 hectares of new lands in systems I.J.K.L.M. Further in the same programme, it is proposed to improve the existing Minipe LB canal and extend it up to Angamedilla and beyond feeding all Polonnaruwa systems and ending up in Kantalae tank to capture and divert Mahweli waters spilling over Minipe anicut during peak power generation times of the Rantambe reservoir. Once this water is diverted to Pollonnaruwa systems, then part of the water in the Moragahakanda could be utilized for the irrigation systems to be taken up under the NCP canal. The water available presently in the Moragahakanda reservoir is adequate only to provide irrigation waters up to Mahakandarawa tank.

Several changes have now taken place from the original plan in view of the ongoing developments and also due to new proposals to be implemented in the near future. These projects has further reduced the water availability at key locations in the Mahaweli system and this factors need to be taken into consideration in the formulation of the NCP canal.

The ministry of Irrigation and Water Resources Management has entrusted a Pre-feasibility study to Mahaweli Consultancy Bureau (MCB) (contract value Rs 25 million) The objective of this study is to make an assessment of water available presently in the Mahaweli system and to recommend engineering and environmental measures for the implementation of limited option of NCP canal from Huruluwewa up to Kangarayan Aru of length 100 km and also to recommend individual feasible projects that could be taken up independently for detail designs and implementation.

The work on this study commenced in August 2010 and it is proposed to complete this study by end of April 2011. (9 months study). Budgetary allocation in 2010 was 300 million rupees.

## **Lower Uma Oya Multipurpose Development Project**

Uma Oya is a major tributary of Mahaweli Ganga. It originates in the Central Highlands approximately at an elevation of 2500 m MSL and flows eastwards initially and changes its course northwards beyond Welimada plateau at around 1010 m MSL and joins Mahaweli Ganga discharging into Rantembe reservoir at an elevation of 152 m MSL. The catchment area of entire Uma Oya basin is around 720 square km and it drains over 450 Million Cubic Meters (MCM) annually into Mahaweli Ganga at Rantembe.

Though it has been observed that the Uma Oya Basin can more or less sustain its demand for water during the NE Monsoon, it has been reported that during SW Monsoon there is a scarcity of water, more specifically, in its lower reaches. Since the ongoing UOMDP is designed to divert water from Uma Oya basin to Kirindi Oya basin, water users downstream of proposed Puhulpola and Dyraaba dams are thoroughly disturbed that after implementation of UOMDP the situation would aggravate further during dry spells. Bearing this situation in mind, at the launching of the ongoing UOMDP, a firm commitment had been made by the officials of this Ministry that the grievances related to water issues in the Uma Oya Basin would be adequately addressed and solutions be incorporated during the implementation of UOMDP.

To ensure a total discharge volume of 40 MCM at Rantembe to meet the deficit that may arise at Minipe Anicut as per requirement imposed by Mahaweli Authority of Sri Lanka (MASL) , a total discharge volume of 3 MCM to meet the deficit that may arise at Bathmedilla to safeguard the requirement of the farmers fed through Bathmedilla Anicut Scheme, and to meet other environmental requirements it is now proposed to construct a reservoir across Uma Oya at a location up stream of Bathmedilla Anicut which will lead to enhance regulation and management of Uma Oya basin water resource while ensuring environmental flow, irrigation requirement at Minipe Anicut, and irrigation requirement at Bathmedilla Anicut, etc. thus winning hearts and eliminating fear psychosis of downstream water users who are presently not in favor of the ongoing UOMDP.

Moreover, the Proposed Lower Uma Oya Multipurpose Development Project will not only address the issues mentioned above but also would be designed to generate 40 GWh of energy through a hydro power plant with an installed capacity of 12 MW that will directly accrue around Rs. 500 Million annually to the national economy.

The Tentative Cost of the Project is Rs.5, 500 million. The project duration is four (4) years.