

**MAHAWELI AUTHORITY  
OF  
SRI LANKA**

**ANNUAL REPORT - 2004**

## **CHAPTER -1**

### **THE MAHAWELI AUTHORITY OF SRI LANKA**

The Mahaweli Authority of Sri Lanka (MASL) was established under the Act No. 23 of 1979. The year 2004 marks the completion of the 25<sup>th</sup> year of its existence. The functions of the Mahaweli Authority of Sri Lanka are set out in Section 12 of the MASL Act, and is entrusted with the task of implementing the Mahaweli Development Programme (MDP).

According to the Mahaweli Act, the functions of the Mahaweli Authority in or in relation to, any Special Area are,

- (a) To plan and implement the Mahaweli Ganaga Development Scheme, including the construction and operation of reservoirs, irrigation distribution system and installations for the generation and supply of electrical energy;.

provided however, that the function relating to the distribution of electrical energy may be discharged by any authority competent to do so under any other written law.

- (b) To foster and secure the full and integrated development of any Special Area;
- (c) To optimize agricultural productivity and employment potential and to generate and secure economic and agricultural development within any Special Area.
- (d) To conserve and maintain the physical environment within any Special Area;
- (e) To further the general welfare and cultural progress of the community within any Special Area and to administer the affairs of such area;

- (f) To promote and secure the participation of private capital, both internal and external, in the economic and agricultural development of any Special Area, and
- (g) To promote and secure the cooperation of Government Departments, State Institutions, Local Authorities, Public Corporations and other persons whether private or public, in the planning and Implementation of the Mahaweli Ganga Development Scheme and in the development of any Special Area.

Dr. M.U.A. Tennakoon assumed duties as the Director General of the Mahaweli Authority of Sri Lanka on 27<sup>th</sup> May, 2004 and continued to function as the Chairman of the Board of Directors of the MASL.

During the year 2004, the members of the Board were;

- |     |                            |   |
|-----|----------------------------|---|
| 01. | Dr. M.U.A. Tennakoon       | Chairman of the Board of Directors<br>and Director General/ MASL  |
| 02. | Mr. T.M. Abeywickrema      | Secretary to the Ministry of Mahaweli<br>and River Basin Development and<br>Rajarata Development (Member) |
| 03. | Dr.(Mrs.) Damitha de Zoysa | Director<br>Department of National Planning<br>General Treasury (Member)                                  |
| 04. | Mr.G.T.Dharmasena          | Director General<br>Department of Irrigation (Member)   |
| 05. | Mr. K.B. Sirisena          | Former Secretary,<br>Provincial Councils & Local Government,<br>371/1, Vidyalyoka Mawatha                 |

Hokandara South  
Hokandara (Member)

Mr. M.R. Fernando                      Secretary to the Board

The Mahaweli Authority of Sri Lanka has introduced an interim organization structure- in 1999 as part of a reform process and the following main Divisions and units were engaged in the implementation of projects, programmes and related activities of the Mahaweli Authority of Sri Lanka.

01. Main functions of the Mahaweli Authority of Sri Lanka

- (a) Secretariat
- (b) Planning and Monitoring
- (c) Central Internal Audit

02. Technical Services Division

- I. Head works, Operation and Maintenance

03. Development Services Division

- I. Lands
- II. Agriculture Development
- III. Business Development
- IV. Human Resources and Institutional Development.

04. Administration & Finance Division

- I. Personnel and Administration
- II. Finance
- III. Mahaweli Centre
- IV. Mahaweli Security Corps
- V. Transport & Maintenance

05. River Basin Planning & Management Division

- I. River Basin Planning & Management
- II. Kala Oya Basin Organization
- III. Water Management Secretariat
- IV. Environment & Forest Conservation

- 06. Mahaweli Architectural Unit
- 07. Foreign Funded Special Project
- 08. Companies established under the MASL

## **01. MAIN FUNCTIONS OF THE MAHAWELI AUTHORITY OF SRI LANKA**

The administration of the Divisions, units and projects offices of the MASL is co-ordinated by the Director General through the respective Executive Directors and Resident Project Managers.

The operation and maintenance of the major reservoirs and dams for provision of water to downstream irrigation settlement projects, and for power generation is a major function of the Authority. Water allocation for major water uses such as irrigation, hydropower and domestic water supply is coordinated at the national level in consultation with relevant line agencies through seasonal operational planning process. In the downstream major irrigation projects of system 'B', 'C', 'H', 'L' and Walawe, emphasis is on water management, community and human resources development, livestock, agriculture development with special attention on crop diversification, intensification and promotion of enterprises for socio-economic development and employment generation. Watershed management is promoted through educational and awareness programmes on soil and water conservation while monitoring of sedimentation and water pollution have become important programmes of the MASL. Dam Safety, through effective operation and maintenance programmes relating to upstream dams, reservoirs and diversion canals, maintenance of main and branch canals of major irrigation systems, transfer of responsibility of O & M of tertiary canals to Farmer Organizations in the downstream irrigation systems are also considered as priority programmes. Land settlement activities are continued in Victoria and Kotmale special areas. Management of special areas, downstream of Bowatenna up to Huruluwewa reservoir is one of the responsibilities of MASL.

## **Relief Assistance Programme**

Several programmes were launched under the direction of Director General/MASL and immediate action was taken to provide relief assistance to the victims who suffered from the Tsunami Tidal wave of December 26.

### **1.1 Mahaweli Systems.**

The development and management functions within the respective Mahaweli systems and special areas are falling under the purview of the respective Resident Project Managers (RPMs).

The Resident Project Managers report to Director General and specialized staff attached to Divisions and units at the Head Office facilitates the above programmes at system level under the direction of the Executive Directors.

### **1.2 Mahaweli System ‘B’**

Mahaweli System ‘B’ is the largest of the projects which comes under the Administrative Districts of Polonnaruwa and Batticaloa. The total project gross area under system ‘B’ is 75,441.48 hectares including 27,179.47 hectares of irrigable lands.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

Over 20,000 farm families have been settled to date in this system. 117 Farmer Organizations are actively involved mainly in irrigation, agriculture and water management in order to provide better service for the settlers. In comparison with other projects, the settlers in system ‘B’ had been facing with problems due to continued

unsettled conditions prevailed in border villages. However, no disturbances were reported adversely during the year 2004.

Due to frequent wild elephant conflicts, most of the settlers in this system had to face with problems throughout cultivation seasons and a great effort was made to solve such problems with the co-operation of relevant institutions.

In addition, there was an urgent need to place greater emphasis on creation of a new water system to protect nearly 600 hectares of fields under Wijayabapura and Damminna blocks affected due to a drought prevailed during the mid of year.

Most of the cultivated fields were destroyed due to floods prevailed in entire system during the end of year and a number of measures were taken to overcome the problems faced by detriment.

### **Special Programmes**

In addition, many programmes, workshops, seminars on various themes and the awareness programmes on Dengue, and educational and training programmes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

### **Main Crops and Other Field Crops.**

The main crop cultivated in System 'B' is paddy. Chillies, B-onion, green gram, cowpea, maize, vegetables, banana, papaw, mango, lime, orange, coconut and guava are other field crops cultivated under this project.

### **Relief Assistance**

Consequently, the staff of this system had been involved in relief assistance to the stricken victims of the Batticaloe District who suffered from the Tsunami tidal wave of December 26  
Financial Provision for the year 2004.

	Allocation (Rs Million)	Expenditure (Rs Million)
Capital	22.5	19.2
Recurrent	92	102

### **1.3 Mahaweli System ‘C’**

System ‘C’ area falls within the Administrative Districts of Badulla, Ampara and Polonnaruwa.

The total project gross area under system ‘C’ is approximately 52614 hectares of which 22500 hectares are irrigable.

196 Farmer Organizations are actively involved mainly in irrigation, agriculture and water management in order to provide a better service for the settlers.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

During the year 2004, the development activities were carried out by this system under several themes such as Community Development, Institutional Development, Human Resources Development, Marketing and Employment Investment and Business Development.

The important activity performed related to lands was mainly focussed on; recovery of leases /rents from commercial lands, commercial buildings, commercial farms and industries. The target was Rs.1.09 million but there was a possibility of collecting Rs. 6.2 million during the year 2004.



In comparison with previous year, an average harvest of paddy per hectare was increased up to 5.1 metric tons, including an increase upto 37870 bushels through marketing of seeds. Under Yaya Demonstration Programme, the average harvest of paddy per hectare was increased upto 5.8 metric tons while usage of seeds (paddy) in system 'C' recorded an increase of 70 per cent.

### **Special Programmes**

In addition, many programmes, workshops, seminars, awareness programmes, educational and training programmes on various themes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

Under Mahaweli Foundation Programme- Education years 2004-2006, 22 persons were selected for scholarships out of 138 scholarship applications and a sum of Rs. 26,400.00 was awarded to them covering an individual payment of Rs. 1200.00 per scholar.

Under health care programme, two mobile clinics were conducted for settler communities in system 'C' while one special clinic was held at Girandurukotte where the kidney trouble is mostly spread.

Besides, a seminar was held for G.C.E. (Ordinary Level) students at Dehiattakandiya under the patronage of Sri Lanka Rupavahini Corporation.

12,800 farmers were participated in farm training activities during the year and it was a great achievement, accomplished by the system.

### **Main Crops and other Field Crops.**

The main crop cultivated in System 'C' is paddy and other field crops cultivated under this system are chillies, B-onion, green gram, cowpea, maize, vegetable, banana, pepper, kurakkan, papaw and yams.

### **Ridimaliyadda Programme.**

Planning and Implementation of the development activities of this programme were managed under the supervision of the professional staff of the system 'C'. Specially, Participatory Development Projects were implemented under the Village Self Help Learning Initiative project (VSHLI).

On a subsequent decision, the development activities of this programme came under the supervision of the Divisional Secretariat with the budgetary allocation of Rs. 3 million. The Programme placed a greater emphasis on planning of the construction work of the anicut.

### **Relief Assistance**

The staff as well as the Farmer Organizations and settler communities of this system had been involved in relief assistance to stricken victims who suffered from the Tsunami Tidal Wave of December 26.

The details of the relief assistance sent by the system are as follows.

Serial No	Details of Collected Points	No. of Lorries	Distribution of relief Assistance ( District & Areas)
01	Mahawanawela	03	Batticaloa
02	Veheragala	03	Maradamadu Kalmunei
03	Nuwaragala	03	Ampara, Batticaloa, Lahugala
04	Siripura	06	Kalmunei and Panama
05	Medagama	06	Lahugala and Ampara
06	Sadunpura	08	Panama & Lahugala
07	Girandurukotte	01	Galle
08	Farmer organizations including other voluntary Organizations	31	Trincomalee, Batticaloa Ampara and Galle

	Total	61	
--	-------	----	--

Financial Provision for the year 2004

Financial Provision allocated by the MASL (For Capital & Recurrent)	-	Rs. 108.5 million
Expenditure for the year	-	Rs. 111.3 million

#### **1.4 Walawe Special Area.**

Walawe special area falls within the Administrative districts of Rathnapura, Hambantota and Moneragala.

The total project gross area under Walawe Special Area is approximately 62,803 hectares of which 21,873 hectares are irrigable.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

#### **Main Crops and Other Field Crops.**

The main crops cultivated in Walawe Special Area are paddy, banana and sugar. Other crops, cultivated in this area are coconut, jack, mango, vegetables, maize, green gram, chillies, cowpea, kurakkan and soya beans.

#### **World Food Programme**

Under this Programme, drip irrigation project has been implemented for farmers and the objects for which the project is established are;

- \* Expansion of Crop diversification
- \* Awareness on economical water usage
- \* More productivity through effective methods
- \* Harvesting during the off season and minimizing salinity.
- \* Improvement of living conditions of the farmer communities
- \* Establishment of 19 models of micro water projects.

18 models of micro water projects have already been established and the details of such models are indicated below.

Block	Cultivation	Area Sq. met.	No of Models
Suriyawewa	Banana	6,000	3
	Grapes	2,000	2
	Papaw	6,000	3
	Banana & Pineapple	2,000	1
	<b>Sub Total</b>	<b>16,000</b>	
Beriwewa	Banana	10,000	5
	Papaw	2,000	1
	Banana & Pineapple	2,000	1
	<b>Sub Total</b>	<b>14,000</b>	7
Mayurapura	Banana	2,000	1
	Grapes	1,000	1
	Sub Total	3,000	2
	<b>Total</b>	<b>33,000</b>	<b>18</b>

### Goat Project

Under the World Food Programme, this project was implemented in Walawe Left Bank Development Project in order to enhance the incomes of the farmer communities.

43 goat projects have been completed with the participation of selected 250 farmer families.

### **Financial Provision**

The budgetary allocation and the expenditure in respect of the Drip Irrigation Project and Goat Project during the year 2004 are as follows.

<b>Project</b>	<b>Funded by World Food Programme</b>	<b>Expenditure Rs.</b>
Drip Irrigation Project	1,415,000.00	979,883.19
Goat Project	1,000,000	703,728.30

### **Mayurapura Block**

The First-release of water, to be utilized for about 15,000 acres of paddy fields that come under newly developed block area of Mayurapura, opening of the office of Mayurapura block and the office of Grama Niladhari at wadiwewa came into effect on 16<sup>th</sup> November 2004 while the Health Centre and the Post Office at Thalawilla were peoplized.

### **Special Programmes**

In addition, many programmes, workshops, seminars, awareness programmes, educational and training programmes on various themes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

## **Social Work**

03 schools were established at Udawalwa, Gangeyaya and Angunukolapelessa areas to help the disabled children in collaboration with various government institutions .

An awareness programme was conducted at the beginning of the year at unit and block level to take precautionary measures to prevent from Dengue and at the end of the year a special programme was conducted related to pneumonia B infection spread in Embilipitiya area with the participation of Officials of Divisional Health Services.

Awareness Programme was conducted for a group of 150 (both male and female) youths with the participation of the Foreign Employment Bureau to find employment opportunities and also, the attention was paid to increasing small group awareness by organizing participatory programmes with banks regarding obtaining of loan facilities for small groups.

## **Relief Assistance**

The properties of 09 officers have been damaged while 81 persons including farmer communities and their relatives died in the disaster and later involved in relief assistance to the victims who suffered from the Tsunami Tidal Wave of December 26. The rations were provided for the victims.

The budgetary allocations and the expenditure in respect of the System during the year are as follows

Financial progress upto end of December 2004.

Description	Budgetary allocation	Expenditure upto End December 2004	Balance	%
Capital	15,000,000	13,004,216	1,995,784	87

Recurrent	92,900,000	93,225,029	(325,029)	100
Total	107,900,000	106,229,245	1,670,755	98

### **1.5. Mahaweli System ‘L’**

Mahaweli system ‘L’ falls within the Administrative Districts of Anuradhapura, Vaunia, Mulative and Trincomalee.

The total project gross area under system ‘L’ is approximately 48,193 hectares.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

### **Main Crops and Other Field Crops**

The main crop cultivated in this system is paddy and other crops cultivated in this area are chillies, B-onion, onion, green gram, cowpea, maize, kurakkan, vegetables, banana, ground nut and coconut.

11 farmer Organizations are actively involved in providing loan facilities, inputs to farmer communities and activities related to rehabilitation works.

### **Special Programme.**

In addition, many programmes, workshops, seminars, awareness programmes, educational and training programmes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

During the year, several programmes were conducted to enhance the skills of settler communities living in the area. The training programme specially conducted for women on self-employment and it was a successful one.

In addition, a programme was held to uplift the skills of farmer community on tractor training and maintaining of water pumps in collaboration with Vocational Training Authority and Divisional secretariat.

During the year, the system mainly focused on testing of drinking water, nutrition, prevention of spreading of Dengue and awareness programmes for the identification of kidney troubles through mobile clinics in order to protect the settler communities from various diseases.

Similarly, 17 persons were awarded scholarships under Mahaweli Foundation Programme.

The budgetary allocation and the expenditure in respect of the system during the year are as follows.

Description	Allocation & Expenditure (Rs)
Capital Expenditure	
Provision allocated for the year 2004	12,000,000.00
<u>Less</u>	
Expenditure for the year 2004	11,702,731.05
Balance as at 31.12.2004	
Recurrent Expenditure	297,268.95
Provisions allocated for the year 2004	16,500,000.00
<u>Less</u>	
Expenditure for the year 2004	17,137,524.90
Over expenditure as at 31.12.2004	637,524.90



Agriculture Productive Project	
Provisions allocated for the year 2004	500,000.00
<u>Less</u>	
Expenditure for the year 2004	491,137.50
Over expenditure as at 31.12.2004	8,862.50

This amount has been transmitted to MASL

Description	Budget	Expenditure	Balance
Sub Total Capital	12,000,000.00	11,702,731.05	297,268.95
Sub Total Recurrent	16,500,000.00	17,137,524.90	(637,524.90)
Grand Total	28,500,000.00	28,840,255.95	(340,255.95)

## 1.6 Mahaweli System ‘G’

This system comes under the Administrative Districts of Matale and Polonnaruwa and the total extent under this system is approximately 12208 hectares of which 5,400 hectares are irrigable.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

## Main Crops and Other Field Crops

The main crop cultivated under this system is paddy and chillies, B-onion, green gram, ground nut, cowpea, maize, gingili, vegetables, banana, pepper, yams ,coconut, jack, papaw, mango, lime, and orange are other field crops.

### **Activities related to Mahaweli Consolidation Project**

Consolidation work of system 'G' (Bakamuna) was completed under Mahaweli consolidation project and the irrigation system had been handed over to the Irrigation Department.

However, the defects of the completed structures constructed by the Mahaweli Consolidation project and the maintenance work of related irrigation system, including road system had been carried out by the system.

There was no possibility of completing some construction work scheduled to be completed within the year 2004 and making the payments of arrears due to contractors owing to non-receipt of required provisions as well as transferring of staff attached to the Mahaweli Consolidation Project.

### **Special Programmes.**

In addition, many programmes, workshops, seminars on various themes and the awareness programmes on Dengue, drug prevention, healthcare and nutrition, woman rights and child abuse and several programmes on Mahaweli Prathiba-2004, educational and training programmes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

### **Financial Provision**

Although Rs. 500,000.00 had been allocated for capital, it was increased up to Rs. 800,000.00 considering that the allocation was insufficient to be implemented project

activities of the respective year. Consequently, there was a possibility of getting an additional allocation of Rs. 107,261.00 for the activities of Mahaweli Prathiba -2004. In addition, financial assistance was given to Mahaweli system 'D' at the initial stage of commencement of the office of the Resident Project Manager.

### **1.7 Huruluwewa Feeder Canal Project**

This is a special development area of the Mahaweli scheme. This project is mainly responsible for regularizing development activities of settlement areas irrigated by Huruluwewa Feeder Canal.

The Huruluwewa Feeder canal Project aims at improving and rehabilitating 33 km long feeder canal and its structures to supply on assured quantity of irrigation water to the Huruluwewa Scheme.

Huruluwewa Feeder Canal Project falls within the Administrative Districts of Matale, Anuradhapura and polonnaruwa. The total extent under this project area is approximately 32,500 hectares of which 2250 hectares are irrigable.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

#### **Main Crops and other Field Crops.**

The main crop cultivated under this project is paddy and mango, coconut, jack, B-onion, sweet potatoes, soya, vegetables and chillies are other field crops.

52 Farmer Organizations are actively involved in activities related to irrigation, agriculture and water management in order to provide better service for the settler communities.

For Sigiriya Block	18 Farmer Organizations
For Kalundewa Block	21 Farmer Organizations
For Palugaswewa Block	13 Farmer Organizations

### **2003/2004 Maha Cultivation Season**

Nearly a total extent of 157 acres of cultivation was completely damaged due to prolonged drought prevailed in the area during this cultivation season.

### **2004 Yala Cultivation Season.**

The total extent of 400 hectares of paddy and 1175 hectares of other crops have been cultivated under this season through effective water management.

### **Special Programmes.**

In addition, many programmes, workshops, seminars, awareness programmes on various themes and educational and training programmes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

Under health care, a mobile clinic was held at Palugaswewa block for settler communities and 680 patients were medically examined by a group of medical staff and 06 sramadana campaigns were conducted in Kalundewa, Sigiriya and Palugaswewa blocks in order to protect the settler communities from dengue and other infectious diseases.

The budgetary allocations and the expenditure in respect of the system during the year are as follows.

<b>Description</b>	<b>Allocation (Rs million)</b>	<b>Expenditure (Rs million)</b>
Capital Expenditure	3.150	3.058
Recurrent Expenditure	11.656	12.404
<b>Total</b>	<b>14.806</b>	<b>15.462</b>

### **1.8 Mahaweli Victoria Project**

Mahaweli Victoria Project falls within the Administrative Districts of Kandy and Nuwaraeliya.

The administrative functions of the Kotmale Project have been consolidated with Victoria Project and the existing activities belonged to that project are now managed by Victoria Project. Mahaweli Kotmale project too comes under the same administrative districts.

The total project gross area under Victoria project is 3688 hectares and the total extent of Kotmale area is 2873.38 hectares.

Land administration and dispute solution, agriculture extension /livestock development, post settlement activities, human resource development and environment conservation were some of the main functions carried out by the project during the year.

#### **Fields Crops.**

Other field crops cultivated under this project are pepper and coconut.

#### **Special Programmes**

In addition, many programmes, workshops, seminars on various themes and the awareness programmes on Dengue, drug prevention, healthcare and nutrition, and educational and training programmes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

### **1.9 Mahaweli System ‘H’**

Mahaweli System ‘H’ area comes under the Administrative Districts of Anuradhapura, Kurunegala and Matale. The total project gross area under System ‘H’ is approximately 50,994 hectares of which 30,832 hectares are irrigable.

Irrigation water services, water regulations, land administration and dispute solution, agriculture extension/livestock development, business development, marketing, post settlement activities, human resource development, activities related to farmer organizations, tree planting and reforestation were some of the main functions carried out by the project during the year.

#### **Main Crops and Other Field Crops.**

Paddy is the main crop cultivated in this system and chillies, B-onion, onion, green gram, cowpea, undu, soya, maize, ground nut, kurakkan, yam, vegetables, gherkin, tobacco, plantains, papaw, water melon, sunflower, gingili, and betel are other field crops cultivated under this system.

270 D-Canal Farmer Organizations are actively involved mainly in irrigation, agriculture and water management in order to provide better service for the settler communities.

The extent of the cultivation, during the Maha season (2003/2004) was 32,170 hectares. In December, 2003, expected rains and diversion requirement of water were not received. As a result, the water levels of Kalawewa reservoir were reduced and that situation affected to the cultivation activities of Megallewewa, Mahalluppallama and Nochchiyagama blocks due to shortage of water.

However, the extent cultivated in Yala season (2004) was 11,117 hectares. Also there was no possibility of issuing sufficient water for cultivation due to drought conditions prevailed in entire season.

The extent of cultivation during Maha season (2004/2005) was 32,021 hectares.

### **Special Programmes**

In addition, many programmes, workshops, seminars, awareness programmes , and educational and training programmes on various themes were conducted by the project including cultural, religious and sports activities in order to ensure contented life styles of settler communities thus promoting harmonized development in the area on a sustainable basis.

### **Women Development Activities**

Under the woman development activities, 10 awareness programmes were conducted for 320 women in improving women bank loan programmes and their social welfare.

In addition, several awareness programmes were conducted for settler communities related to woman and child abuse and 2 awareness programmes were specially conducted for the families whose female members have gone abroad for employment.

### **Relief Assistance**

A value of Rs. 700,000/- commodity aid was provided by the system to the victims who suffered from the Tsunami Tidal Wave of December 26.

The budgetary allocation and the expenditure in respect of the system during the year are indicated below.

Description	Allocation Rs ('000)	Expenditure Rs ('000)
Capital Expenditure	9800	10605
Recurrent Expenditure	89295	98728

### **1.10 Mahaweli System 'D' (Medirigiriya)**

Realising the importance of comprehensive planning for rural development, the Mahaweli development programme continued to emphasize improvement of agriculture, productivity, income and the quality of life of people in areas which were not benefitting from large scale development programme.

Main occupation of the people in Medirigiriya is agriculture. Cultivations are done on major irrigation, micro irrigation and using rainy water too. The people in this area are facing drought weather conditions almost every year. Under these circumstances,



Mahaweli Authority of Sri Lanka is planning to improve socio-economic condition of the people through this special development programme.

For the implementation of development activities under this project, a separate RPM office was established on 31.10.2004.

Medirigiriya Divisional Secretary's area has been brought under the Mahaweli Command area. The total extent under this area is 21906 hectares of which 9036.03 hectares are irrigable.

No financial allocation has been made for the year 2004.

### **Progress of Mahaweli Systems.**

The progress of Irrigation Infrastructure facilities, Development and other special activities achieved by each RPM division during the year 2004 is described in tables 01,02 and 03.

## **A SECRETARIAT**

The Director of Secretariat reports to the Director General of MASL and is responsible for coordination of activities between the Director General and other Divisional Heads, RPMs and Directors /Coordinators of special projects. The Director of the Secretariat has to co-ordinate the meetings, Liaise with external agencies including the donors, maintain records and files and follow up on decisions made.

## **B PLANNING & MONITORING**

Planning & Monitoring unit is functioning under the Director General, and has assigned Macro planning, Monitoring and Evaluation, Operation and Maintenance of computer network/ website, Maintenance of Data Registry of Library and Audio Visual Section.

### **Planning**

The Unit has prepared a draft Five Year Plan for the Authority and circulated among the Heads of Divisions. Annual Action Plans of 2005 was compiled during the year. Compilation and updating of Annual Plans were continued. Draft Board Papers of the projects related to Moragahakanda, System 'B' Left Bank Balance Area Development, System 'B' Right Bank Development , System 'L' Development, Mahaweli Dairy Development Programme, Riverine Bamboo Project, Implementation of Kalawewa Basin Development Programme, Development of Ma-Oya and Yan Oya (MAYA), Mahaweli Pavithraganga Programme, Upper Water-shed Development in Mahaweli Catchments Area, Promotion of Alternative Incomer sources for Mahaweli Settlers and updating of Feasibility Report of System 'A' were compiled during the year.

#### **Monitoring & Evaluation.**

The unit continuously assessed monthly progress of all activities in the annual work programme in relation to the agreed schedules, use of inputs, infrastructure and services by the project beneficiaries. Monitoring activities are basically covered all Foreign Funded Projects, Domestic Funded projects, New Projects and maintenance and operation activities come under the purview of all RPM Offices, Units and Divisions. Several field visits were also carried out during the year for the purpose of verifying data accuracy.

The Unit publishes an Annual Statistical Bulletin covering Mahaweli Projects impacted areas in the fields of agriculture, land development, settlement, infrastructure and achieved more benefits. Compilation of the bulletin in respect of the year 2003 was completed during the year.

Preparation of various reports for various institutions including Donors, Department of National Planning, Ministry of Plan Implementation, Department of Census and Statistics, Central Bank of Sri Lanka, etc. were continued. In addition, periodical progress review meetings were organized.

## **Information Technology**

The Unit is responsible for operation and maintenance of the Mahaweli Web Site and the Computer Network for the Authority. Accordingly, a file server has been placed on the 6th floor and all floors of the MASL Head Office building, connected to the server via network cabling, 71 work stations of the building, including 16 stations of the Ministry are linked to the MASL Network and internet facility has been provided to all work stations through SLT leased line.

Computerization of financial activities of the Authority initiated during the year. Data analysis and formats for cash book and ledger pertaining to the Finance Section have been completed and handed over to the Finance Section for data entry.

Compilation of agricultural data base was continued during the year. Seasonal agricultural data related to the Mahaweli Projects since its inception has been compiled and linked to the Mahaweli website.

Maintenance of computer peripherals within the MASL building was commenced. The Unit attended to 120 faulty cases during the year. 12 computers were assembled for the Ministry of Mahaweli and River Basin Development and Rajarata Development during the year.

Several awareness programmes in internet/e-mail facilities were organized for the MASL staff.

## **Library.**

The PMU Library functions as the MASL data depository. The library possesses all feasibility, evaluation reports, various technical reports and other relevant technical books/reports related to the Mahaweli Programme. Maintenance and operation of the library continued during the year. With the amalgamation of sectional libraries that were

operated in various divisions, with the MASL library, updating of computer catalogue system was continued following International Library Standards (WINISYS).

### **Audio Visual**

Several multimedia bilingual presentations were developed on the progress of the Mahaweli Development Programme and presented to Her Excellency the President, the Parliament, the Ministry and to the MASL management. In addition, special presentations were presented on the subjects of the Moragahakanda Development , Mahaweli Dairy Development Programme, Village Tanks of Sri Lanka etc., Also, a large number of new and media web pages and photo galleries were developed and published in the Mahaweli web site.

### **C CENTRAL INTERNAL AUDIT**

Central Internal Audit operates as an independent unit among other operational activities and directly reports to the Director General on irregularities, inefficiencies and lapses with a view to making suggestions for improvement of internal control. During the year, CIA carried out 27 regular audit examinations, covering almost every sub section of the Organization. 04 special investigations and 07 adhoc examinations were carried out during the year 2004. In addition, 08 reports are being finalized.

## **CHAPTER -2**

### **TECHNICAL SERVICES DIVISION.**

The Executive Director (Technical Services) reports directly to the Director General ,and is responsible for,

1. The overall planning, designing and implementation of projects relating to consolidation, rehabilitation, upgrading and new developments.
2. The management of physical assets including up keeping, operation and maintenance of hydraulic infrastructure used for storage and conveyance of water for irrigation and power generation.

The major activities carried out by this Division under item 1 above during the year 2004 are as follows.

#### **Mahaweli Restructuring and Rehabilitation Project (MRRP) in system 'H'.**

MRRP Project came to a close by end of year 2003. Some outstanding payments for works, executed in system 'H' under canal rehabilitation and the release of retention money in respect of a few contracts remain to be settled. Discussions are under way with the Treasury Officials to obtain funds required for the balance payments.

#### **Mahaweli Consolidation Project (MCP) in system 'G' and Zone 2 of Mahaweli System 'C'.**

The rehabilitation of the irrigation canal system in system 'G' and Zone 2 of Mahaweli system 'C' were undertaken under the MCP financed by European Union. Although a bulk of the works under the project were completed by the end of year 2002 with the elapse of the loan, some payments still remain to be settled in respect of civil construction

works executed. The remaining payments held up due to lack of funds and also due to contractual disputes are being handled by the Resident Project Manager, Bakamuna. The Operation and maintenance of the canal system in system 'G' has been handed over to the Irrigation Department.

**Development works of system 'C' under Kuwait Fund for Arab Economic Development (KFAED)**

With the approval granted by KFAED to proceed with works for the utilization of the loan balance amounting to Rs 81 million, the following works were identified for execution.

1. Drainage improvement of Dehiattakandiya Township aiming to control pollution in Dolakanda Tank.
2. Construction of petty shops in Dehiattakandiya Township
3. Supply of electricity to 16 hamlets in System 'C'
4. Improvement of road network in Dehiattakandiya Township
5. Construction of an electric fence to minimize damages to settlers from wild elephants.

Works under the first four items are proceeding. As for the electric fence, this item is to be accomplished under three contracts awarded in the following manner.

1. Contract for the supply of timber posts awarded to Timber Corporation.

2. Contract for the supply of electric wires and other items through a supply contract under competitive bidding.
3. Contract for the erection of the fence to be a civil contract awarded under competitive bidding.

All works under the above three contracts are at different stages and were proceeding satisfactorily by the end of year 2004.

**Mahaweli System 'C' upgrading Project (MUP) in Zones 3-6 of system 'C' under Japan Bank for International co-operation (JBIC) Fund.**

All work identified in the original schedule for MUP were completed except the repairs to the canals and roads of the Ratkinda Seed Farm of which the work on the roads and fence are in progress and the tender process is on for the repairs to the canal system.

As there was considerable amount of savings on the loan at the completion of the original programme, the additional items have been taken up with the approval of the donor agency with an extended period for the project by two years.

1. Improvements to the spillway of Ulhitiya Reservoir, repairing of the sluices of Ulhitiya and Ratkinda reservoirs and Maduruoya link tunnel inlet and outlet.
2. Concrete lining of branch canal No.2 in the stretch from 21.100 km to 29.033 km.
3. Clearing the village tanks covered by vegetation.
4. Improving drainage in the system.

Tender procedures for items 1 and 2 have been commenced.

### **Development works of the Left Bank of Mahaweli System ‘B’ under Saudi Fund for Development (SFD).**

SFD responded positively to a request made by the MASL to reactivate the fund to utilize the remaining loan balance for development activities in system ‘B’ area and a mission from SFD visited in Sri Lanka. A memorandum of understanding (MOU) was signed between MASL and SFD to utilize the remaining loan balance worked out to be around Rs. 260 million and works programme was agreed upon. The agreed work programme included the following.

1. Construction of 06 water supply schemes to supply pipe borne water to settlers hardest hit due to lack of drinking water.
2. Metalling and tarring of Sinapura -Kandakadu road.
3. Metalling and tarring of Damminna-Alawakumbura -Maduruoya L.B, road.
4. Metalling and tarring of Manampitiya -Gangedeavalaya road.
5. Construction of internal roads in the hamlet for Pubudugama sub-families.
6. Improvements to Pimburattewa tank spill aiming at the arrest of downstream (d/s) erosion.
7. Improvements to Pimburattewa tank bund with provision of a toe filter.
8. Improvements to Randiyawewa spillway.



9. Irrigation infrastructure development (D-Canals & F- Canals) in Ransaratenna and Mahawelitenna aiming to develop 750 hec. (approximately) in both hamlets.

All works are proceeding at different stages by end of the year with contracts awarded to some and others in the tendering process.

**Dambulla - Bakamuna -Kalagahawela Road Project (DBKRP) under Japanese counterpart Funds (JCF).**

The construction works of the road in certain stretches came to a standstill due to land acquisition problems. However, the issues were settled towards the end of the year with an approval given by the Cabinet to follow special guidelines for land acquisition aiming the speeding up of the process.

During the year, Wildlife Conservation Department granted approval to improve the 9 km stretch of this road which fell within Minneriya - Giritale Nature Reserve also to the RDA standards, which they refused earlier.

A request made by CECB to offer this work to them on Design and Built basis at a negotiated price without going for tendering was accepted by MASL and approval of the Cabinet was obtained for the same. Works under major bridges in the road is handled by SD & CC, CECB and the contractors M/S Arangallage Construction and the works are proceeding satisfactorily. With land acquisition issues resolved, construction works could be expected to proceed smoothly during the year 2005 to enable the road to be completed substantially towards the end of year 2005.

**Development Work in System 'L'**

During the year, construction of Sapumalwewa aqueduct and drainage undercrossing, field canal culverts of Sapumalwewa and a trough in RB distributary canal at Weli-Ela was carried out.

22 Nos. of contracts for rehabilitation of canal system at Kiriibbanwewa and Ethawatunawewa were completed during this year under the North-East Irrigation and Agricultural Project (NEIAP). Improvements to the road from Welioya Army Headquarters to Parakramapura, repairs to quarters at Ethawatunawewa , repairs to teachers' quarters at Kiriibbanwewa school, repairs to teachers' quarters at Sampathnuwara school and balance work of building at Prathiba temple of Nikawewa were started towards the latter part of the year 2004 under the budgetary provision made by the office of the Chief Secretary, North Central Province, Anuradhapura. Also operation and maintenance of irrigation and other infrastructure were carried out during the year.

### **Moragahakanda Development Project**

The feasibility studies for Moragahakanda Project, carried out with funds from KFAED has already been completed. Department of National Planning has given the concurrence for the project proposal and has indicated that action to obtain donor funds for implementation will be initiated through Department of External Resources (DER). The feasibility report has already been forwarded to them for their scrutiny.

However, as there is a delay in the implementation of the project in the present form through donor funds, MASL has appointed a committee consisting of personnel from different disciplines within the organization to restudy the Report and explore way and means of implementing the Project at least in stages using GOSL funds.

### **Kaluganga Development Project**

A feasibility study in respect of harnessing inflow from the Kaluganga basin was carried out as an extension of the studies for Moragahakanda Development Project by Lahmeyer International and the Final Report was completed during the year. This report has been forwarded to the Department of National Planning for their scrutiny.

## **Management of Physical Assets**

Further, in regard to item (2) mentioned at the beginning of the chapter, the necessary directions and guidance in respect of design, approval of estimates and tender process connected with the Asset Management in Headworks as well as in Downstream infrastructure facilities were given as appropriate from this Division.

### **General**

During the year routine repair and maintenance work in respect of buildings, camp premises, irrigation structures, access roads and tanks including weeding, desilting, earthwork and gravelling etc, were carried out by the technical units of the respective RPM Offices under the overall supervision and assistance of the Technical Services Division.

The activities carried out and the progress achieved under each project during the year 2004 are described in chapter 07.

## **I Headworks, Operation and Maintenance**

Operation and maintenance of major Headworks are managed by the HAO & M Unit, which was formed in 1985. Polgolla, Bowatenna, Kotmale- Gamini Dissanayake Reservoir, Victoria, Randenigala/ Rantembe, Mapakada, Maduruoya and Udawalawe Projects including Ulhitiya, Rathkinda, Minipe, Transbasin canal come under the purview of this Unit and managed by the respective Engineers -in-charge (EIC).

The unit is mainly responsible for implementation of development activities in respect of dam safety programme that consists of surveillance (inspection), activities related to operation and maintenance, to ensure the dams and appurtenance structures are safe for continued operation. There are eight major dams and two Transbasin canals under its administration. They are,

- \* Kotmale dam inclusive of reservoir, spillway and gates.
- \* Pollgolla barrage and gates and tunnel intake.
- \* Bowatenna dam inclusive of reservoir, spillway and related structures.
- \* Victoria dam inclusive of reservoir, ,spillway and related structures.
- \* Randenigala dam inclusive of reservoir, spillway and related structures.
- \* Rantembe dam inclusive of reservoir, spillway and related structures .
- \* Minipe Transbasin canal and related structures.
- \* Ulhitiya Ratkinda dams inclusive of spillway gates and sluices.
- \* Maduruoya dam, reservoir and related structures.

Activities Implemented during the year under review.

- On-site examinations and dam behavior monitoring.
- Maintenance in accordance with operation and Maintenance Manuals.
- Repairs, rehabilitation and improvement works based on Annual Inspection Reports.
- Development of standing operating practices and emergency action plans
- Reservoir conservation.
- Water quality monitoring
- Planning for future upgrading and rehabilitation works

Actual progress of work pertaining to routine operations and maintenance activities achieved during the year under review.

- Regular maintenance in accordance with preventive maintenance schedule for all dams - Completed
- Collection of Instrumentation data and analysis - As Planned
- Water quality maintaining activities as scheduled -Completed
- Reservoir conservation activities and recovery of encroached areas - Being Continued

In addition to routine operation and maintenance activities, the following works were also implemented by the unit.

## **Kotmale**

- \* Purchasing of relays for spillway and bottom outlet - Completed
- \* Maintenance of water supply schemes - Completed

## **Polgolla**

- \* Disposal of waste and debris collected at the intake - Being continued
- \* Removal of unauthorized constructions within the reservation of the barrage - Being continued
- \* Servicing the panels, recalibration of indicators and replacing of relays in gate control system - Completed
- \* Fabrication of new grapping beam required to lift gates - Being attended
- \* 24 hour vigilance of operation of control gates of the dam and intake - Being continued

## **Bowatenna**

- \* Removal of water weeds of K-H canal and vegetation management of the bund - Completed
- \* Repair and repainting of steel works at irrigation intake - Completed

## **Victoria**

- \* Touch up painting of spillway gates - Completed
- \* Repair of nitrogen accumulators to correct the fault in the positioning the gate - Completed
- \* Compensation water valves replacement of seals - Completed
- \* Replacement of pressure gauges and hydraulic line repairs of low level outlet - Completed

### **Randenigala / Rantembe**

- \* Removal of loose rock part at Randenigala drainage gallery of berms - Completed
- \* Provision of spare parts for control system of the gates - Completed
- \* Repainting of spillway gates at Randenigala and Rantembe - Being continued
- \* Replacement of limit switches

### **Mapakada**

- \* Cleaning embankments of Minipe Transbasin canal - Completed
- \* Cleaning embankments of Loggaloya & Diyabana Oya dams - Being continued
- \* Maintenance of level crossings - Completed

### **Maduruoya**

- \* Cleaning of embankment - Completed
- \* Repair & repainting of steel works (RB Sluice) - Completed
- \* Trash rake operating machine repairs (RB Sluice) - Completed
- \* Repairs to link tunnel access road - Completed
- \* Overall repairs to NDK outlet gates, gate stem and spindle in hoisting mechanism - Being attended
- \* Temporary repairs to link tunnel gate - Completed

### **Minipe**

- \* Early warning system - Completed
- \* Repairs to concrete slabs at Minipe Transbasin canal - Completed

The Budgetary allocation and the actual expenditure incurred for the year 2004 are as follows;

Description	Budgetary Allocation (Rs. Million)	Allocation by MASL ( Rs. Million)	Actual Expenditure ( Rs. Million)
Capital	50.000	47.200	46.148
Recurrent	87.013	95.030	98.397

## **CHAPTER-3**

### **RIVER BASIN PLANNING AND MANAGEMENT DIVISION**

The Executive Director (River Basin Planning & Management) directly reports to the Director General of MASL and is responsible for overall operations of the Division. The Division is responsible for supervision of the projects and programmes implemented by the four units viz. River Basin Planning & Management Division, Kala Oya Basin Organization, Water Management Secretariat and Environment & Forest Conservation Unit.

I. Activities implemented by River Basin Planning & Management Division (RBP&MD) during 2004.

(a) River Basin Planning & Management Division consists of 3 units namely,

- I. Water Resources Planning Unit
- II. Land Use Planning Unit
- III. Environment & Natural Resource Planning Unit

The River Basin Planning & Management Division was engaged in the preparation of a comprehensive river basin plan for Kala Oya Basin.

Seven Consultancy assignments were in progress during the year 2004 under Water Resource Planning and Environment & Natural Resource Planning Unit at a total cost of Rs. 11.323 million. The balance work of five consultancy assignments will be continued in 2005 and the requirement of funds is estimated as Rs. 7.45 million to complete the assignments. Details of specifications achieved during the year are given under the activities carried out during 2004 by each unit.



No.	Activity	Contract Value	Physical Progress %	Financial Progress %	Paid up to end of 2004 (Rs.M)	Total Paid up to end 2004 (Rs.M)	Funds needed in 2005 (Rs. m)	Remarks
1	Ground water Assessment in KOB	2.18	80	30	0.6	0.436	1.5	On going
2	Socio Economic Profile in KOB	1.93	75	50.0	0.966	0.966	Nil	Completed
3	Development of water quality standards in KOB (SLSI)	0.15	89	10.1	0.015	0.015	0.133	On going
4	Bio-diversity & wetland issues & options for their sustainable management in KOB	5.29	80	20.0	1.058	1.058	4.232	On going
5	Water quality Assessment in KOB (UOC)	5.65	60	30.0	1.695	2.260	3.390	On going
6	Land use and Land ownership survey - KOB	0.26	100	86.9	0.226	0.226	0.034	On going
7	Developing a basin model for KOB US\$	20660 US\$	60	60.0	12396 US\$	1.24	Nil	Completed

#### **Other Activities Carried out in the year 2004**

- (1) During the latter part of the year 2004 an Interim Organization Structure for the Division was prepared and the MASL Board approved the same at its

meeting held on 10<sup>th</sup> December 2004. Accordingly, River Basin Planning & Management Division will comprise of 3 units headed by a Director namely,

- (a) Land Use Planning
- (b) Water Resources Planning
- (c) Environment & Natural Resource Planning

Information & Data Management Unit under the Executive Director -RBP&M which comprises of GIS, Resource Economy and Information Unit to fulfill the requirements of 3 main Divisions.

**(II) Preparation of Draft Proposal for Development of Ma Ya Basin**

During the year 2004, Draft Proposal for Development of 11 Basins comprising Ma Oya and adjacent small river basins and Yan Oya basin, covering an extent of 4163 hectares was initiated. Preparation of Development Plan will continue during year 2005 too.

**(III) Environmental Impact Assessment for Mini Hydropower Projects**

During the latter part of the year 2004, Environmental Impact Assessment for following 5 Mini Hydro Power Projects were commenced and the work will continue during year 2005 too.

- I. Gatambe Mini Hydro Power Project - On Mahaweli Ganga.
- II. Atabage Mini Hydro Power Project - On Mahaweli Ganga.
- III. Rajammana Mini Hydro Power Project - On Sudu Ganga.
- IV. Lenadora Mini Hydro Power Project - On Mahaweli Irrigation canals.
- V. Kandalama Mini Hydro Power Project - On Mahaweli Irrigation canals.

**Water Resource Planning Unit**

Following studies /reports have been completed by the Water Resource Planning Unit of River Basin Planning and Management Division during year 2004.

Item No.	Activities Implemented	Progress	
		Physical	Financial
1	Preparation of Five Year Plan for RBPM Division 2005 to 2010	Completed	Direct
2	Preparation of a database on resources for Preparation of a database on DSD resource profiles from 62 DS Divisions	Completed	Direct
3	Rainfall analysis on five rainfall stations, selected from each rainfall region in the Mahaweli Basin	Completed	Direct
4	Developing a Visual Basic Programme for compilation of data on small tank cascades systems in Kala Oya basin	Completed	Direct
5	Preparation of a flow network for the Mahaweli Basin.	In completed	Direct
6	Preparation of a data base for compiling information on important reservoirs in Mahaweli Basin.	Completed	Direct
7	Demarcating of hydrological boundaries of important sub basins in Mahaweli Basin.	Completed	Direct
8	. Completion of the report on Ground Water Assessment.	Completed	Direct
9	.Preparation of a summary report with recommendations on Upper Kotmale Power Generation Project.	Completed	Direct
10	.Preparation of a summary report on Ground Water Assessment study submitted by the consultant.	Completed	Direct
11	Compilation of reservoirs & small tanks in	Completed	Direct

	Mahaweli Basin.		
12	Compilation of a report for Comprehensive Plan for KOB (Surface & Ground water)	Completed	Direct
13	Literature review on Mahaweli Basin water Resources	Completed	Direct
14	Preparation of a summary report on work done by RBPM in KOB	Completed	Direct

#### Land Use Planning Unit

Following studies/ report have been completed by the Land Use Planning Unit of River Basin Planning & Management Division during the year 2004.

Item No	Activities Implemented	Progress	
		Physical	Financial
1.0	Preparation of Kala Oya River Basin Management Plan (Land Management Section)	Completed	Direct
1.1	Preparation of Land Management Policies (draft report)	Completed	Direct
1.2	Finalization of Soil Conservation policies (draft report)	Completed	Direct
1.3	Finalization of watershed Management Policies (draft report)	Completed	Direct
1.4	Preparation of Land Management Concept Paper	Completed	Direct
1.5	Identification of Pilot Projects and Programme	Completed	Direct
2.0	Preparation of Mahaweli River Basin Management Plan (Land Management Section)	Completed	Direct
2.1	Compilation of relevant	Completed	Direct

	documents, policies and regulations		
2.2	Demarcation of basin and sub basin boundary	Completed	Direct
2.3	Literature review and preliminary problem issues identification	Just started	Direct
2.4	Preparation of Ma Ya Basin Development Plan	Completed	Direct
2.5	Identification of Development Potential and constraints	Completed	Direct

### **Environmental and Natural Resource Unit**

Following activities were carried out by the Environment and Natural Resource Unit during the year 2004.

No	Activity	Contract Value	Physical Progres %	Financial Progress %	Total paid up to end 2004 (Rs. m)	Fund need in 2005 (Rs. m)
1	Development of water quality standards in KOB (SLS)	0.15	20	10.1	0.015	0.133
2	Bio-diversity & wetland issues & options for their sustainable management in KOB	5.29	90	34.99	1.851	3.438
3	Water quality Assessment KOB (UOC)(i)	5.65	90	65	3.672	*
4	Water quality monitoring KOB (UOC) (ii)	1.00	30	0	0	1.00

\* Consultancy assignment was terminated due to expiry of allocated time.

Special Activities carried out during the year 2004.

1. Co-ordination of work on Integrating wetland Eco-System values into River Basin Management in the KOB. (IUCN/ Pilot Project)

Total funds provided by the IUCN. (US\$ 38,700)

Physical Progress - 90%

Financial Progress - 90%

2. Co-ordination and facilitate the procedure for environmental approval of projects.
  - \* Project Approving Agency for 5 Mini Hydro Power Projects.
  - \* IEE (Initial Environmental Examination) of the new highway bridge at Manampitiya.
  - \* EIA (Environmental Impact Assessment) of Embilipitiya Hydro Power Project - Ace Power Project.
3. Activities related to Physical Planning Committee (PPC) of the MASL in all Mahaweli Systems.
4. Liaison with other agencies regarding preparation of environmental policy and regulations. e.g. Preparation of Natural Wetland Policy.
5. Involve in the preparation of action plan on Elephant Management Walawe Left Bank Upgrading Extension Project.

## **II. KALA OYA BASIN ORGANIZATION (KOBO)**

Activities/Programmes carried out by Kala Oya Basin Organization (KOBO) during the year 2004.

The Kala Oya Basin Organization is headed by a Basin Manager who is responsible to the Director General -MASL through Executive Director (River Basin Planning & Management)/ MASL.

Kala Oya Basin (KOB) is the 93<sup>rd</sup> basin in Sri Lanka and the Government of Sri Lanka has selected it as the pioneering basin to be developed under basin concept. The extent of the basin is about 2870 sq. km. It falls in three provinces namely, North Central, North Western and Central and come under four administrative

districts of Anuradhapura, Matale, Puttalam and Kurunegala. There are 20 Divisional Secretary Divisions (DSD) in the basin. The vision of Kala Oya Basin Organization (KOBO) is,

“ A prosperous society and healthy eco-system in the Kala Oya Basin(KOB)”

**The Objectives of the Kala Oya Basin Organization (KOBO) are,**

1. Ensure availability of water in quality and quantity wise for drinking, domestic and irrigation purposes throughout the year while maintaining much needed social and ecological balance, study the ground water potential areas, the sensitive areas and declarations.
2. Conserve water Resources and Natural Resources in the KOB
3. Ensure optimum productivity per unit of land & Water achieve higher level of Cropping intensity and water productivity, Introduce market oriented agriculture to the stakeholders.

In order to achieve these objectives, programmes were implemented through following components.

1. Water Resources
2. Natural Resources
3. Productivity Enhancement

It is important to highlight that the Kala Oya Basin Organization (KOBO) played a facilitating role and the state organizations such as Divisional Secretary Offices, Department of Agrarian Service, Department of Agriculture, Department of Irrigation and NGOs were responsible in implementing above programmes in the field. In carrying out its task by KOBO, was able to get the assistance of International Organizations such as Australian Natural Resources Project, Granary Project under Ministry of Agriculture and Irrigation and Regional Economic Advancement Project (REAP). During the year, KOBO spent total allocation of Rs. 6.5 million.

Following are the highlights of achievements during the year 2004.

1. Conducted awareness Programmes on River Basin Concept for District Secretaries, Divisional Secretaries, Deputy commissioners of Agrarian Services, Regional Directors of Irrigation and their staff.

2. Completed the studies on Ground water potential, Water Quality, Bio - Diversity and final reports are pending. Further studies are to be carried out based on their reports.
3. Training of Trainers (TOT) on bulk water concept and proper management practices for officers.
4. Introduce bulk water allocation and proper water management practices in selected areas.
5. Arrangements were made to purchase a current meter under Granary Project.
6. Four tanks were completed under cascade development Programme.
7. Arrangements were made to run a water management model with arbitrary data, as data such as river flows and rainfall is not sufficiently available for Kala Oya Basin. Collection of data and updating the model are in progress.
8. Demonstrations were carried out to promote rain water harvesting to meet the drinking water demand in selected locations.
9. Demonstrations were carried out to introduce micro irrigation techniques in selected water stress areas.
10. Demonstrations were carried out to promote run off harvesting tanks for irrigated agriculture, ground water recharging and soil and water conserving techniques in selected areas.
11. Demonstrations were carried out to promote low water consuming high value cash crops to uplift farmers' income.
12. Land use updating with GIS/GPS data base in Galgamuwa in Kurunegala District and Thambuttegama in Anuradhapura District.
13. Demarcation and identification of Mahagalkadawela Cascade Sub



water shed areas.

14. Updating Atlas of Kala Oya River Basin map series.
15. Pohoranwewa Contour mapping for proposed fisheries project at Dambulu Oya.
16. Tree planting programmes in riverine areas, reservations, wetland etc.,
17. Awareness programme for school children and stakeholders.
18. Demarcation of tank boundaries in Kandalama and Dambulu Oya reservoirs.
19. Conducted Quiz competitions among school children and broadcasted in Rajarata FM, Maha Illuppallama FM, Kotmale FM of Sri Lanka Broad Casting Corporation.

The progress of the components pertaining to Water Resources, Natural Resources and Productivity Enhancement during the year are shown in Table 07, 08 and 09.

### **III. WATER MANAGEMENT SECRETARIAT**

The functions of the Water Management Secretariat are associated with the Water Management Panel which is headed by Director General, MASL.

The Water Management Panel (WMP) is the policy making body within MASL for allocation of Mahaweli Waters to different irrigation schemes. It includes senior representatives of all government agencies concerned with the management of the Mahaweli Scheme. The principal function of the WMP is to govern the management of the water resources of the Mahaweli system to achieve optimum benefits. The WMP makes operational policy decisions and sets overall cultivation programs for the irrigated areas served by the Mahaweli system.

The Water Management Secretariat (WMS) provides information and recommendations to the WMP and is responsible for preparation of operation plan for Mahaweli system to achieve maximum benefits from both irrigation and power and subsequent coordination

and monitoring of the operations. For this purpose, operation plan referred to as Seasonal Operation plan is prepared for each cultivation season prior to the commencement of the Season.

### **Seasonal Operation Plan.**

The cropping data required for preparation of the Seasonal Operation Plan such as crop type, extent of each type, date and durations etc., are obtained from Irrigation Department and Resident Project Managers of Mahaweli Systems while Ceylon Electricity Board provides the projected energy and peak power demand and particulars of plant availability. The feasibility of the proposal is examined by WMS making use of the computer models. The hydrological data for a period of 30 years from 1970 are being used in examining the feasibility of the proposals. The Seasonal Operation Plan so prepared gives the details of projected reservoir releases, energy generation (both hydro and thermal), trans-basin diversions, irrigation diversions, tank storages, sluice issues etc., under both average and dry hydrological conditions.

### **Maha 2003/2004 (From 01<sup>st</sup> October 2003 to 31<sup>st</sup> March 2004)**

The cultivation extents during this season were 100% in almost all the irrigation schemes except Tissawewa. The extent cultivated under Tissawewa was 70%.

The storages of irrigation reservoirs at the beginning of Maha Season were not satisfactory. Therefore, the cultivation in most of the schemes except Walawe and H area was delayed till November. Dry weather condition prevailed throughout the season. Hence, the inflows to all reservoirs were much below the expected volumes.

As a result of the dry hydrological conditions prevailed during the season, water levels of all reservoirs were much below the expected under average conditions, at the end of the season.

Bowatenna reservoir received only 6% of the expected inflow and diversions from Bowatenna to Irrigation reservoirs and irrigation areas were mainly depended on the Polgolla diversions. Therefore, 92% of the inflow received at Polgolla was diverted to Ambanganga system to cater the irrigation requirements. However, the diversions to all irrigation systems were below the planned volumes due to low inflows.

Power generation by Mahaweli system during the season was 468 Gwh and by Kelani system was 773 Gwh. Thermal generation was 2667 Gwh.

**Yala 2004 (from 01<sup>st</sup> April 2004 to 30<sup>th</sup> September 2004)**

As a result of the drought prevailed during last Maha season, most of the reservoirs were having less storages than expected at the beginning of the season. Hence, the cultivation extents proposed for most of irrigation systems were below 100% except for Parakrama Samudraya, System 'B' and system 'C'.

The inflows to all reservoirs were low during this Yala season also due to continued dry weather conditions. Rantembe reservoir received only 17% of the inflow expected under average conditions while inflows to Randenigala reservoir was only 38% of the expected value under average condition. Kotmale and Polgolla received total inflow of 72% and 89% of the average values respectively during the season.

Reservoir storages at the end of Yala season in Mahaweli system were much below the expected values even under dry conditions. In Kelani system and in Samanalawewa end storages were above the average values expected under average condition.

The diversions from Bowatenna reservoir were mainly depended on Polgolla diversions during the season as inflows to Ambanganga system were very much less. Therefore, Polgolla diversions to Ambanganga system had to be increased by 38% above the planned volume utilizing the storage of Kotmale reservoir. However, due to the effect of drought during the previous Maha season and the dry weather prevailed during the season, diversions required for irrigation systems, H,D 1 and G were managed with much difficulties.

As inflows to Ambanganga system was very low, about 16 million cubic meters of water had to be released to Parakrama Samudraya from Bowatenna to save the crop and to provide drinking water requirement.

The drinking water requirement of Anuradhapura had to be supplied from Kalawewa through Right Bank Canal. Further, 5 million cubic meters of water was released to

Rajangana tank trough spill gates of Kalawewa to provide drinking water requirement there.

The water duties of most of the irrigation schemes during this season was better than long term averages.

Hydro Power generation in this season by Mahaweli System was 632 Gwh and the same by other systems was 853 Gwh.

**Maha 2004/2005 (From 01<sup>st</sup> October 2004 to 31<sup>st</sup> March 2005)**

The seasonal operation plan approved by the Water Panel proposed to cultivate 100% of the extent in all irrigation schemes which receive Mahaweli water. Cultivation in this Maha season was delayed in most of the irrigation schemes as a result of very low initial storages in the reservoirs. However, by the mid of November, cultivations in all schemes were in progress.

The rainfall received during first three months of this Maha season, in the irrigation areas and in the catchments of major reservoirs were more than the expected values under average conditions. Due to heavy rains experienced in late November and early December most of the irrigation reservoirs were spilling in mid December.

Mahaweli Hydropower generation during the year 2004 are as follows.

**Energy Generation (Gwh)**

Kotmale	339
Victoria	351
Randenigala	136
Rantembe	104
Ukuwela	179
Bowatenna	40
	-----
Total	1149
	-----

The total extents cultivated in Yala/Maha seasons are shown in table 10.

#### **IV. ENVIRONMENT AND FOREST CONSERVATION.**

The main objective of this unit is to promote the protection and scientific management of the Mahaweli Upper catchment area.

The major activities carried out in the Upper Mahaweli catchment area are; Soil and water conservation, Environmental Education, solid waste management, conservation farming, Bio-diversity Conservation, Geographical Information Systems and Remote Sensing based mapping and database preparation, land use planning, Sediment and river flow monitoring and Pavithra Ganga Programme.

##### **Hydrological Monitoring of the catchment Area**

Hydrological monitoring programme continued to assess the sediment yield and water yield at the gauging stations in the following catchments.

1. Nilambe Oya at Gurukelle
2. Upper Uma Oya at Welimada
3. Hulu Ganga at Narampanawa
4. Maha Oya at Maha Oya
5. Belihul Oya at Lemasooriyagama
6. Atabage Oya at Atabage

##### **River Discharge Monitoring Programme**

River discharge was continuously monitored using the installed automatic water level recorder at each of the sediment gauging stations.

##### **Land Use Planning**

Land Use Planning is a decision support activity which provides information and guidelines on sustainable land resources management. This section works in the field of land use mapping, provision of technical guidance on land resource assessment, environmental management activities, land use planning and watershed management.

**Land Use Planning (Internal)**

1. Updating of 10 Land use maps at scale 1:10,000 were completed in the Upper Mahaweli catchment area based on air photos and detailed maps.
2. Preparation of a Hand Book on Aerial Photo interpretation for land use mapping.
3. Preparation of a Booklet on cartography and Mapping for Land Use Planning.

Besides, 21 presentations on Land Use Mapping and Land Use Planning were conducted for Mahaweli Officers, school children and teachers and 25 programmes on Environmental Management Activities were conducted for Local Government Bodies (Pradeshiya Sabha).

**Geographical Information System**

During the year, GIS/RS section provided its services to fulfill the demands of the Unit. River Basin office - Thambuttegama and other divisions of the MASL, External Government Organizations, Post Graduate and Graduate Students, School Children/Teachers, Various projects through Natural Resources Management Services (Pvt) Ltd., as well as external customers. These services varied from simple map preparation to database development and capacity building programmes.

The principal activities of the section are,

1. Database Development.
2. Internal & External GIS/GPS/RS activities.
3. Capacity building.
4. Demonstration and awareness for students and visitors.

**Natural Resource Conservation**

In the year 2004 Natural Resource Conservation Section (NRCS) has been assigned following responsibilities.

1. Planning and implementation of Natural Resources Conservation Programmes related to Watershed Management in the Upper Mahaweli Catchment area (UMCA).

2. Implementation of soil and water conservation activities in the selected mini catchments in collaboration with local government institutions and other agencies in the Upper Mahaweli Catchment area (UMCA).
3. Maintenance of two training and demonstration farms at Doragala and Pallekele.

Except training and demonstration farms, all other activities were carried out under the Umbrella of Mahaweli Pavithra Ganga Programme.

### **Training and Demonstration Farms**

The main objective is to maintain two training and demonstration farms and to make awareness and train farmers, field officers, NGO and GO personnel for catchment conservation activities.

Activity	Target		Progress	
	Physical	Financial Rs. cts.	Physical	Financial Rs. cts
Continuation of Doragala & Demonstration Farm	Training 01	600,000.00	01	245,006.02
Continuation of Pallekele & Demonstration Farm	Training 01		01	360,439.29
				605,445.31
Material purchasing for Training and Demonstration Farm		100,000.00	Completed	93,925.09
Total		Rs 700, 000.00		Rs. 699,370.40

Plant production and plant free issues in Palkelele Training and Demonstration farm;

Plant	Balance stock from 2003	No. of Plants Produced in 2004	No. of plants issued in 2004	remaining plants at the end of 2004	Dead & Duscarded
Forest	37776	17505	36645	4731	2420
Bamboo			1475	727	
Medicinal			8349	934	
Total	37776	17505	46469	6392	2420

## **Environment Education**

### **Training Centres.**

Environment Forest Conservation Unit has three training centres in Polgolla, Palkelele and Doragala. They are equipped with all Audio-Visual facilities and other training needs. Palkelele training centre has accommodation facilities for 20 persons. There are demonstration on soil, water conservation and medicinal plants, Nursery and watershed related demonstration. Doragala training centre has demonstration on integrated farming and organic agriculture related activities.

### **Training Programme.**

Environment Education Section conducted Watershed Management Training and awareness programme for farmers, line agency staff, EFC unit staff, NGO's staff, school children, teachers, youths and under graduates.

In 2004, this section identified 12 villages in separate Mini catchments to develop as catchment conservation pilots. Problem identification, planning and implementation are being done by the community themselves in participatory approach while EFCU facilitates them.

### **School Programmes.**



**Objectives:**

1. To improve the knowledge and skills of school children on Natural Resource Management.
2. To make children active participation in environmental conservation activity.

Different methods were adopted to enhance the knowledge, skill and attitude of school children for better environmental conservation activity. Environment Education Section implemented a water quality monitoring programme in selected 10 points along the Mahaweli River. The Monitoring programme was conducted by the EFCU with the participation of school children. Technical advice and assistance were given by the Institute of Fundamental Studies (IFS) at Hantana.

**Distribution of Publications.**

Following publications have been distributed by the section to enhance the knowledge and awareness of the general public, extension officers, school teachers, children and NGO's members on natural resource management.

Main Activity	Sub Activity	N. of Copies Distributed
Distribution of Publications and materials	Parisara Kreeda	99
	Parisarayata Bindak	732
	Seattle's Declaration	966
	Man-Elephant Conflict	391
	Poster	
	Pavithra Ganga	214
	Fire Prevention	595
	Jalaya Jeewaye Ulpatha(Senior Level)	224
	Jalaya Jeewaye Ulpatha	224

	(Junior Level)	
	Heta Mata Baradena Lokaya Meyada?	224
	Suwadena Thuruliya	224
	Re-cycling	184
	Man-Elephant Conflict	237

## **MAHAWELI PAVITHRA GANGA PROGRAMME**

“Mahaweli Pavithra Ganga Programme” is a concept in which the theme is to keep Mahaweli river and reservoirs clean in a sustainable manner. This programme is implemented based on Local Government Institutions which encompass Mahaweli River and Reservoirs from Hatton to Victoria dam in the Upper Mahaweli Catchment Area. This programme was implemented as an integrated programme with the coordination of 23 Local Government Institutions.

Scope of the Pavithra Ganga (PVG) is to address the following watershed Management Issues.

Main Issues;

- Improper disposal /dumping of solid waste.
- Improper drainage of Liquid Waste from Hospitals, Industries, Schools and Urban places.
- Improper and illegal sand mining.
- Encroachment of reservation lands at river and reservoirs.
- Catchment erosion, improper land use, vegetation burning etc.
- Lack of awareness and ignorance of the community.

All these issues directly or indirectly affect the health of the people of the surrounding areas, downstream irrigation and hydropower generation.

Under this programme, it was able to identify major environmental issues such as sedimentation in the reservoirs, improper garbage dumping, and encroachment of river bank reservations etc.

**Goal**

The goal of the programme is to keep sufficient quantity of water throughout the year with good quality in Mahaweli river and reservoirs.

**Riverine Bamboo Project**

Objective of the project is to re-forest river banks with bamboo through bio-technical propagating to minimize bulk erosion at the Mahaweli riverine and tributaries.

Project activities include setting up of a laboratory, commencement of a nursery, planting and organizing maintenance programmes with villagers.

An amount of Rs.150,000/- was allocated for refurbishing and conversion of a part of the RPM's office building for the laboratory during the year.

During the year a project proposal was submitted seeking approval of the Department of External Resources for financial assistance to complete the remaining project components. The financial allocation expected for the implementation of remaining project activities would be Rs. 10 million.

A Project Director was appointed to this project from 2<sup>nd</sup> February, 2004 and served till November, 2004. During this period she was responsible for the activities of the project and in addition, she trained a Technician attached to the project on in-vitro propagation of Bamboo at IFS in Kandy.

The budgetary allocation and the expenditure incurred for the year 2004 in respect of the Unit are shown below.

Description	Budget 2004 (Rs)	Expenditure 2004 (Rs)	Variation (Rs)	% of Exp. to total budget	% to total Budget
Total Recurrent	21,135,800.00	17,663,859.00	3,471,941.00	1,770.76	100.96
Rehabilitation &	2,500,000.00	2,487,449.00	12,551.00	300.02	11.70

Improvement of Capital assets					
Environmental education	350,083.00				
Natural resource Conservation	701,129.00				
GIS/Catchment /Sediment Monitoring Programme	224,400.00				
*Riverine Bamboo Project	1,200,000.00	962,584.00			

\*An additional amount of Rs. 200,000/- was allocated for this project at the end of November 2004

The Physical and Financial progress of Hydrological, GIS, Environment Education and Mahaweli Pavithra Ganga Programme (including catchment conservation and training & awareness) are shown in table 11,12,13 and 14.

## **Chapter-4**

### **NARBO Activities.**

One participants from Mahaweli Authority of Sri Lanka (MASL) and Network Coordinator for South Asia Network of River Basin Organizations (SASNET-RBO) were invited by the ADB to attend to 1<sup>st</sup> General Meeting of Network of Asia River Basin Organizations (NARBO) which was held 24-26 February, 2004 held in Batu, Malang , Indonesia. Mr . P T Senaratne, Director General of MASL and Mr Sudharma Elakanda , Network Coordinantor of SASNET-RBO attended to this general meeting and actively participated for all the sessions. SASNET-RBO was initiated in the year 2002 , when GWP-SA identified Sri Lanka as focal point for River Basin Management in the region and MASL as the Driver Agency . In this meeting Director General of MASL was offered a Vice –Chairpersonship of NARBO for two year period. Both Mr P T Senaratne, Director General of MASL and Mr Sudharama Elakanda , Network Coordinator of SASNET-RBO signed the NARBO charter on behalf of two institutions respectively. Although SASNET-RBO is not a Government Institution , but it is now housed in the MASL Head Quarters. Very limited funding available for SASNET-RBO and it is channeled through GWP-SA. MASL is supporting to network by providing office space and employing professional staff and giving some ICT equipment etc. In the General meeting MASL agreed to give Mahaweli RBO as one of the Pilot River Basins to study under NARBO activities during next few years. After the Government change in April, 2004 Dr M U A Tennakoon assumed duties as the new Director General of MASL. On the Invitation of NARBO Secretariat, Dr Tennakoon, new Director General of MASL attended the Scoping Meeting held in Batu , Malang , Indonesia in September, 2004. Similarly in November , 2004 a Bench Marking meeting was held in the same venue in Indonesia and Both Dr Tennalkoon and Mr Elakanda attended and done very effective contribution for the success of the objective of workshop.

First training Program of NARBO was held in Thailand and second NARBO training was held in Sri Lanka 24-29, April 2005 in Negombo, Sri Lanka.

During this 18 months experience, NARBO learned several lessons and it was noticed in the NARBO charter there is no provision to accommodate new person to any cardre posts of NARBO in the case of they left the organization. This was practically happened for the Vice Chair Position. Next NARBO meting on 2-3, September 2005 will address this issue and do some amendments to the existing Charter.