ADMINISTRATION REPORT

2022

IRRIGATION DEPARTMENT

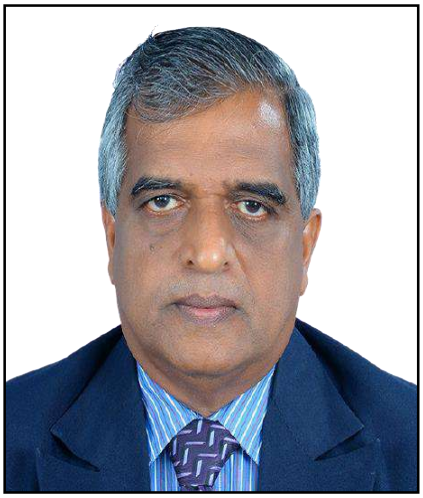
ADMINISTRATION REPORT
2022

Part I

PREPARED BY

PROGRAMME MANAGEMENT BRANCH

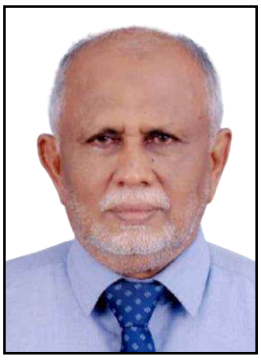
DIRECTOR GENERAL OF IRRIGATION



Eng. K.D. Nihal Siriwardana

Additional Directors General of Irrigation / Chief Financial Officer / Additional Director General (Administration)

Eng. (Ms) I.D.S. Samarasuriya
Addl. DGI
(Investigation, Planning & Design)



Eng. H.M. Junaid
Addl. DGI
(System Management)

Eng. (Ms) T.J. Meegastenna
Addl. DGI
(Construction & Development)

Eng. (Ms) D.P. Thrimahavithana
Addl. DGI
(Riverine Management)

Ms. P.P.K. Abeysirigunawardena
Addl. DG
(Administration)

Ms. U.A.C. Priyanthi
CFO
(Chief Financial Officer)

List of Directorate 2022
Sri Lanka Engineering Service

No	Name	Designation
1	Eng. (Ms) I.D.S. Samarasuriya	Addl. Director General of Irrigation (Investigation, Planning & Design)
2	Eng. H.M. Junaid	Addl. Director General of Irrigation (System Management)
3	Eng. (Ms) T.J. Meegastenna	Addl. Director General of Irrigation (Construction & Development)
4	Eng. (Ms) D.P. Thrimahavithana	Addl. Director General of Irrigation (Riverine Management)
5	Eng. (Ms) D. K. M. Galappaththi	Director of Irrigation (Planning & Designs) – Uva & Eastern Zone
6	Eng. S.M.B.M. Azhar	Director of Irrigation (Works General & Building Services)
7	Eng. B.A.K. Chandralatha	Director of Irrigation (Research Support, Process Improvement & Training)
8	Eng. G. Saravanabavan	Director of Irrigation (Contract & Procurement) up to 14.05.2022
9	Eng. K.K.A. Piyasena	Director of Irrigation (Hydraulics) up to 21.03.2022
10	Eng. M.W.P. De Silva	Director of Irrigation (Engineering Geology) up to 15.03.2022
11	Eng. A.L.M. Casim	Director of Irrigation (Regional Development) up to 19.02.2022
12	Eng. (Ms) P.M. Jayadeera	Director of Irrigation (Colombo) up to 27.03.2022 Director of Irrigation (Regional Development) from 28.03.2022
13	Eng. (Ms) D.N.H.L. Madawalagama	Director of Irrigation (Engineering Material)
14	Eng. M.S.U. Perera	Director of Irrigation (Project Planning & Design)
15	Eng. W.K.S. Wickramapala	Director of Irrigation (Asset Management)
16	Eng. L.L. Silva	Director of Irrigation (ITI – Galgamuwa)
17	Eng. S.K. Hewagama	Director of Irrigation (Major Construction)
18	Eng. D. Abesiriwardana	Director of Irrigation (Water Management)
19	Eng. (Ms) S.M.M.R.K. Samarakoon	Director of Irrigation (Programme Management)
20	Eng. (Ms) W.C.N. Wickramasinghe	Director of Irrigation (Water Resource Planning)
21	Eng. S.P.C. Sugeeshwara	Director of Irrigation (Hydrology)
22	Eng. (Ms) T. Batagoda	Director of Irrigation (Planning & Designs) – Central Zone
23	Eng. Thiruvarudchelvan	Director of Irrigation (Planning & Designs) – North & North Central

24	Eng. L.G.A. Edirisinghe	Director of Irrigation (ICT & GIS)
25	Eng. (Ms) I.S. Wickramasinghe	Director of Irrigation (EST / I & PE)
26	Eng. (Ms) A.N.P. De Zoysa	Director of Irrigation (Riverine Management) up to 03.06.2022 Director of Irrigation (Contract & Procurement) from 06.06.2022
27	Eng. (Ms) M.P. Bamunawita	Director of Irrigation (Drainage & Flood Systems)
28	Eng. A.T.L.C. Samarasinghe	Director of Irrigation (Engineering Geology) from 24.03.2022
29	Eng. H.V.C. Mendis	Director of Irrigation (Hydraulics) from 15.03.2022
30	Eng. J.D. Amarasekara	Director of Irrigation (Riverine Management) from 01.06.2022
31	Eng. S.P.H. Gamage	Director of Irrigation (Ampara)
32	Eng. S.D. Mediwaka	Director of Irrigation (Anuradhapura)
33	Eng. B.A.M.S. Beligaswaththa	Director of Irrigation (Badulla)
34	Eng. N. Nagarathnam	Director of Irrigation (Batticaloa)
35	Eng. P.L.N. Puranegedara	Director of Irrigation (Monaragala) up to 22.03.2022 Director of Irrigation (Colombo) from 23.03.2022
36	Eng. L.S. Sooriyabandara	Director of Irrigation (Galle)
37	Eng. D.M.A. Deheragoda	Director of Irrigation (Hambantota)
38	Eng. (Ms) K.A.D.K. Dheera	Director of Irrigation (Kandy)
39	Eng. K.B.V.Indrapala	Director of Irrigation (Kurunegala) up to 29.03.2022
40	Eng. H.A.J. De Silva	Director of Irrigation (Kurunegala) from 21.03.2022
41	Eng. N. Yogarajah	Director of Irrigation (Mannar)
42	Eng. H.R.W.J. Prematunga	Director of Irrigation (Monaragala) from 21.03.2022
43	Eng. L.M.W. Rathnasiri	Director of Irrigation (Polonnaruwa)
44	Eng. K. Subramaniyam	Director of Irrigation (Puttalam)
45	Eng. A.K.A. Jabbar	Director of Irrigation (Trincomalee)
46	Eng. A.J.L.G. Fernando	Director Mechanical (HQ & S) up to 20.03.2022
47	Eng. H.K.D.W.T. Gajanayake	Director Mechanical (HQ & S) from 07.04.2022
48	Eng. D.P.N. Wijesiri	Director Mechanical (Central)
49	Eng. K.M.M. Marzook	Director Mechanical (North Central)

Sri Lanka Administrative Service

No	Name	Designation
1	Ms. P. P. K. Abesirigunawardana	Additional Director General (Administration)
2	Mr. P. Thayananathan	Director (Administration) up to 04.03.2022
3	Ms. N.W.G.D. Sujeewani	Director (Administration)
4	Mr. M.B.L. Rahuman	Director (Administration) from 03.03.2022

Sri Lanka Accountants' Service

No	Name	Designation
1	Ms. U.A.C. Priyanthi	Chief Financial Officer
2	Ms. R.M. Jayanthi	Chief Accountant (Accounts & Estimates) from 10.03.2022 to 07.09.2022 Chief Accountant (Finance) from 08.09.2022
3	Ms. U.A.D. Priyadarshani	Chief Accountant (Finance) up to 08.09.2022
4	Mr. K.A.S.S. Piyanatha	Chief Internal Auditor
5	Mr. G.M.L. Chandima	Chief Accountant (Accounts & Estimates) from 08.09.2022

Sri Lanka Scientific Service

No	Name	Designation
1	Ms. G.P.R. Silva	Director (Land Use)

Table of Content

1 Overview of the Department

1.1 Introduction

Irrigation Department (ID) is the major organization which is responsible for water resources development in Sri Lanka. ID is the only department which carries out planning, designing and construction of water resources related infrastructure without having foreign or any other outside consultations. The Department is currently providing irrigation facilities for 323,786 ha of land for cultivation and has planned to increase the irrigable area to 350,000 ha by year 2030. Also, it provides technical services for all water-related stakeholders such as Mahaweli Authority, National Water Supply & Drainage Board, Agriculture Department, Department of Agrarian Development, Forest Department, Local Governments etc. The Irrigation Department has a huge database maintained over more than 100 years, enabling it to execute water resources development works within the department's own capacity.

The Irrigation Department efficiently handles 80 Major Reservoirs, 161 Medium Reservoirs, 113 Anicut Schemes, 8 Lift Irrigation Schemes, and 25 Drainage Schemes located around the country through a network of 14 Regional Offices headed by Directors and 52 Divisional Offices headed by Divisional Irrigation Engineers. 03 Zonal Director's Offices have also been established to provide services for maintenance and development works. To execute new development projects, 06 Project Director's Offices, 01 Deputy Project Director's Office, 03 Chief Resident Engineer's Offices and one Residential Engineer's office have been established.

In order to increase the effectiveness of the service provided and to have close communication with the major stakeholders, 219 Field Unit Offices have been established as at the end of 2022. This system enables us to attend to the issues of farmers' immediate requirements related to water distribution, and immediate maintenance & repairs of irrigation schemes.

The Galgamuwa Irrigation Training Institute caters for the training of newly recruited Engineering Assistants and in-service training programs for all staff categories.

During the 2021/22 Maha season and 2022 Yala season 287,680 ha and 258,962 ha of irrigable extent were cultivated respectively with irrigation water from the major and medium schemes under the purview of the Irrigation Department. The cultivation performance of major irrigation schemes during Maha 2021/22 was 92% and during Yala it was 82% respectively.

The total allocation received for the capital and recurrent votes in the year 2022 was Rs. 9,662 million and the expenditure for the capital and recurrent votes during the year 2022 was Rs. 8,691.34 million.

1.2 Vision

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

1.3 Mission

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

1.4 Objectives

The main objectives of the Irrigation Department are as follows.

1. Development of land and water resources for irrigated agriculture, hydro power, flood control, domestic usage, industrial usage, and aquaculture development, while assuring environmental sustainability.
2. Provision of lift irrigation, irrigation drainage and salinity extrusion facilities for cultivable lands in irrigation and drainage projects.
3. Provision of drinking water, flood protection and drainage facilities to lands affected by floods.
4. Alleviation of poverty in the rural farming community by increasing their farm income and raising their standard of living.
5. Management of water resources economically for sustainable agriculture and other uses.
6. Productivity enhancement of land and water in major/medium/inter-provincial minor irrigation schemes.
7. Integrated water resources management and participatory management in major / medium, inter provincial minor and micro irrigation systems.
8. Integrated water resources management and participatory management in river basins assigned to Irrigation Department.

1.5 Functions of the Irrigation Department

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

1. Preparation of a Master Plan for the development of the different river basins for the optimum utilization of land and water resources, giving priority to environmental factors.

2. Project formulation and detailed designs of irrigation, hydro-power, flood control, and reclamation projects.

3. Construction of irrigation and settlement projects for the conservation, diversion and distribution of water under gravity and lift Irrigation of new and existing land for cultivation by farmers for enhanced food crop production and to upgrade their living conditions.

4. Construction of drainage, flood protection, and salt water extrusion projects for the protection of cultivable land to enable the cultivation of such lands with minimized risk.

5. Providing drainage and flood protection facilities to minimize or mitigate the damage caused by floods.

6. Operation, maintenance, improvements, rehabilitation and water management of medium and major irrigation schemes, drainage and flood protection schemes, and saltwater extrusion schemes for optimum productivity, ensuring the participation of beneficiaries. Catering of water for inter-sectorial use, domestic, industrial use and environmental requirements. Construction and maintenance of conservation reservoirs.

7. Maintaining and upgrading the water infrastructure, including dams for sustainable water supply to agriculture and domestic purposes.

8. Carry out research in Hydraulics, Hydrology, Engineering Geology, Geographic Information System (GIS), Engineering Materials and Land Use sections as applied to Water Resources Development Projects.

9. Human resources development for optimum utilization of human resources.

10. Operation and maintain of financial management systems, accounting, reporting, and auditing systems of the Irrigation Department in accordance with the financial regulations of the Government of Sri Lanka.

11. Providing consultancy services to Government Departments, statutory boards/corporations, public and private institutions and individuals, in the fields of Water Resources Development, Geo-technical Engineering, Quality Assurance and Control of Earthwork and Concrete, Hydraulic Model Testing and Land Use Planning.

12. Issuing Irrigation Department clearance, whenever necessary for projects handled by other government institutes and the private sector, such as highways, Mini hydro power, industrial and land filling, hotel resorts and drinking water projects, etc.

1.6 Sustainable Development Goals (SDGs)

1.6.1 Performance of the achieving Sustainable Development Goals (SDGs)

Table 1-1: Performance of the achieving Sustainable Development Goals (SDGs)

Goal / Objective	Targets	Indicators of the achievement	Progress of the Achievement up to 31.12.2022
Increased surface water storage capacity	1000 MCM by 2030	Increasing storage	26%
Increased Cropping Intensity	1.8 by 2030	Annual cropping intensity	99%
Increased Irrigable Area	150,000 acres by 2030	Extent of cultivation	28%
Reduced Annual Flood	By 50%	Annual flood damage	No flood occurs during 2022

1.6.2 Achievements of the Sustainable Development Goals

- Storage capacity was increased by 216.7 MCM from 2018
- Irrigation facilities were provided for 17,217 ha new and existing land from 2018
- Annual cropping intensity was 1.78
- No flood occurs during the year 2022

2 Organization & Administration

The Director General of Irrigation (DGI) is the head of the department and there are four Additional Directors General of Irrigation In-charges of technical functions, one additional Director General In-charge of administration and a Chief Financial Officer to assist the DGI. Directors who are managing the Branches, Zones and Regions are functioning at the next managerial level. Key posts have been created for middle level Technical Officers to improve the efficiency of the system.

The main functions of the department are covered by the following Sub-Departments

1. Investigation, Planning and Design (I, P & D)
2. Construction and Development (C & D)
3. System Management (SM)
4. Riverine Management (RM)
5. Administration (Admin.)
6. Finance (F)

In addition, the following supporting functions are carried out separately under the direct supervision of the DGI.

1. Programme Management
2. Contract and Procurement
3. Internal Audit
4. Training
5. Works General & Building Services
6. Mechanical Branch
7. Irrigation Training Institute - Galgamuwa

There is a small Secretariat supporting DGI to manage the records and coordinate with the staff. This Secretariat manages confidential files and correspondence related with the Director's meeting in which DGI participates as an ex-officio member.

Except Jaffna, Kilinochchi and Mullativu Districts the whole Island has been divided into 14 Regions and managed by Directors of Irrigation for each Region. Fiftytwo Divisional Irrigation Engineer's Divisions cover the entire island in maintaining all major & medium and inter provincial minor irrigation schemes and rehabilitation activities. There are 219 numbers of unit offices that have been established to increase participatory management role at grass root level to serve the farming community.

Three Zonal Director Offices covering all parts of the island are set up to carry out planning and designing and to frame the new proposals including preparation of feasibility reports.

To manage the ongoing projects, 03 Project Directors have been appointed to Morana, Kumbukkan oya and Mundeni Aru River Basin Development Project under departmental votes and 03 Project Directors have been appointed to Lower Malwathuoya Project, Thalpitigala Projects and Basnagoda Project under ministry votes. In addition, 01 Deputy Project Director has been appointed to Uma Oya Downstream Development Project and 03 Chief Resident Engineers have been appointed to

Ellewewa, Kudawillachchiya and Himbiliyakada Waththegedara Irrigation Infrastructure Development Project. Also, 01 Residential Engineer has been appointed to Yan Oya project. On 25th of July 2022, Project Director of Morana handed over the project to DI (Badulla).

Irrigation Training Institute at Galgamuwa conducts pre-service and in-service training for the department staff as well as providing training for other agencies. The Irrigation Training Institute is headed by a Director.

The Mechanical section plays a vital role in the Irrigation Department. Three Mechanical Directors are supervising the Mechanical section under "North Central Zone", "Central Zone", and "Head Quarters & Southern Zone". Also, three Mechanical Chief Engineers are supervising all Workshops around the country under the above mentioned zones.

There are five Main Mechanical Workshops at Rathmalana, Ampara, Rambewa, Halpathota and Lunugamwehera. In addition, there are nine Regional Mechanical Workshops at Kanthale, Minneriya, Batticaloa, Kurunegala, Puttalam, Mapakada, Kandy, Monaragala, and Head Office headed by Mechanical Engineers who are being supervised by Chief Mechanical Engineers in related Zone. The workshops have been established to attend mechanical work in Irrigation hydro-mechanical structures as well as all machinery and vehicles attached to the Department.

2.1 Organizational Chart

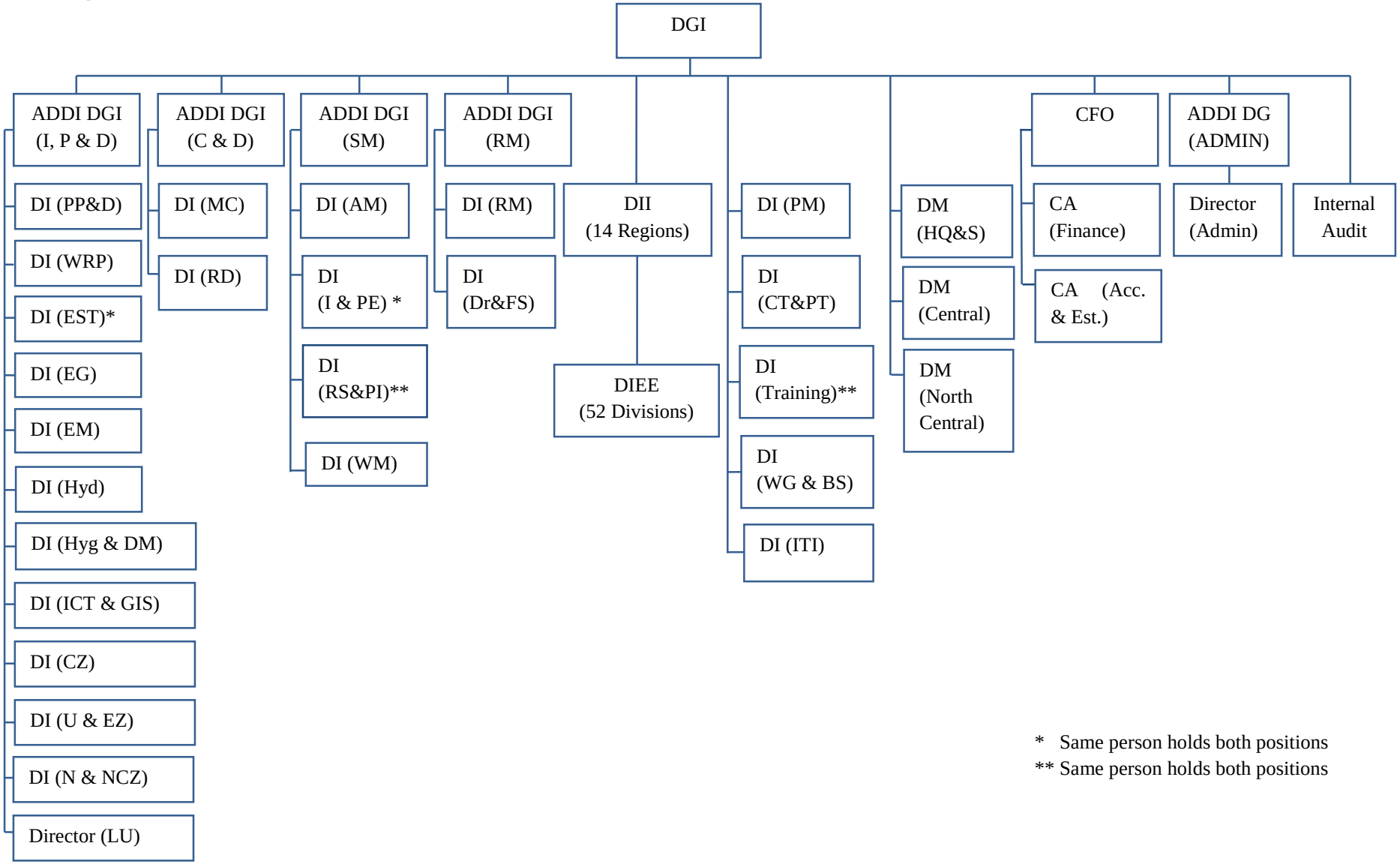


Table 2-1: Abbreviations for the Organization Chart

Abbreviation	Description
DGI	Director General of Irrigation
ADDI DGI (I,P&D)	Additional Director General of Irrigation (Investigation, Planning & Design)
ADDI GDI (SM)	Additional Director General of Irrigation (System Management)
ADDI DGI (C&D)	Additional Director General of Irrigation (Construction & Development)
ADDI DGI (RM)	Additional Director General of Irrigation (Riverine Management)
CFO	Chief Financial Officer
ADDI DG (Admin)	Additional Director General (Administration)
CIA	Chief Internal Auditor
DI (AM)	Director of Irrigation (Assets Management)
DI (I & PE)	Director of Irrigation (Irrigation & Productivity Enhancement)
DI (RS & PI)	Director of Irrigation (Research Support & Process Improvement)
DI (WM)	Director of Irrigation (Water Management)
DI (RM)	Director of Irrigation (Riverine Management)
DI (Dr & FS)	Director of Irrigation (Drainage & Flood System)
DI (PP & D)	Director of Irrigation (Project Planning & Designs)
DI (WRP)	Director of Irrigation (Water Resources Planning)
DI (EST)	Director of Irrigation (Engineering, Scientific and Technological service)
DI (EG)	Director of Irrigation (Engineering Geology)
DI (EM)	Director of Irrigation (Engineering Materials)
DI (Hyg & DM)	Director of Irrigation (Hydrology & Disaster Management)
DI (Hyd)	Director of Irrigation (Hydraulics)
DI (ICT & GIS)	Director of Irrigation (Information Communication Technology & Geo Informatics System)
DI (CZ)	Director of Irrigation (Central Zone)
DI (U&EZ)	Director of Irrigation (Uva & Eastern Zone)
DI (N & NCZ)	Director of Irrigation (Northern & North Central Zone)
DI (ENV)	Director of Irrigation (Environmental Studies)
Director (LU)	Director (Land Use)
DI (MC)	Director of Irrigation (Major Construction)
DI (RD)	Director of Irrigation (Regional Development)
DIE	Divisional Irrigation Engineer
DI (PM)	Director of Irrigation (Programme Management)
DI (CT & PT)	Director of Irrigation (Contract & Procurement)
DI (Training)	Director of Irrigation (Training)
DI (WG & BS)	Director of Irrigation (Works General & Building Services)
ITI	Irrigation Training Institute - Galgamuwa
Director (Admin)	Director (Administration)
DM (HQ & S)	Director Mechanical (Head Quarters & Southern zone)
DM (Central)	Director Mechanical (Central zone)
DM (North Central)	Director Mechanical (North Central Zone)
DI (Region)	Director of Irrigation (Region)

3 Overall Programme

The Sub Departments and other supporting branches carried out the functions of the department during the year 2022. These activities can be broadly categorized as follows.

1. Feasibility studies of major and medium irrigation schemes.
2. Activities of specialized divisions.
3. Major, medium construction projects under foreign funds.
4. Major, medium construction projects under consolidated funds.
5. Rehabilitation and Modernization of major and medium existing schemes
6. Operation and maintenance of major, medium irrigation schemes and irrigation system management.
7. Related Mechanical Engineering works and maintenance of machinery and vehicles of the Department.
8. Work done by the department for other organizations.

Under consolidated funds, the following items were approved in the budget for Construction and Rehabilitation of Major and Medium Irrigation Schemes. Some of these schemes are new works, whereas some are improvements or rehabilitation of existing irrigation works.

The following projects were implemented by the respective officers given in the table under the supervision of the Major Constructions Branch, Regional Development Branch, Asset Management Branch and Drainage & Flood Systems Branch.

3.1 Major and Medium Irrigation Projects executed under consolidated funds

Table 3-1: Major Medium Projects under consolidated funds

Project	Managed By
Deduru Oya Reservoir	DI (Kurunegala) / DI (Puttlam)
Yan Oya Project	RE (Yan Oya)
Lower Uva Project	DI (Monaragala)
Mahagona Wewa Project	DI (Kandy)
Morana Reservoir	PD (Morana) / DI (Badulla)
Ellawewa Reservoir	CRE (Ellawewa)
Kumbukkan oya Reservoir	PD (Kumbukkan oya)
Rugam Kithul Reservoir (Mundeni Aru River Basin Development Project)	PD (Mundeni Aru River Basin Development Project)
Polannaruwa District Irrigation Development Project	DI (Polannaruwa)
Accelerated Irrigation Development in Monaragala District (Wellassa Navodaya)	DI (Monaragala)

Project	Managed By
Kelani River Bund Protection	DI (Colombo)
Development and Improvement of Godigamuwa tank in Matale District	DI (Kandy)
Flood Mitigation Projects in Kelani Ganga, Mundeniaru Basin, Kalunganga basin, Nilwala Ganga basin & Ginganga	DI (Batticaloa) / DI (Colombo) / DI (Galle)
Rehabilitation of Kudawilachchiya Reservoir	CRE (Kudawilachciya)
Rehabilitation of Dematagalla Tank	DI (Anuradhapura)
Uma Oya DownStream Development Project	DPD (Uma Oya)
Himbiliyakada Waththegedara Irrigation Infrastructure Development Project	CRE (Himbiliyakada)
Wilakandiya Reservoir	DI (Badulla)
Augmentation of Mahagalagamuwa Tank	DI (Kurunegala)
Construction of Pethiyagoda Pump House	DI (Colombo)

3.2 Major Projects under foreign funds

Table 3-2: Major projects under foreign funds

Project	Managed By
World Bank Funded Integrated Watershed & Water Resources Management Project (IWWRMP)	PD (IWWRMP)

3.3 Summary of the Expenditures of the Department Budget

Table 3-3: Summary of the Expenditures of the Department during 2022

Name of Project	Revised Allocation for 2022 (Rs. '000)	Cumulative expenditure up to end of December 2022 (Rs. '000)	Progress Against Allocation 2022 (%)
Recurrent Expenditure			
Project 1 Administration and Establishment service	801,806.60	775,231.31	96.69
Project 2 Administration & Maintenance of Irrigation Schemes	2,793,693.40	2,778,740.19	99.47
Total Recurrent	**3,595,500.00**	**3,553,971.49**	**98.84**
Capital Expenditure			
Project 1 Administration and Establishment service	40,500.00	37,911.53	93.61
Project 2 Administration & Maintenance of Irrigation Schemes	1,376,000.00	1,332,284.04	96.82
Project 3 Major Irrigation Schemes	4,555,000.00	3,713,722.85	81.53
Project 4 Medium Irrigation Schemes	95,000.00	53,449.02	56.26
Total Capital	**6,066,500.00**	**5,137,367.44**	**84.68**
Total of Recurrent & Capital	**9,662,000.00**	**8,691,338.93**	**89.95**

3.4 Other Works

Table 3-4: Summary of the Expenditures for the works done by the Irrigation Department under ministry and other agencies' votes

Vote	Allocation (Rs.'000)	Expenditure as at 31.12.2021 (Rs.'000)	Financial Progress (%)
Ministry of Irrigation			
198-2-3-8-2506	75,936.28	68,441.91	90.13
198-2-3-52-2506	139,730.73	(278,682.38)	(199.44)
198-2-3-21-2506	30,170.60	28,981.75	96.06
198-2-15-4-2506	641,396.68	619,972.75	96.66
198-2-3-9-2507	1,554.60	1,466.17	94.31
198-2-3-43-2506	22,990.00	20,742.12	90.22
198-2-3-0-2003	865.60	753.63	87.06
198-2-3-49-2506	40,000.00	25,579.96	63.95
198-2-3-45-2506	16,000.00	11,999.19	74.99
198-2-3-0-2001	279.76	265.77	95.00
198-2-15-2-2506	639,537.14	529,157.68	95.03
198-2-3-18-2506	1,175.00	1,085.42	92.38
Total	**1,609,636.40**	**1,029,763.99**	**67.44**
Ministry of Public Administration, Home Affairs, Provincial Councils and Local Government			
130-1-2-0-1003	7,248.66	7,226.69	99.70
130-1-2-0-1001	14,926.26	14,765.46	99.74
Total	**22,178.46**	**21,992.15**	**99.72**
State Ministry of Tanks, Reservoirs & Irrigation Development Related to Rural Paddy Fields			
429-2-3-2-2506	-	(161,994.65)	-
429-2-3-4-2506	-	(441,396.68)	-
Total	**-**	**(603,391.34)**	
Department of Agriculture			
285-2-2-0-2105	1,037.00	1,034.66	99.77
285-2-2-15-2507	800.00	799.96	99.99
Total	**1,837.00**	**1,834.62**	**99.87**
Ministry of Water Supply			
166-2-5-97-2201	31,138.86	31,117.29	99.93
Ministry of Environment			
160-2-3-138-2509	16,500.00	16,500.00	100.00

4 Investigation, Planning and Design Sub Department (I, P&D)

This sub department is mainly responsible for Investigation, planning and Design works of water related infrastructure development. There are 12 branches under this sub department. They are Hydrology and Disaster Management branch, Engineering Material branch, Engineering Geology Branch, Hydraulics Branch, Water resources planning branch, Project planning and Design branch, Environment Studies branch, Land use branch, Engineering Scientific and Technical service branch, Information & Communication Technology (ICT) branch, Geo Informatics Studies branch. Three Zonal design offices are also functioning under this sub department.

4.1 Hydrology & Disaster Management Branch (Hyg & DM)

This is a specialized division of the Irrigation Department (ID) which is responsible for maintaining the Hydro-meteorological information system of the country. It was formed as a separate division in the year 1942 as per the information available, around 42 years after the formation of the Irrigation Department. However, the collection of hydro-meteorological data in major river basins started a few decades back. The river gauge at 'Nagalagam Street' on the Kelani River has been functioning since 1924.

4.1.1 Objectives

- Hydrological Data Collection and Management
- Hydrological Data Analysis
- Flood Forecasting and Early Warning
- Coordination with Disaster Management Authorities for better management of disasters.

4.1.2 Functions

- The operation, maintenance, and Hydro-meteorological data collection from 41 principal gauging stations, 66 peripheral stations, and 106 Automated Stations throughout the country.
- Collection of data from 56 rainfall and weather stations that are governed by some other parties.
- Processing hydro-meteorological data and converting them to useful information
- Archiving and dissemination of hydrological data and information
- Analyzing rainfall and river stage and issuing flood forecasting and early warning for major river basins of the country.
- Coordinate with disaster management authorities of the country such as DMC, District Administration, and Department of Meteorology (DOM) for better management of water-related disasters.
- Modeling of river basins for flood management.
- Establish new river gauging stations where necessary.

4.1.3 Performance

The key performances of the Hyg & DM division for the year 2022, in addition to the successful operation and maintenance of Hydro-meteorological stations around the country are mentioned below.

a. Data Collection, Achieving and Management

41 Principal Hydrological Gauging Stations including 10 weather stations, 66 peripheral stations and 106 automated stations were successfully operated and maintained during the whole year even with all the restrictions imposed on fuel allocation. The data recording, primary screening, analyzing and archiving had been carried out continuously throughout the year for the above stations.

Processed Hydro-meteorological data and information collected and archived are used not only by the ID but also by other institutions responsible for water-related infrastructure development for various purposes in the country. In addition, private consultants for their various consultancy works, academics and students for their research works too use that data for their respective purposes. Issued all the available data for a single river basin to students for their academic research free of charge, provided that the respective institution shall come into a written agreement with the division, ensuring the research outcomes are shared with ID. Details of data shared during the year 2022 are given in Table 4-1.

Table 4-1: Data Shares during the Year 2022

No	Description	Quantity
01	Shared with the students for academic reasons	70
02	Shared with government and private agencies	60

b. Developing a database using Access Software

We were able to develop an Access Database including all the Hydro-Meterological data sets available in the division. This can be considered as a very important achievement gained during the year.

c. Archiving Data in a Cloud Storage hired from Sri Lanka Telecom

Until this year all the datasets belonging to the division were archived only in Hard Drives such as internal hard disks of computers, external hard disks and pen drives. Considering the risk involved in data losses in this type of systems, we have hired a cloud storage of 1TB from Sri Lanka Telecom and achieved all the important data in it using secured credentials. This could be considered as a very important achievement in this year.

d. Establishment of new permanent river Gauging Station

Peripheral River Gauging Station in Moragaswewa has been identified as a very important location which is situated in the middle reach of Daduru Oya. As such, it is selected for establishing a Permanent River Gauging Station. The old cabin room of the cableway has been repaired and taken for use as the office space of the station. This is very important for collecting water related data and flood management of Deduru Oya.

e. Flood monitoring and early warning

Flood monitoring and early warning activities were carried out for relevant major river basins of the country throughout the day and night during such events. Forecasting and early warning messages were issued to disaster management authorities and the general public during the flood events as given in Table 4-2. Hyg & DM division participated in activities of the Disaster Management Center as a Technical Advisor in managing flood disasters during response and recovery phases too.

Table 4-2: Flood Warnings issued in 2022

River Basin	Number of Warnings	Dates of Issues
Kelani Ganga	2	5th of Sep / 14th of Oct
Kalu Ganga	6	13th & 31st of May / 01st & 31st of Aug / 05th of Sep / 14th of Oct
Gin Ganga	1	31st of May
Nilwala Ganga	2	31st of May / 01st of Aug
Maha Oya	1	5th of Sep
Attanagalu Oya	2	31st of May / 14th of Oct

The graphs below are a few examples of showing how accurately and quickly the floods were warned during the year 2022. In most flood events, it was issued Amber and Red warning messages to the public before it reaches to the flood levels as shown in figure 4-1 and figure 4-2.

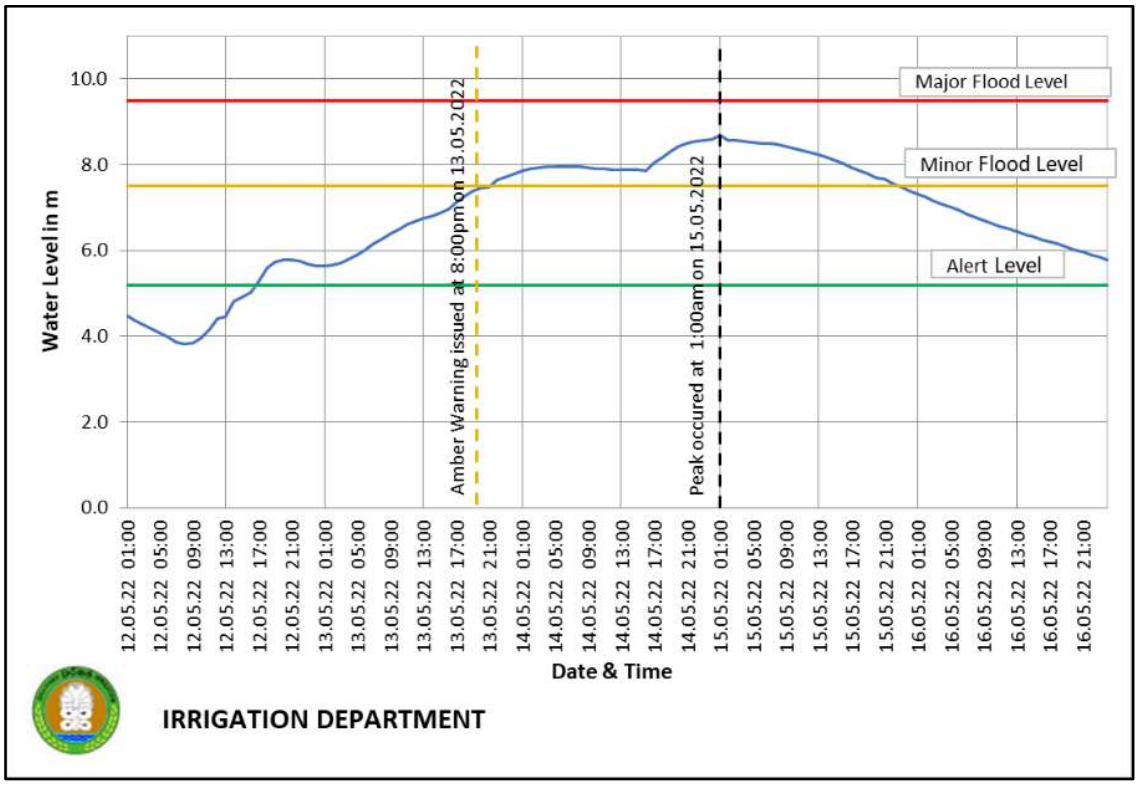


Figure 4-1: Water Level Variation in Kalu Ganga at Rathnapura Gauging Station

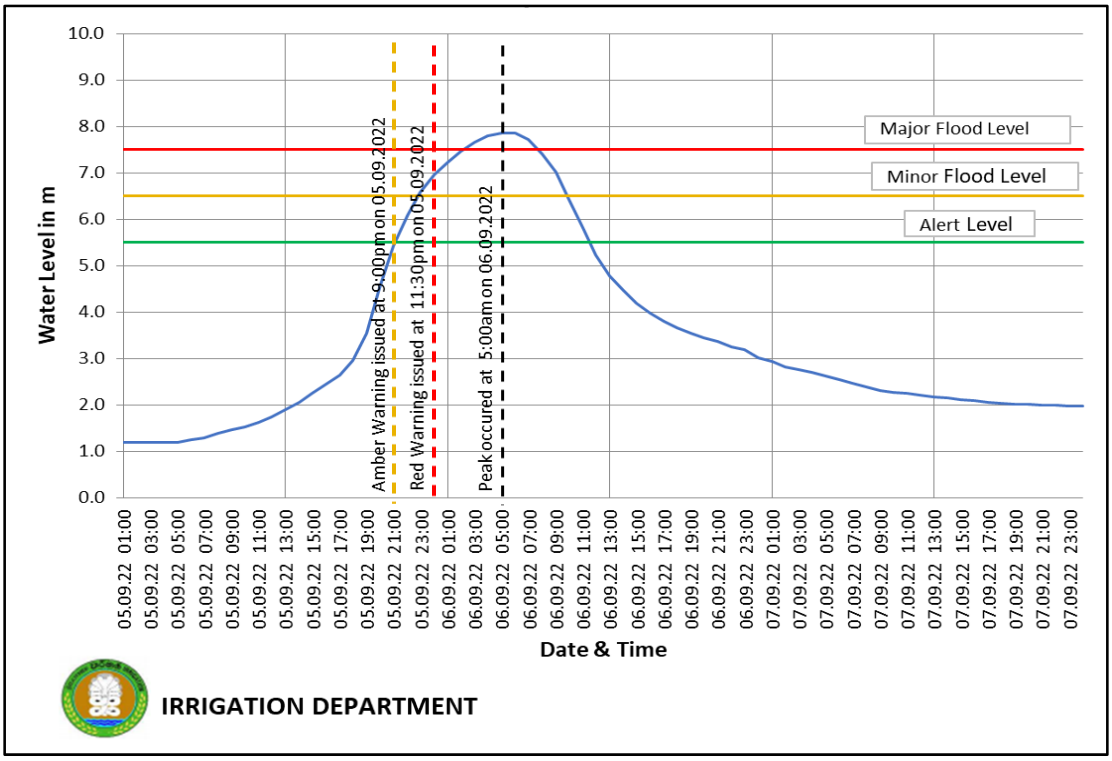


Figure 4-2: Water Level Variation in Maha Oya at Giriulla Gauging Station

f. Current Metering (Updating the Rating Curves)

Current metering at many Gauging Stations during low, normal, and flood flows were carried out for verifying existing Rating Curves and constructing new Rating Curves. Current Metering work done in 51 Nos of locations in 19 river basins during the 2022 year.

Figure 4-3 : Current Metering at Main Rivers

g. Current Metering in Irrigation Schemes for Water Management

Hyg & DM division has carried out extensive work for establishing Rating Curves in irrigation canals of selected irrigation schemes for Water Management purposes on request of the Water Management Division of ID. In most cases, canal gauges are installed by the field officers of Hyg & DM division while in some other cases canal gauges were installed by the relevant irrigation division. All the requests were attended and a complete report including approved rating curves with key maps and locations were handed over to DI (WM) with copies to respective Regional Directors and Divisional Irrigation Engineers. The list of completed irrigation schemes is given in Table 4-4.

Table 4-3: Discharge Measurements in Irrigation Schemes for Water Management

No	Irrigation Scheme	Division	Dates of field measurement
1	Minipe LB	Hasalaka	2022/01/20 to 26,2022/02/02,03
2	Mapakada Lake	Mapakada	2022/01/25 to 02/02,2022/02/09 to 02/14
3	Pavatkulam	Vavuniya	2022/01/26 to 2022/01/28
4	Parakrama Samudraya	Polonnaruwa	2022/02/18 to 2022/02/22

Figure 4-4: Current Metering at Irrigation Canals

h. Installing Gauge Posts under the Wewgam Pubuduwa Project

There are several Automated River Gauges installed under the Wewgam Pubuduwa Project in Malwathu Oya, Yan Oya, and Mi Oya river basins. There was a necessity to install Manual River Gauges (for refining and adjusting values given by automated instruments) and develop Rating Curves at each and every location, in order to get the maximum use of these gauges for water resources development and flood management. Gauge posts were established in all 23 stations and discharge measurements were taken at low water levels. Other discharge measurements are to be taken in 2023.

Figure 4-5: Installing Gauge Posts under the Wewgam Pubuduwa Project

4.1.4 Staff Position

Table 4-4: Staff Position of the division

	Designation	Approved cadre	Present cadre	Excess / Deficit
1	Director of Irrigation	1	1	-
2	Chief Engineer	1	1	-
3	Irrigation Engineer	8	3	5
4	Earth Resources Engineer	2	1	1
5	Draughtsman	3	2	1
6	Development Officer	-	1	-
7	Management Service Officer	5	2	3
8	Hydrological Data Superintendent	1	1	-
9	Senior Hydrological Assistant	2	1	1
10	Hydrological Assistant	19	10	9
11	Hydrological Field Superintendent	1	1	-
12	Senior Hydrological Field Assistant	3	-	3
13	Hydrological Field Assistant	32	28	4
14	Hydrological survey Assistant	110	76	34
15	Stores Keeper	1	-	1
16	Stores Assistant	1	1	-
17	Office Assistant	5	1	4
18	Driver	5	1	4
19	Labours	-	11	-

4.2 Engineering Materials Branch

4.2.1 Objectives

Engineering Materials Division provides a supporting service to the Irrigation Department as well as to other organizations such as Provincial Councils, Statutory Boards and Authorities, to assure the quality of civil engineering works in the following stages,

- Planning.
- Designing.
- Construction.
- Maintenance.

4.2.2 Functions

The main activities performed under the above stages are:

- Foundation investigation for earthen dams (new constructions as well as rehabilitation), anicuts and other irrigation related structures and buildings.
- Locating borrow areas for earth works and selecting sources of material for concrete works.
- Design of earth embankments and foundations.
- Performing quality assurance tests for concrete, cement, steel bars and earth works.
- Maintenance & troubleshooting and remedial measures
- Conducting research on use of available construction materials and improved methodologies
- Providing consultancy services and Laboratory services to private sector and semi government organizations, for site investigations and quality assessment in concrete and earth works.

4.2.3 Performance

a. Borrow Area Investigations and Investigation along the dam axis for new construction

Pankulam Aru Reservoir in Morawewa DIE Division

Figure 4-6: Augering in Pan kulam Aru Reservoir bed

Figure 4-7: During Test pit excavation in tank bed of Pan kulam Aru Reservoir

b. Investigations of existing dams for checking the stability of existing embankments and formulating rehabilitation proposals for improving the stability including conducting required borrow area investigation.

- Design for rehabilitating of Mahakanadarawa under Anuradhapura division.
- Design for rehabilitation of Kandiyapitawewa under Welioya division.
- Design for rehabilitation of MeegasAra under Umaoya downstream project.
- Design for rehabilitation of Peramaduwa Tank in Kantale division.
- Design for rehabilitation of Giritale Tank in Polonnaruwa division.

c. Rehabilitating proposal given for improving the stability of the embankment.

- Design for improvements of tank bund of Thissa wewa under Thissamaharama Division.
- Arawewa under Mapakada division-alternative design to implement the improvement to the embankment without disturbing the existing dam.
- Mahalindawewa under Anuradhapura division- alternative design to implement the improvement to the embankment without disturbing the existing dam.

d. Investigation and design done for protect the Denawaka river bank using used tyres closed to the Gankanda National School.

e. Quality Control and Quality Assurance works for Major Constructions and Maintenance Work of Irrigation Schemes

Quality control and quality assurance works of following major construction projects, implemented by the Irrigation Department, were carried out in addition to the routine works such as quality assurance work of Maintenance and rehabilitation work of Irrigation scheme done under block votes.

- Kuda oya Reservoirs and Canal System under Uma Oya Downstream Development Project.
- Wattegedara reservoir project
- Lower Malwattu oya reservoir project
- Ellewewa reservoir project
- Uraula reservoir project
- Kudavilachchiya reservoir project
- Productivity Enhancement & Irrigation System Improvement Project (PEISEIP)
- Warisubhagya Project
- 28 Nos of small scale borrow area investigation were carried out by project laboratories.

f.Field and Laboratory Tests Carried out during the year 2022

Table 4-5: Field and laboratory tests carried out

Central Laboratory		**Range/Project Laboratories**	
Soil		**Soil**	
Particle size distribution test	519	Hand Augering	223
Index Properties test	519	Excavation of test pits	101
Dry density-moisture content relationship test	42	Particle size distribution test	104
Tri-axial shear test	41	Index properties test	81
Unconfined Compression test	28	Dry density moisture relationship test	170
Soil Permeability test	08	In-situ density test	639
		Moisture content test	1602
Coarse aggregate		**Coarse aggregate**	
Gradation test	08	Gradation test	108
Specific gravity and water absorption	08		
Los-Angeles Abrasion test	08		
Impact value	04		
Fine aggregate		**Fine aggregate**	
Gradation test	08	Gradation test	125
Concrete		**Concrete**	
Extracting core samples	12	Slump test	461
Non – destructive tests	12	Compressive strength of test cubes	2080
Compressive strength of concrete core sample	12		
Compressive strength of test cubes	220	**Field Test**	
Concrete Permeability Test	24	SPT test	6
Calibration			
Calibration of concrete testing machines	01		
Steel			
Tensile strength	30		
Bending test	30		
Field Test			
DCP Tests	32		
Soil resistivity test	01		

Figure 4-8: Tri-axial shear test

Figure 4-9: Index properties test

Figure 4-10: Proctor compaction test

Figure 4-11: Tensile and Bending Test for Reinforcement

g. Laboratory services provided for other institutions

- Investigation of existing embankment for establishing stability of the embankment and formulating rehabilitation proposed for improving the stability of existing embankment of Siyabalankotuwa tank in North Western Province.
- Investigation on Quality of concrete at Andegala ogee type anicut at Polgahawela in Kurunagela Region in Hiriyala Division.
- Testing of Ashok reinforcement bars with the request of DI (Kurunegala).
- Investigation of ponds located at the premises of Royal Golf Club/Colombo 08 for establish the depth of desilting.
- Investigation of pond located at the premises of Department of Ayurveda in Navinna to establish the bed material and formulating a proposal to control the leakage.
- Reinforcement sampling and testing of Mahaweli Consultancy Bureu (PVt) Ltd.
- Field permeability test for trial test filling at Mahakithula dam.
- Field permeability test at GM metal packaging lanka (Pvt) Ltd Hanwella.
- Reinforcement testing for Ashoka Steel used for Andagala anicut under Hiriyala division.
- Geological investigation at Heelpan Kandura Stream at Wewsiripitiya in Kandy Division.
- Preparation for Examination paper for senior Technical Assistants.

h. Application of Soil-Cement-STEIN Mixture in Improvement of Road and Canal

As per the request of Japanese Institute of Irrigation and Drainage (JIID), Engineering Materials Division of Irrigation Department was entrusted to conduct the testing of materials establishment of engineering properties of the borrow area materials and the compressive strength of soil–cement–STEIN mixture for finalizing the mix proportion to be adopted at the site.

Accordingly, Borrow area investigations were done by the Engineering Materials division of Irrigation Department, for establishment of engineering properties of the borrowed area materials.

Figure 4-12: Stock piled soil for Canal road construction

Figure 4-13: Stock piled soil after removing soil lumps and after drying up

Figure 4-14: Compaction by 1 ton roller in the road construction

Figure 4-15: Compaction by Plate Wacker in canal lining

i. Purchase of Soil and Concrete Testing Equipment

- Soil Core Cutter and Driving Dolly (25 Nos.)
- Infiltrometer Tow Drums (Ø 300mm) (01 No.)
- Infiltrometer Tow Drums (Ø 600mm) (01 No.)

4.2.4 Expenditure during the year 2022

Table 4-6: Expenditure during the year 2022

	Vote Particulars	Vote	Allocation (Rs. Mn)	Expenditure (Rs. Mn)
1	Engineering Materials Studies	282-2-2- 2507-11-09-5	1.00	0.999
2	Conducting tests required for quality control and quality assurance work of construction	282-02-02-2507(11)-008-8	2.90	2.25
3	Feasibility Studies for Major, Medium Irrigation projects and surveys/ soil/ Geotechnical investigation	282-2-2-2507-11-008-1	1.551	1.546

4.2.5 Staff Position

Table 4-7: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit/ Excess
01	Director of Irrigation	01	01	00
02	Chief Engineer	01	01	00
03	Irrigation Engineer	02	02	00
04	Earth Resources Engineer	02	01	01
05	Draughtsman	02	01	01
06	Research Assistant	19	12	07
07	Civil Engineering Materials Surveyor	43	19	24
08	Technical Aide	09	09	00
09	Management Assistant	05	03	02
10	Store Keeper	02	01	01
11	Store Assistant	01	01	00
12	Driver	20	01	05
13	Relief Driver		14	
14	KKS	02	01	01
15	Laboratory Attendant	78	17	37
16	Laboratory Labour		05	
17	Maintenance Labour		05	
18	Labour		12	
19	Field Watcher		02	

4.3 Engineering Geology Branch

Engineering Geology Division of Irrigation Department is specialized in geological and geotechnical investigations and foundation treatment works which assists the specialized branches of irrigation department, zonal design offices and regions. Engineering Geology Division provides geological information based on borehole data in combination with geophysical survey data which is the perfect base for sustainable designs and prognosticating of geological and hydro-geological features and conditions.

4.3.1 Objectives

- To provide geotechnical recommendations for the most feasible, safest, economical and sustainable design and improvements, for newly proposed and existing watering storing, conveying and other hydro related structures
- To develop and carry out remedial measures of existing water storing, conveying and other hydro related structures in terms of seepage and stability
- To train the human resources on subsurface investigations, foundation treatment and hydro-geological analysis of the subsurface

4.3.2 Functions

- Geotechnical and Geophysical Investigations
    - Planning of investigation works, preliminary investigations and geological mapping
    - Geophysical surveying
    - Subsurface explorations by drilling into subsurface and collecting samples
    - Monitoring groundwater conditions
    - Performing field tests such as Standard Penetration Test (SPT), Permeability tests, Water pressure tests etc. while drilling into subsurface
    - Geological logging
    - Analyzing geophysical data, geological logs and field test results and submitting geotechnical investigation reports with recommendations
- Planning and execution of foundation strengthening works (Grouting)
- Planning and execution of surface strengthening works (Shotcreting)
- Piezometer installations
- Assisting and guiding government and non-government organizations on geological and hydro-geological analysis of the subsurface
- Providing training on geotechnical investigations, foundation treatment and hydro-geological analysis of the subsurface

4.3.3 Performance

Following geotechnical investigations were conducted by Engineering Geology division in the year 2022.

a. Geotechnical Investigation at Daluggala Tank – Wellawaya

Engineering Geology division conducted a comprehensive geotechnical investigation for Daluggala tank which belongs to Wellawaya division to analyze the present subsurface condition of the existing bund on April 2022. 10 boreholes were done for this project.

Figure 4-16: Investigation works at Daluggala

b. Geotechnical Investigation at Aldamporuwa tank – Hasalaka

Aldamporuwa Tank is situated at Hasalaka in Kandy District. It is proposed to do some improvements to the bund, mainly to raise the bund and to shift the spill location to upstream. Geological investigation was carried out by the Engineering Geology division to determine the suitability of subsurface conditions of the bund for the proposed improvements and to check the subsurface conditions of the proposed new spill location. Investigations were carried out from January 2022 to March 2022. 08 boreholes were done for this project.

c. Geotechnical Investigation at Balagala Tank -Batticaloa

Balagala tank is an abandoned tank belonging to Nawakiri Irrigation Engineer's division in Batticaloa region. This tank was proposed for restoration to overcome the shortage of water available for drinking and agricultural purposes for the needs of people in Nawakiri area. The initial proposal is to rebuild the existing ancient bund and construct the water conveying structures of the tank. To analyze the subsurface condition of the newly proposed part of the bund axis and spill location, Engineering Geology division conducted a comprehensive geotechnical and geological assessment in March 2022. 09 boreholes were done for this project.

Figure 4-17: Geotechnical Investigation works at Balagala tank

d. Geotechnical Investigation at Kuda oya trough

Engineering Geology division conducted a comprehensive geotechnical assessment for Kuda oya trough in January 2022. 16 boreholes were done for this project.

e. Geotechnical Investigation for the proposed stores and workshop complex for Engineering Geology Division at Rathmalana

It is proposed to construct a two storied building for the stores and workshop complex of Engineering Geology Division at Rathmalana Central Mechanical Workshop premises. Geological investigation was carried out by the Engineering Geology division to determine the suitability of the subsurface for the proposed construction and to give recommendations for the foundation design. Investigations were carried out from February to March 2022. Two boreholes were done for this.

f. Geotechnical Investigation for the proposed fabrication shop for mechanical workshop at Rathmalana

It is proposed to construct a fabrication unit and a two storied office building at Rathmalana Central Mechanical Workshop premises of Irrigation Department. Geological investigation was carried out by the Engineering Geology division to determine the suitability of the subsurface for the proposed construction and to give recommendations for the foundation design. Investigations were carried out in March 2022. Two boreholes were done for this.

g. Geotechnical Investigation at Kotapathdamana Tank

Geological investigation for Kotapathdamana Tank, Ampara was carried out by Engineering Geology division to determine the subsurface conditions of the site for the proposed new bund. Investigation was carried on April to December 2022. 10 boreholes were done for this project.

Figure 4-18: Geotechnical Investigation at Kotapathdamana Tank

h. Foundation Treatment Works

Table 4-8: foundation treatment works conducted by Engineering Geology division in the year 2022

No	Location	Description
01	Foundation treatment works for Waththegedara bund axis	Started on2021 and was continued in 2022
02	Foundation treatment at Ellewewa main dam	Started on2021 and it was continued in 2022
03	Foundation treatment at Lower Malwathu oya Reservoir Bund axis	Started on 2021 and it was continued in 2022
04	Foundation treatment Uyanwewa Tank, Matara	Carried out in 2022.
05	Foundation treatment at Dengama Tank, Matara	Carried out in 2022 and it will be continued in 2023
06	Foundation treatment works at Morana Reservoir Bund axis	Started on 2021 and it was continued in 2022
07	Foundation treatment at Uyanwaththa Tank, Kalutara	Carried out in 2022

Figure 4-19: Foundation Treatment works at Denagama Tank

Figure 4-20: Foundation Treatment works at Morana


Figure 4-21: Foundation Treatment works at Uyanwaththa Tank

4.3.4 Staff Position

Table 4-9: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
1	Director	01	01	-
2	CE	01	01	-
3	Irrigation Engineer	01	01	-
4	Geo. Technical officer / Geologist	02	02	-
5	DraftsPerson	01	01	-
6	Drilling Superintendent	01	01	-
7	A.D.S.	03	01	02
8	Drilling Assistant	27	23	04
9	Management Assistants	07	02	05
10	Storekeeper	05	00	05
11	Store Attendant	05	01	04
12	KKS	04	01	03
13	Drivers	11	06	05
14	Mechanics	03	02	01
15	Laboratory Labours	27	06	09
16	Maintenance Labours		02	
17	Labours		07	
18	Lab Attendant		03	
19	Watchers (Day & Night)	03	04	01
20	Cleaner (For Lorries)	02	00	02

4.4 Hydraulics Research Laboratory

4.4.1 Objective

Hydraulics Research Laboratory (HRL) is entrusted with carrying out hydraulics model investigations, field inspections/investigations and to provide consultancy services to the other organizations with respect to hydraulics related issues. Also, it undertakes service & repair of survey & hydrological instruments, issuing conformity certificates for surveying & other precision instruments. In addition, it conducts hydraulics practical for the students in universities and other technological institutions.

4.4.2 Functions

- Construction of hydraulics scalar models including installation of measuring apparatus and precise equipment for carrying out model tests, tabulating test results, preparing diagrams and reports.
- Field inspections on request, to provide technical recommendations and opinions for hydraulics issues.
- Fabrication, installation and calibration of measuring devices for flow measurement.
- Seepage studies in canal distribution systems.
- Calibration of sluice outlets and providing rating curves.
- Exhibition Models preparation and participation for national/international exhibitions.
- Conducting hydraulics practical sessions for students in universities & technological colleges.
- Assisting final year undergraduate students for their final year research project work.
- Service, repairing and calibration of survey & hydrological instruments.
- Issuing conformity certificates for survey & other precision instruments.

4.4.3 Performance in 2022

a. Physical Model Studies

The design of hydraulic structure is based on theoretical considerations in contrast to the actual physical conditions. Therefore, the results of model studies are essential to ensure the hydraulics behavior of structural design and recommending necessary modifications required to overcome the issues. To achieve the above goals the following model tests were carried out by the hydraulics research laboratory in the year 2022.

i. Model studies of Mavadiodai Anicut

Mavadiodai anicut is used to head up and divert the water to irrigable areas under Rugam division. It irrigates about 3,300 ha of paddy lands and other field crops (OFC). Irrigation Department constructed the new six bays radial gated Mavadiodai Anicut across Mundeni Aru River in 2016. The headworks consists of 36 m long 06 bays radial gated Anicut, 170 m long flood bund and RB irrigation outlet canal.

The main objectives of the hydraulic scalar model tests for spillway are:

- To improve the approach of the anicut.
- To investigate and to improve the flow conditions through the anicut.
- To investigate and improve the downstream flow condition of anicut.

All model tests were carried out in accordance with Froude law similarity. In the selection of the scale limits of model similarity, all hydraulics parameters under investigation, measuring techniques, pumping capacities and economy were considered. A three-dimensional model to a scale of 1:25 was constructed to carry out all studies as per the request and the final report was submmited to relevant officials in the Irrigation Department. The model for the existing condition was tested & analyzed. Finlay, the completed final report was sent to the relevant officials in the Irrigation Department.

Figure 4-22: Testing condition - Mavadiodai Anicut model

ii. Model studies of Ellewewa uncontrolled chute spillway

The Ellewewa reservoir is constructed in Emblipitiya area in Ratnapura district. The Irrigation department is constructing Ellewewa uncontrolled chute spillway across Kadigan Ara river. The Hydraulics research laboratory of the Irrigation department was entrusted with the hydraulics model investigation of the Ellewewa uncontrolled chute spillway structure in November 2021.

According to the Froude law similarity a physical model to a geometric scale of 1:12 of the prototype was selected by considering hydraulics parameters and site investigations to carry out the studies.

The Main objectives of the model studies are,

- To optimize the approach of the spillway.
- Investigate and to optimize the flow conditions over the ogee.
- Investigate and to optimize the behavior of flow in the chute and stilling basin.

The model construction for an existing condition is near to completion at the hydraulics research laboratory.

Figure 4-23: Model construction of Ellewewa uncontrolled chute spillway

iii. Model studies of Lower Malwathu Oya reservoir

The proposed Malwathu Oya Reservoir is located across Malwathu Oya at Kappachchi which lies in Anuradhapura and Vavuniya Districts. The Lower Malwathu Oya reservoir is to be constructed by erecting a dam across the Malwathu Oya from the Bogoda area. This project includes construction of 209 MCM capacity reservoir, 3,590 m long earth dam, Radial Gated Spillway, Left Bank, Right Bank and River Sluices and canal systems. All model tests will be carried out in accordance with Froude Law Similarity. A construction of three-dimensional model to a scale of 1:64 is near to completion to carry out the studies as per the request.

The Main objectives of the model studies are,

- To optimize the approach of the spillway
- To investigate and to optimize the flow conditions through the spillway.
- To investigate and to flow behavior of the spillway
- To investigate and optimize the downstream of spillway

Figure 4-24: Model construction of Lower Malwathu Oya reservoir

b. Field Inspections and Observations

- Field inspection of Lower Malwathu Oya reservoir for physical model construction.
- Field inspection of Ellewewa reservoir for physical model construction.
- Field inspection of river bank erosion at Halmulla in Kelani River.
  Five numbers of repelling groins were proposed at five cross sections.
- Field inspections of river bank erosion of Maa oya & Deduru oya.
  Field inspection report was sent to relevant officials for further investigation and necessary temporary mitigation arrangements.

Figure 4-25: Field inspection for Maa Oya and Deduru Oya

c. Model Fabrications and Participations for Exhibitions

On behalf of the irrigation department, HRL is the main organizer and facilitator for national exhibitions. As a specialized unit in the Irrigation Department HRL explains about the ancient irrigation system models & other model structures to school and university students and the general public.

HRL participated in the International Water Conference (IWC), Sri Lanka-2022.

Figure 4-26: Irrigation Department exhibition stall in IWC-2022

d. Conducting hydraulics practical sessions

Hydraulics and fluid mechanics laboratory practical for the Higher National Diploma in Irrigation Technology for passed out trainees of International Training Institute of Irrigation and Water management – Kothmale were conducted in the HRL. Number of participants was 166 on 28th and 29th of December 2022.

Figure 4-27: Conducting practical sessions

e. Maintenance & Improvements Works in Hydraulic Research Laboratory

The following improvements were executed to the Hydraulic Laboratory during 2022.

- Renovation of instrument section.
- Renovation of General helpers' rest room.
- Landscaping in laboratory premises.
- Construction of Rectangular tank in higher level (25% completed).
- Repairs of windows in Workshop.
- Cleaning & Renovation of drainage canal.

f. Instrument Section

Service and Repairing of Survey Instruments

- Four numbers of Total Station were repaired and serviced for Puttalam, Trincomalee and Colombo region and Mundinai Aru River Basin Project.
- 10 Nos of Dip Meters were manufactured and three instruments were installed in Anuradhapura Region.
- A Water Level Indicator was built for the Overhead Tank of Hydraulics Research Laboratory.

4.4.4 Expenditure

Table 4-10: Expenditure

	Vote Particulars	Vote No.	Allocation (Rs. Million)	Expenditure (Rs. Million)
01	Hydraulics Model Studies	282-02-02-0-2507-11-8-7	1.400	1.383
02	Hydraulics Model Studies	282-02-02-0-2507-11-9-4	0.100	0.098
03	Improvement to vehicle	282-1-1-0-2003-11	0.391	0.391
04	Feasibility studies – Engineering materials	282-02-02-0-2507-11-8-8	0.100	0.089

4.4.5 Staff Position

Table 4-11: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit
01	Director of Irrigation	01	01	-
02	Chief Engineer	01	01	-
03	Irrigation Engineer	03	01	02
04	Instruments Superintendent	01	01	-
05	Hydraulics Superintendent	01	01	-
06	Assistant Instruments Superintendent	01	-	01
07	Assistant Hydraulic Superintendent	01	-	01
08	Senior Draughtsman	01	-	01
09	Research Assistant	15	09	06
10	Draughtsman	02	01	01
11	Workshop Forman	01	-	01
12	Engineer Assistant	01	-	01
13	Management Service Officer	07	03	04
14	Store Keeper	01	01	-
15	Computer Operator	01	-	01
16	Minor Supervisor	02	-	02
17	Driver	03	-	03
18	OES	02	01	01
19	Mason	03	-	03
20	Instrument Artificer	01	01	-
21	Carpenter	03	-	03
22	Painter	02	-	02
23	Blacksmith	01	-	01
24	Electrician	01	-	01
25	Machinist	04	-	04
26	Welder	02	-	02
27	Fitter	01	-	01
28	Plumber	01	-	01
29	Watch Repairer	01	01	-
30	Store Assistant	03	01	02
31	Lab Assistant / Attendant	20	06	14
32	Instrument Repairer	05	01	04
33	Workshop labour	10	-	10
34	Pump Operator	02	-	02
35	Labours/ Maintenance labours	25	10	15
36	Watcher	02	-	02
37	Sanitary Labour	02	-	02
38	Store Labour	03	-	03
39	Photographer	01	-	01
40	Photographer Assistant	01	-	01
41	Typewriter Repairer	01	-	01
42	Computer Hardware Technician	05	-	05
43	Dark Room Assistant	01	-	01
44	Watcher	02	-	02

Project Planning & Designs Branch

Project Planning and Designs branch consists of two separate units; Project planning unit and Designs unit which are having two different tasks to carry out related to water resources development in Sri Lanka.
Immediate supervision of the works carried out under each unit is done by the Chief Engineer (CE). Design Branch assignments are done under two categories namely Head Works and System Designs due to the nature of works and convenience of managing limited resources. Overall supervision of two branches is done by the DI (PP & D) with the support of CEE.

4.5 Project Planning Branch

4.5.1 Objectives

The scope of the Project Planning Branch is to identify new water resources development proposals and examine the feasibility of the potential multi- use of water resources by providing its optimum benefit to the community. In this process Project Planning Branch gets involved in planning and formulating new project proposals within its scope.

4.5.2 Main Functions

- Identification of water resource development possibilities.
- Project formulation by detailed analysis of projects.
- Finalization of feasibility reports.
- Providing and sharing technical know-how with other agencies.

4.5.3 Performance

a. Reviewing technical proposals submitted by Chinese contractor with regard to construction of proposed Kumbukkan Oya Dam and Tunnel

The feasibility study was completed by the Project Planning Branch in 2013. It is proposed to construct a 48 MCM capacity reservoir across the Kumbukkan Oya reservoir and provide irrigation facilities to 10,315 acs. of new and 3,100 acs. of existing lands downstream of the reservoir.
In addition, it is proposed to provide safe drinking water and to generate hydro power.
GOSL is planning to utilize the foreign funds for this project as the project cost is fairly high. With that intention the cabinet has given permission to call for technical and financial proposal from Chinese contractor (SINOMACH-HE and CHEC).
The contractor submitted his financial proposal for the construction of the Kumbukkan Oya dam and tunnel. The project planning branch revisited the financial viability and submitted the recommendations on the new financial proposal.

b. Reviewing of Feasibility study report of proposed Pekkulama reservoir project

The president of the government of Sri Lanka had a series of discussions among around 25,000 villages throughout the country. During this process the government has identified the grievances of the public such as the requirement of housing, electricity, drinking water, roads, and public transport and irrigation facilities in every village. As a result, the proposal of constructing the Pekkulama Reservoir was raised.

The main component of this proposed project is to construct the Pekkulama reservoir having capacity of 5,845.2 acft. (7.21 MCM). In addition to that, construction of irrigation facilities and infrastructures including canal systems are also components of this project. As the project location is situated in a forest area which is habitat for several species such as elephants, provision for environmental facilities is also included under this project.

At present farmers of Pekkulama scheme are doing the cultivation only in Maha season. Irrigation water requirement for 750 acres of existing lands will be fulfilled by constructing Pekkulama reservoir in both Maha and Yala seasons.

The total project cost of the project is Rs. 1,700 million and Rs. 1,250 million respectively for the two alternatives considered as concrete and roller compacted concrete (RCC) dams. The major component of the project is construction of concrete dam or RCC dam which costs Rs. 940 million for concrete dam and 600 million for RCC dam. Also, Rs. 75 million, Rs. 60 million, Rs. 75 million and Rs. 75 million are allocated for rehabilitation of saddle dam, Construction of sluice, Construction of spillway and Construction of Irrigation facilities and Infrastructures respectively for both alternatives. In addition to that, Rs. 10 million is allocated for environmental facilities as a provision.

As an indirect benefit, there will be a prospect for tourism and potential income because the project location is situated inside the forest area which is near to Sigiriya.

The Project Planning Branch reviewed the above proposal twice submitted by the Director of Irrigation (Polonnaruwa Region) and submitted the comments accordingly. Further the government will decide the implementation of the Project.

c. Technical Evaluation of EOI for Proposed Wee Oya Reservoir

With the intention of building a more climate resilient economy in the country, the Ministry of Irrigation, under the Climate Resilience Improvement Project (CRIP), funded by the World Bank has embarked upon Development of a Basin Investment Plans (DBIP) for 10 selected river basins and the Kelani River basin is one such basin. Pre-feasibility studies conducted on this basin have come out with the proposal of investigating into the feasibility of four (04) multi-purpose reservoirs in the upper catchment for flood control, drinking and industrial water supply and power generation.

Among these four proposed reservoirs, Wee Oya reservoir is one such reservoir that has been prioritized by the Ministry to be investigated for its feasibility. The main purpose for the prioritization of the project is to cater the increasing drinking water demand as well as the flood mitigation of Lower Kelani basin.

Wee Oya is a tributary of the Kelani River which meets Kelani River near Yatiyanthota and the proposed reservoir constructed across Wee Oya is expected to retain a part of the flood to attenuate and delay the outflow flood peak. Wee Oya reservoir is also expected to regulate river flows and release water to maintain sufficient discharge for water demand in parallel with the growing urbanization and water-based industries in and around Colombo during meteorological droughts. In addition to flood mitigation and drinking water supply, possible power generation is also a consideration.

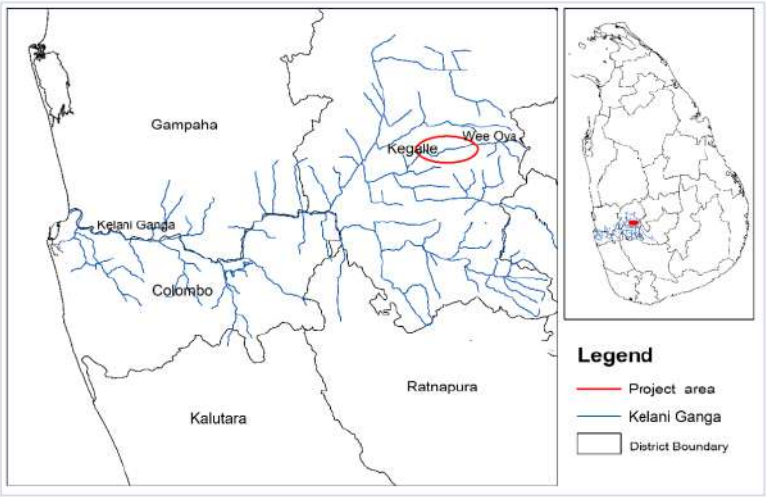


Figure 4-28: Location of the Project

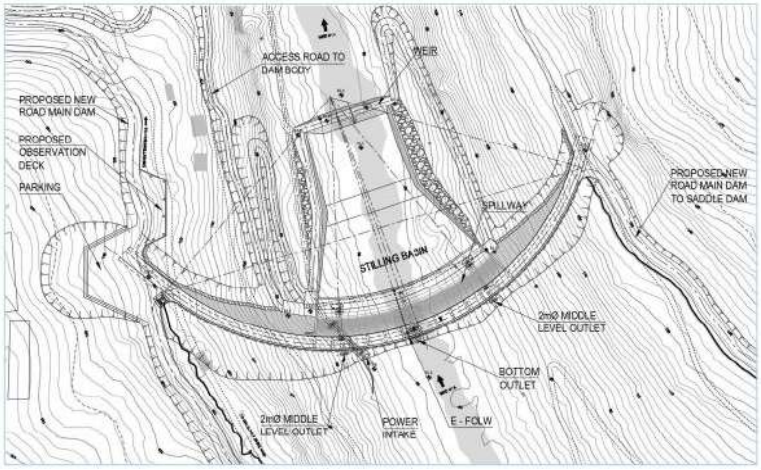


Figure 4-29: Layout of the Main Dam

At the moment this project is handled by the Ministry of Irrigation and the project planning branch is also supporting initial activities of project formulation. By now EOI has called for bidders for detailed designs of the project and received 11 responses from bidders both from local and foreign.
The Planning branch is involved in the EOI evaluations and also supporting project staff at the Ministry for other activities.

4.5.4 Staff Position

Table 4-12: Staff Position

No	Designation	Present Cadre	Approved Cadre Requirement	Deficit
1	Chief Engineers	01	01	-
2	Engineers	02	05	03
3	Management Service Officer	-	01	01
4	Development Officer	01	-	-
5	Draftsman	01	04	03
6	KKS	01	01	-

4.6 Designs Branch

4.6.1 Objectives

The main scope of the designs branch is to carry out detailed designs of the technically feasible projects identified during the studies of the project planning branch and also to undertake major designs of Irrigation Department.

4.6.2 Main Functions

- Carrying out studies related to Hydrological, Hydraulic, Structural Analysis considering the results of investigations done by Engineering Materials and Engineering Geology branches of the Irrigation Department.
- Engineering design of structures and preparation of construction drawings.
- Providing consultation for design and construction issues encountered at regional level.
- Knowledge sharing with other outside agencies.

4.6.3 Performance

a. Designing of Spillway Structure for Elle Wewa Reservoir Project (Revised)

The proposed Ellewewa Reservoir will be built across Kadigam Ara, about 1.0 km upstream of existing Piyadasa anicut and 1.0 km downstream of existing Thambawala anicut. The project envisages construction of Ellewewa reservoir across Kadigam Ara between Piyadasa diversion weir and Thambalawela Diversion weir to provide irrigation water to 1127 Acs of existing lands in Panamure Scheme and 350 Acs of new lands located in between Hulanda Oya and Kadigam Ara. This project is further expected to increase the water extraction quantity at Kolonna water supply project (which is located upstream of proposed Elle Wewa Reservoir Project location) up to 5,000 m^3/day to partially fulfill the drinking water requirement of the Kolonna and Panamure areas. Capacity of the proposed reservoir is 1.91 MCM.

Designs Branch has re-designed a clear overfull -side channel spillway with a chute for proposed Ellewewa reservoir in 2022 due to variations of site conditions.

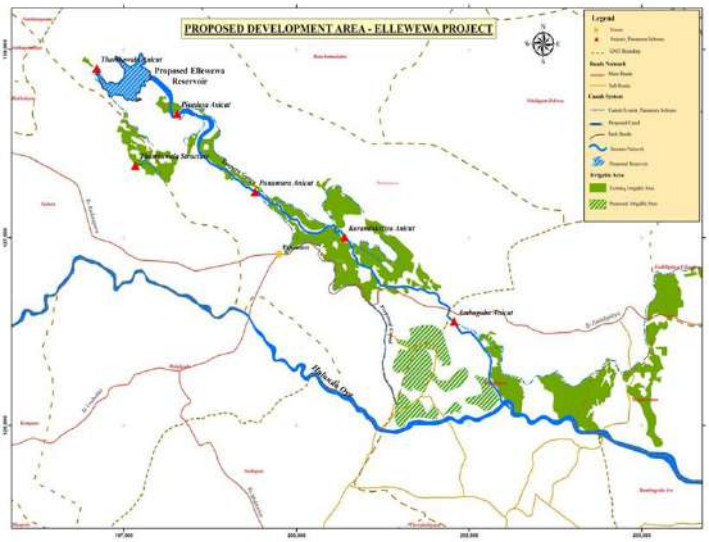


Figure 4-30: Proposed Development Area - Ellewewa Project

b. Designing of Samiyarkattu Anicut

Unnichchai scheme is located in Batticaloa district, Eastern province of Sri Lanka. The main dam constructed across Magalavattuwan River. It provides irrigation facilities to 21470 Acs of farmlands and is the main source of drinking water supply to Batticaloa district. The scheme farmlands are facilitating by canal system and river system under Unnichchi scheme. There are two main canals (LB main canal and RB main canal) and river network in downstream. Coffer dams or sand dams have been constructed across the river network for diversion of water from the river to farmland in the early stage of the scheme from time to time as these dams have been washed off during flood season. This reconstruction of sand dams makes difficulties in cultivation and is an extra expenditure. Therefore, most of the coffer dams or sand dams have been replaced by permanent Anicut with gated arrangement. Presently 14 numbers of permanent Anicuts are existing within the scheme. Samiyakattu Anicut is also one of the sand dams in Unnichchi scheme. This Anicut was proposed under Wari Saubhagya project to replace the sand dam. This Anicut facilitate 450 Acs paddy land during Yala and Maha season.

Geological investigation was carried out by the Engineering Geology Division of the irrigation Department. An Anicut with 12 bays with gate arrangement is proposed in the particular location and the designs have been commenced. Below figures shows the location of Samiyarkattu Anicut and the proposed Anicut site respectively.

Figure 4-31: Location map of Samiyarkattu Anicut

Figure 4-32: Proposed Anicut Site

c. Designing of spillway structure in proposed Yatimahana Reservoir project

The proposed Yatimahana Reservoir project has been located across Maha Oya near Yatimahana in Mawanella Divisional Secretariat Division of Kegalle District. Presently no significant development of the water resources of Maha Oya basin has been done although the water scarcity prevails in Service and Agriculture sectors, Urban and Industrial areas. Currently there are water extraction points in Mahaoya basin but there is a shortage in dry months (Feb, March). The current water demand of the basin is 147 MCM annual, expected to increase up to 247 MCM by 2050. Further extending, construction of trans-basin canal to Deduru Oya basin to cater irrigation demand of 67 MCM to Deduru Oya basin to meet Irrigation and potable water deficits is also proposed.

It is proposed to construct a Roller compacted concrete gravity Dam for the proposed reservoir which holds a capacity of 13.8 MCM. The reservoir also consists of radial gated spillway structure, bottom outlet, power house and earth fill embankment saddle dam. The feasibility study was carried out by the Mahaweli Consultancy Bureau.

The Design Branch having obtained the required information has started designing spillway structure of the proposed Yatimahana reservoir at conceptual level.

Figure 4-33: General layout

Figure 4-34: Location of the spillway site

d. Identification of Inundation area and flood depth at downstream due to spilling of Lower Malwathu Oya Reservoir using HEC-RAS software

Lower Malwathu Oya Spill was designed by the design branch in 2021. Currently, a physical model test is being carried out by the Hydraulics Laboratory of the department in order to verify hydraulic behavior of the spill. As an additional measure, a one dimensional flood inundation model is being developed in the design branch using HEC-RAS software incorporating Digital Elevation Model (DEM) with 16m resolution.

It is expected to find inundation area and flood depth of the downstream of the spillway for the discharge of 1000 year return period which is 3500 cumec. This will be helpful to assess flood risk of downstream areas.

4.6.4 Staff Position

Table 4-13: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit
1	Chief Engineer	02	02	-
2	Engineers	10	03 (permanent) 05 (temporary)	02
3	DOA	01	00	01
3	Management Service Officer	01	01	
4	Draughtsman	05	05	-
5	KKS	01	00	01

4.7 Water Resources Planning Branch

4.7.1 Objectives

Assessment of water resources in the river basins for river basin planning and development.

4.7.2 Functions

- Development of a National Water Resources Master Plan to achieve the long term economic, social, environmental and development goals of the country.
- Basin studies for prioritized river basins and preparation of river basin plans.
- Reviewing and updating the National Water Resources Master Plan based on river basin studies.
- Identifying water resources development projects and carrying out Hydrological studies.
- Providing consultancy services for other organizations in water resources planning upon request.

4.7.3 Performance

a. River basin studies for basin planning

- Hydrological Studies for diversion from Gin, Nilwala river basins Hydrological studies for water diversion from Gin and Nilwala river basins to Muruthawela reservoir and Chandrika Wewa were carried out. The water availability for diversion from Gin and Nilwala rivers, the feasibility of increasing cropping intensity of existing paddy lands, supplying current demands of drinking water, and new land improvement for commercial cultivation under Muruthawela reservoir were studied. The possible water diversion from Muruthawela reservoir to Chandrika Wewa and quantity of drinking water extraction from Chandrika Wewa for supplying Hambantota was also studied.
- Menik Ganga basin water allocation modeling using WEAP is in progress. Water Yield, Environmental flow, Potential Evapotranspiration, Precipitation, Effective Precipitation, Domestic Water Demands, Agricultural Demands, Kc file preparation is completed.
- WEAP water allocation model for Gin Ganga basin is updated with recent past data.
- Reassessment of the water availability of Malwathu Oya Reservoir which is under construction was completed with updated water demands to check the possibility for providing current demand of drinking water 27 MCM / year while providing water for other existing and proposed agricultural demands.

b. Providing technical assistance in Technical Review Panels for the studies / projects under Irrigation Department and Ministry of Irrigation

- Review of hydrological study in the report of “Feasibility study of proposed Gin Nilwala Diversion Project” prepared at the Ministry of Irrigation.
- Review of the “Feasibility study for the proposed flood control and multi-purpose development project in Gin Ganga basin” prepared at the Ministry of Irrigation.
- Review of the “Resettlement Action Plan (RAP) of the proposed Kumbukkan Oya Reservoir Project”.
- Review of the “Resettlement Action Plan (RAP) of the proposed Heda Oya Reservoir Project”.
- Participating in the review of the proposed “National Water Resources Policy”.

c. Technical assistance for other organizations

- One engineer contributed for "Preparation of Nationally Determined Contributions (NDC) for Sri Lanka" conducted by the Ministry of Environment.
- One engineer participated for the water availability assessment training using WaPOR database and contributed for the Water Productivity Assessment in Malwathu Oya basin conducted by FAO and IWMI.
- One engineer participated as a resources person for the workshop on WaPOR data analysis organized by FAO.

d. Checking the locations of wind, mini-hydropower and solar power project

The locations for proposed solar, wind and mini hydropower projects submitted by other organizations are checked at the WRP branch for any interference with the proposed water resources development plans stipulated on the Water Resources Master Plan and make recommendations to the Environmental Studies Branch to proceed with no objections. The number of proposed projects checked at the branch are given below.

- Mini-hydro Power Projects : 8
- Wind and Solar Power Projects : 128

4.7.4 Staff Position

Table 4-14: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit	Excess
01	Director of Irrigation	1	1	-	-
02	Chief Engineer	1	1	-	-
03	Irrigation Engineer	4	2	2	
04	Earth Resources Engineer	1	1	-	-
05	Management Assistant	1	-	1	-
06	KKS	1	1	-	-
07	Labours	-	1	-	-

4.8 Environmental Studies Branch

4.8.1 Objectives

Handling all the environmental matters pertaining to Irrigation Department

4.8.2 Functions

- Obtaining the Environmental Approval (EIA/IEE) from Central Environmental Authority or other Project Approving Agency for all the projects under the purview of the Irrigation Department.
- Issuing Irrigation Department clearances, whenever necessary for the projects handled by the other government institutes and private sector such as Highway Projects, Solar Power Projects, Wind Power Projects, Hydropower Projects, Mini Hydropower Projects, Industrial land fillings, Holiday Resort and Hotel Projects, Railway Projects, Transmission Line Projects etc.
- Representing Irrigation Department as the TEC member and reviewing EIA/IEE reports and Technical Evaluation Committee Meetings / submit comments / recommendations / suggestions to Central Environmental Authority and other Project Approving Agencies.
- Attending environmental related matters in the Irrigation Projects.
- Environmental monitoring works in government and private sector projects related to the Irrigation Department.
- Issuing recommendations, consent letters for river sand mining and land base sand mining etc.
- Issuing recommendations for de-silting in irrigation tanks.

4.8.3 Performance

a. Irrigation Projects – Environmental Impact Assessments (EIA) & Initial Environmental Examination (IEE)

Table 4-15: Irrigation Projects – EIA & IEE

	Project Name	Description
i.	Reinstatement of Kudawilachchiya Tank Project	The Project Approving Agency (PAA) is the Department of Wildlife Conservation (DWC). Final report submitted to PAA. Administration charge was paid to the Department of Wildlife Conservation. Up to 85% of the contract amount paid to the consultancy team in November 2022. TEC meeting was held and public hearing was conducted by PAA at end of the year 2022.
ii.	Kolellawatta Tank Project	The Project approving agency is Forest Department (FD). Draft EIA Report was submitted by the consultant and internal TEC meeting was held. Up to 70% of the contract amount was paid to the consultancy team.
iii.	Kumbukkan Oya Reservoir Project	The Project approving agency is the Forest Department. Final EIA report was submitted to Forest Department. TEC meeting was held and public hearing was conducted by PAA. 116 Public comments were received.
iv.	Mundeni Aru Basin Development Project	The Project Approving Agency is the Central Environmental Authority. Final EIA report from consultancy team was requested with proposed revision and it has been decided to make payment by deducting 6% of total contract amount and address only the Terms of Reference (ToR) issued by the Central Environmental Authority.

	Project Name	Description
v.	Yan Oya – Omarakada Irrigable Area	Preparation of Supplementary EIA Report for resettlements process of Omarakada area is done by Environmental Studies Branch. Draft Supplementary EIA was submitted to the Forest Department and TEC meeting was held and decided to update the report with comments of TEC.
vi.	Mahaweli Left Bank Lower Basin Development Project (Kinniya & Kanthale)	The Project approving agency is the Forest Department (FD). Draft EIA report was submitted to the Forest Department. Environmental approval process is in a difficult situation due to the problems occurring for land releasing from the Sugar Company. Therefore, DGI appointed a committee to take a decision on termination or continuation of the consultancy agreement for EIA.
vii.	Diyaheruma Tank Project	Project approving agency is the Central Environmental Authority. Technical issue on designs has been arisen.
viii	Rehabilitaiton of Aldamporuwa Tank and Rathnaella scheme	Project approving agency is the Central Environmental Authority and Draft Terms of Reference (ToR) was issued. Department of Archeology recommendation received for increasing the capacity of the tank. Geological Investigation was carried out by the Engineering Geology Branch. NRMC report and the Landslide Hazard Investigation report were requested from Natural Resources Management Centre and NBRO respectively. Preparation of IEE Report by Environmental Studies Branch is in progress
ix	Dematagala Reservoir Project	Consent of the Department of Wildlife Conservation was received to rehabilitate the access road of project. Requests made from Department of Archeology for Archeological Impact Assessment. Initial consent was not yet received from District Forest Officer, Anuradhapura.
x	Galgekandiya Tank Project	The Project approving agency is Forest Department. ToR received from PAA. Administration charges paid to the Forest Department. Mahaweli Consultancy Bureau was selected as the consultancy team for IEE report preparation and Interim report was submitted by MCB. Mobilization Advance paid to consultant. Initial consent received from Mahaweli Authority. AIA report was requested from Department of Archeology. Internal TEC comments for Interim report were sent to consultancy team.
xi	Proposed Irrigation Infrastructure Development Project of Himbiliyakada	The Project Approving Agency is the Department of Wildlife Conservation. ToR was received from Project Approving Agency and preparation of IEE report is in progress by the Environmental Studies Branch. Administrative charge was paid to Wildlife Conservation Department. Payment was done for the NBRO and Landslide Assessment Report received. A conditional approval received from Department of Archeology.
xii	Pekkulama Reservoir Project	Basic Information Questionnaire (BIQ) and Feasibility Report of Pekkulama Reservoir Project were submitted to Central Environmental Authority. Scoping meeting was held and it was decided that the PAA should be the Department of Wildlife Conservation. Therefore, ToR was requested from Department of Wildlife Conservation.
xiii	Helawa Tank Project	Basic Information Questionnaire (BIQ) and Feasibility Report of Helawa Tank Project were submitted to Central Environmental Authority.

b. Sand and Gem Mining & De-silting Projects

- Authority for issuing recommendation for sand mining projects was given to Regional Directors of Irrigation for a specific time period and circulars were issued for time extension as appropriately.
- Illegal sand mining locations reported from regions and public (complains) were sent to Geological Survey & Mines Bureau to take actions to stop.
- Approvals granted for 03 nos. of sand mining projects in Eastern province, 01 no of sand mining project in Southern Province ,2 nos. of sand mining projects in Western Province, 01 no of sand mining project in North Central Province and 03 nos. of sand mining project in Uva Province.
- Conditional approval has been given to de-silting 6 nos. of irrigation tanks.

c. Transmission Line Projects / Solar and Wind Power Projects

- Recommendation with conditions given for the Transmission Line Project from Matugama Grid Substation to Benthota Primary Substation (33 kV)
- Comments on Draft Initial Environmental Examination (IEE) Report of Proposed 132Kv Transmission Line Project from Kukule to Kalawana (Via Ayagama & Palindanuwara) were sent to Central Environmental Authority
- Recommendation with conditions given for the Re-construction of Transmission Line from Medagama – Ampara (70km length – 132Kv)
- Comments on Supplemental Initial Environment Examination (SIEE) Report for Solar Park in Siyabalanduwa sent to Department of Forest Conservation.
- No objection letter was given for Solar Power Project – Embilipitiya 03 SBSPII
- No objection letter was given for Solar Power Plant – Athurugiriya (2019/001/c-150) 5 MW
- No objection letter was given for Solar Power Projects – Mahindagama 1 & 2 (5 MW)
- No objection letter was given for Proposed Solar Power Project at Sewanagala & Sooriyawewa Divisional Secretariats in Monaragala & Hambanthota District. (60MW)
- No objection letter was given for the proposed 100MW Nilaweli Solar PV Power Project at Kuchchaweli in Trincomalee District.
- No objection letter was given for the proposed Kiriibban Wewa Floating Solar Power, Chandrika Wewa Floating Solar Power & Embilipitiya 4 SBS II (90) Solar Project.
- No objection letter was given for Installation of 9MW JCE Aralaganwila Solar Power Project at Aralaganwila, Polonnaruwa.
- No objection letter was given for Mannar Wind Power Project Phase I
- Comments on Initial Environmental Examination (IEE) Report of Proposed Mukkuthuduwa 10 MW Wind Power Project at Mukkuthuduwa, Puttalam were sent to Coast Conservation & Coastal Resources Management Department.
- No objection letter was given for Wind Power Project (Phase I) at Pooneryn in Kilinochchi District (100MW)
- No objection letter was given for Wind Power Project (Phase II) at Pooneryn in Kilinochchi District (133MW)
- Comments on Initial Environment Examination (IEE) Report of Proposed Mullikulam Wind Farm (MWPP – Phase III) with Grid Connecting 220 Kv Transmission Line and Wind Farm Collector Substation at Mannar District sent to Central Environmental Authority.
- Recommendation with conditions was given for Nakkadu Wind Power Project, Venkalai Wind Power Project and Nattan Wind Power Project.

d. Proposed Roads / Highways / Railway Projects

- Initial consent was granted to Road Development Authority for Ruwanpura Expressway Project – Phase II & III
- Preliminary approval was granted to Road Development Authority for the Gampaha Interchange in Central Expressway Project Section I (Kadawatha – Meerigama).
- Comments on Draft Environment Impact Assessment Report of Development of Four Lane Elevated Highway from New Kelani Bridge to Athurugiriya Phase II were sent to Central Environmental Authority
- Comments on Final Environmental Impact Assessment Report of Development of Four Lane Elevated Highway from New Kelani Bridge to Athurugiriya Phase II were sent to Central Environmental Authority
- Conditional recommendation was granted to Central Environmental Authority for the Proposed Kelani Valley Railway Line Improvement Program – Phase I Maradana to Angampitiya (38+380 km)
- Initial consent was granted to Road Development Authority for construction of Proposed Bridge across Benthara River Connecting Ittapana & Horawala Road (Non RDA)

e. Mini Hydro Power Projects

- Requests Received - 15 Nos.
- Approvals Granted - 08 Nos.

f. Holiday Resort and Hotel Projects (One Stop Unit – Sri Lanka Tourism Development Authority)

- Approval Granted - 03 Nos.

g. Other Projects (Approved)

- Effluent Discharge - 03 Nos.
- Town water supply & Sanitation Project - 01 No
- Solid waste management - 01 No
- Biomass & other power projects - 03 Nos
- Industrial Estate - 02 Nos

- Comments on Initial Environment Examination Report of Proposed Mix Development Project at Rajagiriya were sent to Central Environmental Authority
- Comments on Addendum to the EIA Report of Proposed Prison Relocation Project at Millewa, Horana were sent to Central Environmental Authority
- Comments on Addendum to the IEE Report of Proposed Underground Graphite Mining Project at Boralugoda were sent to Central Environmental Authority
- No objection was granted with conditions for Proposed Mix Development Project at Rajagiriya.
- No objection was granted with conditions for Proposed Underground Graphite Mining Project at Boralugoda

h. Attending to meeting & field Visit

- Meetings - 152 Nos.
- Field visit/Inspection - 15 Nos.
- Received EIA/IEE Reports - 25 Nos.

4.8.4 Staff Position

Table 4-16: Staff Position

	Service Category	Approved cadre	Available staff	Deficit / Excess
01	Director of Irrigation	01	-	01
02	Chief Engineer	01	01	-
03	Irrigation Engineer	02	04	(02)
04	Engineering Assistant	-	01	(01)
05	Technical Assistant	-	-	-
06	Management Service Officer	02	03	(01)
07	Draughtsman	01	-	01
08	Development Officer	01	01	-
09	Environmental Officer	-	-	-
10	Land Officer	-	-	-
11	Office Employee Service (KKS)	01	01	-
12	Labours	-	-	-

4.9 Land Use Division

4.9.1 Objective

Using qualitative and quantitative scientific information perform land use recommendations for irrigation and other development projects.

4.9.2 Functions

- Conducting general purpose and specific soil surveys.
- Determining all possible land use options for a given land and preparing a land use plan for the area.
- Producing soil maps, land use maps and potential land use maps in national, provincial, district, project and farm level.
- Providing soil data for the plan and design of irrigation projects.
- Making recommendations of crops and other land use types for irrigation projects.
- Providing water quality data of irrigation projects and other water resources.
- Making quantitative assessments of potential hazards such as erodibility, acidity, alkalinity and salinity.
- Conducting chemical and physical analysis of soil and water.
- Conducting research on soil properties and water quality.

4.9.3 Performance

Soil and Land Use Survey for the Nagadeepa Irrigation Scheme and the Kubukkan Oya RB Developing area were completed in the year 2022. Laboratory analysis was done for the soil and water samples, which were taken from following projects as well as for the samples received from other divisions.
Prepared soil and land use maps of these projects can be used in future land use planning.

a. Soil and Land Use Survey- Nagadeepa Irrigation Scheme (1012 ha)

Soil and Land Use survey in Nagadeepa Irrigation Scheme was started in May 2022 and was completed in June 2022. A detailed medium intensity soil survey was carried out and an irrigable area of 1711 ha has been surveyed. The soil map (1:10,000 scale) of the surveyed area was already completed and the Land suitability map is being prepared.

Figure 4-35: Describing a soil bore sample - Nagadeepa irrigation scheme

b. Soil and Land Use Survey- Proposed area of Kubukkan Oya RB Developing Area Project (546 ha)

As per the request made by the project director (Kubukkan Oya) and Addl. DGI (I,P&D), a detailed medium intensity soil survey was carried out for the proposed Kubukkan Oya RB developing area in order to prepare the land suitability map of the area.
Soil and land use survey of the Kubukkan Oya RB developing area (540 ha) commenced in September 2022 and was completed in October 2022. The soil and the land suitability maps (1:10,000 scale) of the surveyed area were prepared.

Figure 4-36: Examining the soils in the Kumbukkan Oya RB developing area

Figure 4-37: Landscape of the Kubukkan Oya RB developing area project

c. Water quality monitoring and salinity studies in Irrigation Schemes
Water quality monitoring study programme was started in order to prepare a set of data on irrigation water quality in major and medium tanks under the Irrigation Department. Tanks in the Ampara, Polonnaruwa, Anuradapura and Puttalam districts were selected. Although three sets of samples were scheduled to be taken from each reservoir, due to the prevailed fuel crisis in the year 2022, only one set of samples was taken. The samples that have been taken were analyzed for pH, EC, Ca^{2+}, Mg^{2+}, Na^{+}, K, CO_3^{2-} and $HCO^{-}_{3.}$ This program is currently in progress and will be continued.

d. Training field staff
Field and theory programs were conducted in the following places for soil surveyors, who were recruited in year 2014, 2016 and 2018.

- Nagadeepa Irrigation Scheme project area
- Kubukkan Oya RB Developing Project area

e. Soil and water quality tests performed by the laboratory of Land Use Division
The following analysis for soil samples and water samples were carried out in the Land Use Division laboratory in 2022.

Table 4-17: Soil samples analyzed in year 2022

Parameters/methods	No. of samples analyzed
$CaCO_3$	1
Ca^{+2}	1
C %	1
K+	1
P	1
N%	1

Table 4-18: Water Samples analyzed in year 2022

Parameters/methods	No. of samples analyzed
pH	140
Electric conductivity	140
Sodium	140
Potassium	140
Calcium	140
Magnesium	140
Carbonate	140
Bicarbonate	140
Chloride	140
Nitrate	88
Sulphate	140
Total alkalinity	14
Hardness as $CaCO_3$	8
Phosphate	14
Fe^{+3}	14

Figure 4-38: Conducting tests for water samples

f.Digital Map Production

The following digital maps were prepared in the year 2022 by the cartography section of the Land Use Division.

- Soil map of Nagadeepa irrigation Scheme (1:10,000)
- Land Use Map of Nagadeepa irrigation Scheme (1:10,000)
- Soil map of Kumbukkan Oya RB Developing Area map(1:10,000)
- Land Use Map of Kumbukkan Oya RB Developing Area map(1:10,000)

g. Purchasing Instruments

Micro pipettes, Polyethylene Wide –Mouth Sample Bottles (500 ml) and a Hot plate with a magnetic stirrer were purchased for the Land Use Division laboratory in the year 2022.

h. Establishment of water quality monitoring units

Laboratory inspections were conducted for the 'water quality labs' in Matara and Kandy during the year 2022. Purchasing of equipment and the proposed improvements for these labs could not be achieved, due to the prevailed economic situation in the country.

4.9.4 Expenditure during the year 2022

Table 4-19: Expenditure in Land Use Division during year 2022

Item	Vote Particulars	Allocation Rs. '000	Expenditure Rs. '000	Physical Progress %
Soil and Land Use Studies	282-2-2-2507-11-008-5	2150	2110	100
Kubukkan Oya RB Developing area project	282-02-03-17-2105-11	1026	1026	100
Conducting Theory classes and field training for soil surveyors recruited in 2014, 2016, 2018	282-02-02-0-2401-11-1	80	79	90
Water quality monitoring of reservoirs (5Mn)	282-2-2-2507-11-008-10	3260	2240	21
Establishment of water quality monitoring units(2Mn)	282-2-2-2507-11-009-9	750	480	22

4.9.5 Staff Position

Table 4-20: Staff Position of the Land Use Division in year 2022

No	Post	Approved Cadre	Present Cadre	Deficit/Excess
1	Director (Land Use)	01	01/Acting	0
2	Specialist officer	02	0	02
3	Research Officer	01	0	01
4	Assistant Soil Chemist	05	02	03
5	Superintend	03	0	03
6	Soil Surveyors	28	21	07
7	Soil Cartographers	05	04	01
8	Research Assistants	06	03	03
9	Management Assistants	04	02	02
10	Store keeper	01	0	01
11	Driver	04	02	02
13	Laboratory Assistants	05	03	02
14	Laboratory Labour	05	03	02

4.10 Information & Communication Technology (ICT) Branch

4.10.1 Objectives

The scope of ICT branch is to provide services related to ICT for other Sub Departments, Branches and Regions & Divisions.

4.10.2 Functions

This extends to minor repairs of ICT equipment, computer peripherals and CCTV System of the Head office premises maintenance, update and upgrade both hardware and software applications including the department web site (www.irrigation.gov.lk). In addition to that, identify the equipment requirement, update with the latest technology, preparation of specifications of ICT equipment and issuing of conformity certificates after procurements are done by this branch.

4.10.3 Performance

Table 4-21: Summary of jobs undertaken by ICT Branch during the year of 2022.

	Activity	**No of items repaired / No. of Incident**
01	Computer repairs	136 Nos.
02	Printer & Others affiliated equipment repair	50 Nos.
03	Repairs of Network systems	Head office
04	Facilitate to video conferencing activation	152 No. of meetings arranged.
05	Inspection of unserviceable computers & others Equipment's for issue disposal certificate	RDI office – Colombo (45items)
06	Repairs & Inspection of CCTV system in department premises	Head office, Hydraulics Branch, Engineering Material Building
07	Upgrading & maintained department website www.irrigation.gov.lk	42 No. of updates

4.10.4 Staff Position

Table 4-22 : Staff Position

No	Designation	Cadre Requirement	Available	Deficit
01	Director of irrigation	01	01	-
02	Chief Engineer	01	01	-
03	Assistant Director (ICT)	01	-	01
04	ICT Office	02	01	01
05	Development Officer	01	01	-
06	ICT Assistant	02	-	02
07	Field Assistant	01	-	01
08	Management Service Officer	01	01	-
09	KKS	02	02	-
10	Field Watcher	-	01	-
11	Instrument repairman	01	-	-

4.11 Geo Informatics Systems (GIS) Branch

4.11.1 Objectives

Providing GIS technical support and training for other Sub Departments, Regional Offices and Divisional Offices

4.11.2 Functions

- Create, Update and Maintain spatial data repository
- Preparation of GIS maps and databases for existing irrigation schemes and for new projects
- Carrying out of special GNSS Surveys for irrigation planning works and the MSL datum transfer
- Carrying out of specialized training for GIS for field staff
- Undertake GIS components of special projects
- Developing of Web GIS and maintaining and updating website

4.11.3 Performance

a. Publication of Web GIS Site

Following list of Maps have been added in the GIS web site in 2022 and can be downloaded as an image file format. These maps include Dam locations, Reservoirs, River Basins, Access Roads, Irrigable Area and Reservoir catchments.

1. Eru Wewa
2. Keerikkulama
3. Periyakulama
4. Uttimaduwa
5. Nachchaduwa
6. Talangama
7. Awirihena
8. Kahakurullan Pelassa
9. Kandiyapita
10. Mahawewa
11. Alugalge
12. Balaharuwa
13. Manankattiya
14. Parangiya Wadiya
15. Aiyathige Wewa
16. Padaviya
17. Wahalkada
18. Wadamunai
19. Weligahakandiya Kulam
20. Kaddumurivu
21. Abakola Wewa
22. Maha Galgamuwa
23. Jaya Wewa (Palukadawala)
24. Usgala Siyabalangamuwa
25. Hulugalla Wewa
26. Rambaken Oya
27. Ethimale
28. Kotiyagala
29. Muthukandiya
30. Saddatissa
31. Yudaganawa
32. Sugaladevi
33. Aluthpahala Kepu Ela (Kumburuhena Wewa)
34. Dambarawa
35. Dehigama
36. Nagadeepa
37. Sorabora Wewa
38. Parakrama Samudraya

b. Giants Tank Irrigation Scheme

Giants tank Issue trees were updated and field mobile map also introduced with all details for field officers.

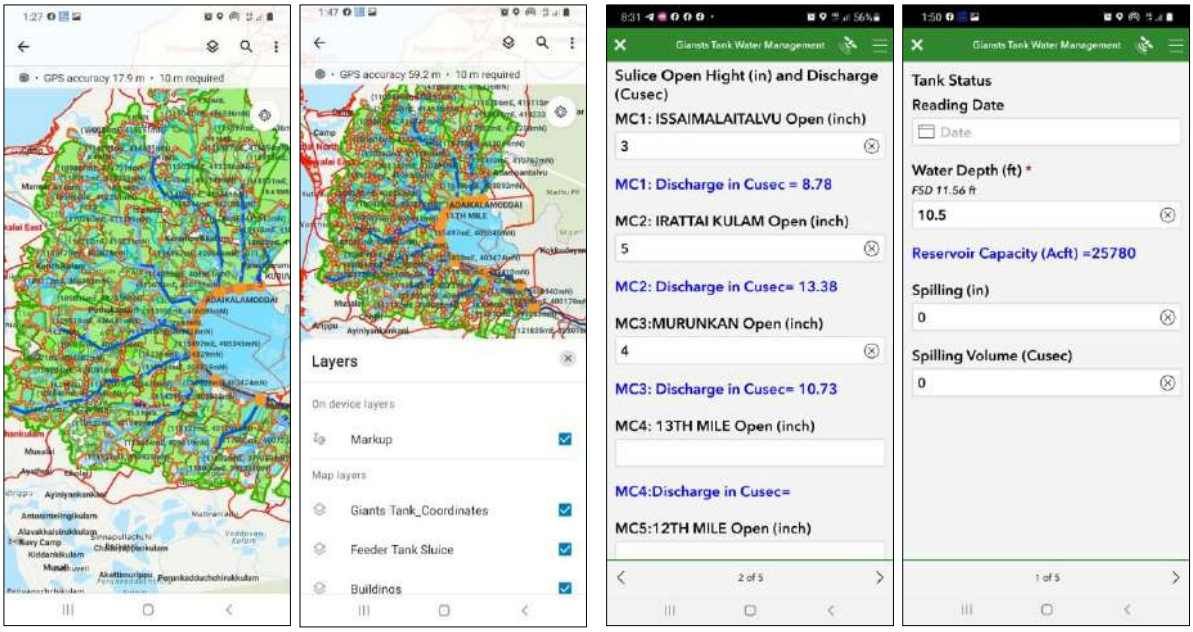


Figure 4-39: Giants Tank Irrigation scheme

c. Detail Scheme Web Maps for Akathimuruippu and Minipe Schemes

GIS and related technique have been introduced to these schemes and displayed information on web map. This web map intergrated inventory data and operation data with GIS capability to understand the spatial features of scheme hydro data. Public can access this web based application thought GIS web portal of Irrigation Department website.

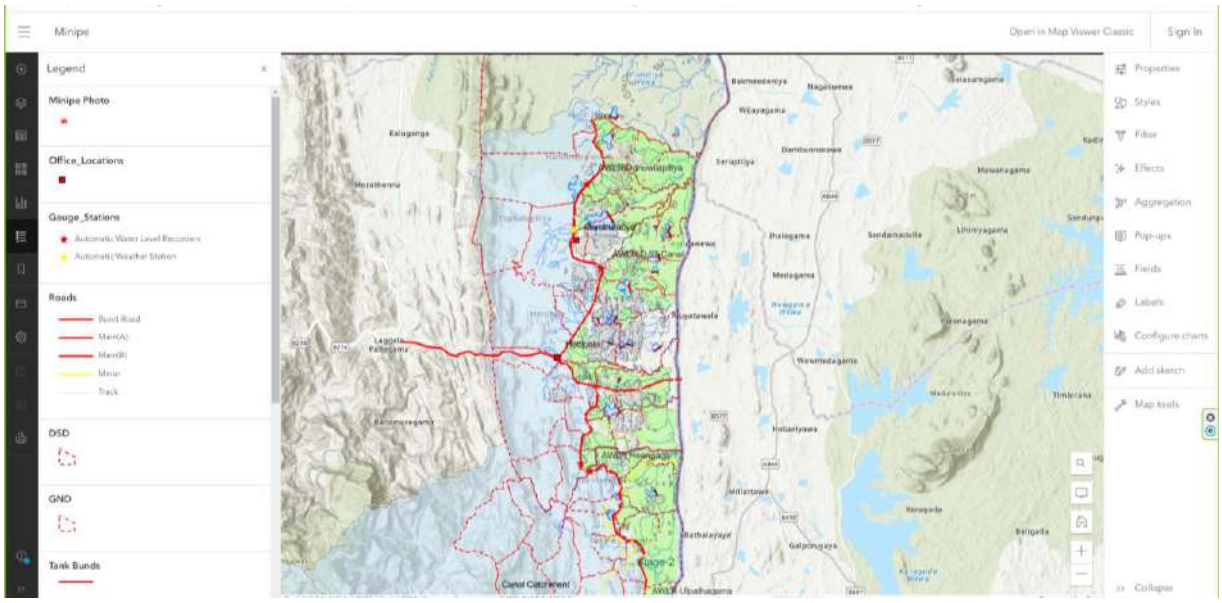


Figure 4-40: Detail Scheme Web Maps for Akathimuruippu and Minipe Schemes

d. Web GIS Application – River Water Level and Reservoir Status

The goal of the GIS Branch in Irrigation Department is to provide geospatial support that enables this institution to prepare and respond to emergency situations effectively in real time with high degree of efficiency. The GIS Branch supports to provide flood warning and water management operations with global access to GIS data, tools and services that are used to visualize operations and improve our responses. It is to raise the awareness on the added value of GIS, and expand GIS capacity of the department by leveraging the recent advancements by adding in the form of dashboards to simplify and convenient to grasp information by first appearance.

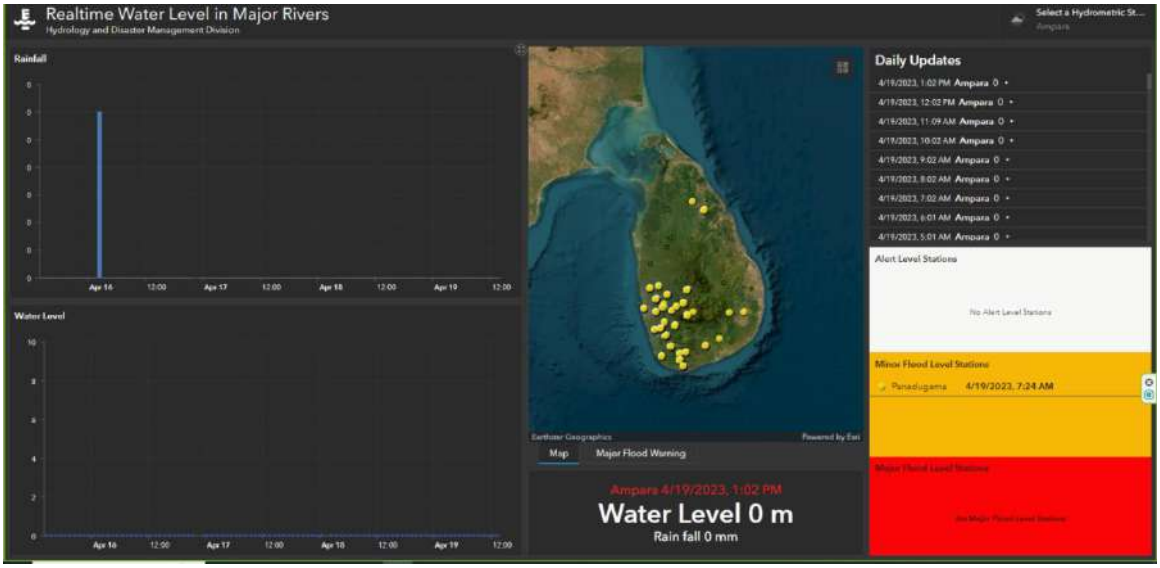


Figure 4-41: River Water Level and Reservoir Status

e. Web GIS Application - Scheme wise Hydro Data

The Geospatial data platform, which includes technical and socio-economic data of each and every scheme comes under the Irrigation Department was updated. This provides all technical details in one page so that users can access through the GIS web portal.

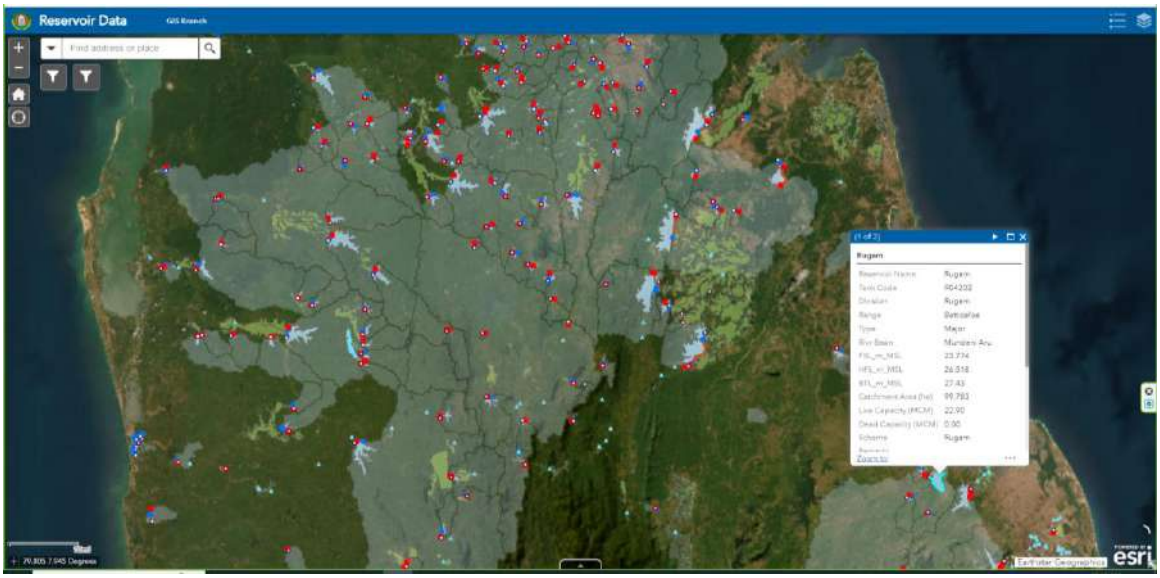


Figure 4-42: Scheme wise Hydro Data

f. Data Collection and GNSS Surveys

GNSS Survey in minor tanks of Akathimuruippu Scheme and prepared a detailed scheme map published in the GIS web portal in Irrigation Departmental website as a Web map application.

4.11.4 Staff Position

Table 4-23: Staff Position

No	Designation	Approved Cadre	Present Cadre
01	Chief Engineer	1	1
02	Earth Resource Engineer	3	3
03	Engineering Assistant	6	5
04	Development Officer		1
05	Management Service Officer	1	0
06	KKS	1	1

4.12 Engineering, Scientific & Technological Services (EST) Division

4.12.1 Objectives

This branch has been established a long time before in the Department and it was re- established under the restructuring of the Department in 2013 according to the public administration policy to assist Engineering Service Board functions of the Ministry of Public Administration. This branch is managed through the Director of Irrigation (EST), Chief Engineer (EST), Irrigation Engineer (EST) and administrative officer (Unit 01). The branch is coming under the purview of Addl. Director General of Irrigation (Investigation, Planning & Design).

There is one Director of Irrigation, one Chief Engineer and one Irrigation Engineer.

4.12.2 Functions

- General Administration functions and supervision of all the relevant fields of Engineers, Engineering Assistants, Accountants, Scientific service, Additional Director General, Director Admin, Legal Officer, Institutional Development Officer, Instrument Superintendent, Drilling Superintendent.
- Human Resource Development of Engineering, Scientific & Technical Services.
- Assist DGI/Addl. DGI (I, P&D) – for the Management of Human Resources of Engineering, Scientific and Technical Services.
- Capacity building of EST services in collaboration with the Training Branch.
- Upgrade and update of Irrigation Department manual.
- Preparation of list of duties for EST services.
- Organizing annual transfer board/ appeal board for Engineers and Engineering Assistants and represent as a member of the transfer board.
- Any other functions assigned by DGI/ Addl. DGI (I, P&D)

4.12.3 Performance

In 2022 there was major change in numbers of existing Engineers and Engineering Assistants' cadre. According to the circular 14/2022, 14/2022(i), 14/2022(ii), many Engineers have applied for No pay leave out of the Island and within the island. Further the government has strictly announced the age of pensioner as 60 and there is no new recruitment. Due to that 10 numbers of senior Engineers have retired on the same day on 31.12.2022. This has never happened earlier in the Irrigation Department's history. Due to huge fall in the numbers of Engineers, Engineering, Scientific & Technological Services (EST) Division had to carry huge workload within the short duration. Even though, it showed the following performance.

a. All the pension procedures are followed correctly and documents have been submitted to the pension department on time.
b. All the grade promotions were recommended and forwarded to Engineering Service Board for approval of the Public Service Commission and received all the promotions.
c. Further to these routine works; annual transfer of Engineers and Engineering Assistants were performed. It was the major and critical task at the moment because there are 100 deficits in Engineers approved cadre. Therefore, it was critical to assign a suitable person at suitable

place to carry the works efficiently with consideration of the economic crisis of the country, priority of the officer, seniority level, and service requirement.

d. Other administration functions such as Increments, car permit applications, Retirement papers, Document for Special Grade Promotion, secondment release to special projects were attended without delay.
e. In this 2022, there are 32 Engineers and 10 Engineering Assistants have applied for no pay leave according to the circular 14/2022, 14/2022(i), 14/2022(ii), all the relevant procedures are followed to get all the required documents and to get the approval from the ministry.
f. Due to the deficit of Engineers, it is informed to ministry and followed all the procedures to get the engineers from available departments and boards.

After annual transfer decision, appeal board decisions, transfer decision amendment 1 and 2, the re-view of existing Engineers cadre of Head Office, Regions, Zonal Offices, Divisional Offices and Special Projects and approved cadres are given in table below.

Table 4-24: Position of Approved cadre and vacancies as at end of December 2022

Designation	Grade	Approved Cadre	Active Service	Vacancies	Remarks
Sri Lanka Engineering Services					
Director General of Irrigation	Civil Special Grade	1	1	-	-
Addl. Director General of Irrigation	Civil Special Grade	4	4	-	-
Director of Irrigation	Civil I	36	34	02	-
Directors	Mechanical I	3	3	-	-
Chief Engineers	Civil I	40	40		Acting-17
Chief Engineers	Mechanical I	3	3	-	Acting-03
Engineers	Civil III/ II	229	185	44	-
Engineers	Mechanical III/ II	25	23	02	-
Earth Resource Engineers	E.R. III/II/ I	40	38	02	-
Engineers	Electrical III/II/ I	01	-	01	-
Total		**382**	**331**	**51**	
Sri Lanka Accountants' Service					
Chief Financial Officer	Special Grade	01	01	-	-
Chief Accountant	I	01	01	-	-
Chief Accountant (Accounts & Estimates)	I	01	01	-	-
Accountant	III/II	20	18	02	
Chief Internal Auditor	I	01	01	-	
Total		**24**	**22**	**02**	

Designation	Grade	Approved Cadre	Active Service	Vacancies	Remarks
Sri Lanka Administrative Service					
Addl. Director General (Admin)	I	01	01	-	
Director (Admin)	I	02	02	-	
Asst. Director / Deputy Director (Admin)	III/II	02	-	02	
Asst. Director / Deputy Director (Land)	III/II	01	-	01	
Asst. Director (ICT)	I/III	01	-	01	
Total		**07**	**03**	**04**	
Sri Lanka Scientific Service					
Director (Land Use)	I	01	01	-	
Hydrological Data Superintendent	III/II	01	-	01	
Hydrological Field Superintendent	III/II	01	-	01	
Engineering Materials Superintendent	III/II	01	-	01	
Civil Engineering Materials Survey Superintendent	III/II	01	-	01	
Hydrological Superintendent	III/II	01	-	01	
Land Use Superintendent	III/II	03	-	03	
Chief Drawing Office Assistant	III/II	01	-	01	
Specialist Officer (Land Use)	III/II	02	-	02	
Assistant Soil Chemist	III/II	05	02	03	
Research Officer (Land Use)	III/II	01	-	01	
Geologist	III/II	02	02	-	
Instrument Superintendent	III/II	01	01	-	
Total		**21**	**06**	**15**	
Engineering Assistant Service					
Divisional Assistant	Special	65	-	65	
Engineering Assistant	III/II/I	636	525	111	
Total		**701**	**525**	**176**	
Institutional Development Officer Service and Legal Officer Service					
Legal Officer	III/II/I	01	01	-	
Institutional Development Officer	II/I	08	07	01	
Budget Assistant	III/II/I	01	-	01	
Total		**10**	**08**	**02**	

4.12.4 Staff Position

Table 4-25: Staff Position

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
01.	Director of Irrigation	1	1	
02.	Chief Engineer	1	1	
03.	Irrigation Engineer	1	1	
04.	Engineering Assistant	1	1	
05.	Development Officer	4	1	3
06.	Draughtsman	1	-	1
07.	Management Service Officer	1	-	1
08.	K.K.S.	3	2	1
09.	Multipurpose Development Assistant	-	1	Served as K.K.S.
	Administrative Unit 01			
10.	Administrative Officer	1	0	1
11.	Chief Management Service Officer	1	1	
12.	Development Office	1	2	(1)
13.	Management Service Officer	8	4	4
14.	(2014/25) Labour	-	2	Served as K.K.S.
	Confidential Branch			
15.	Chief Management Service Officer	1	-	1
16.	Management Service Officer	2	1	1
17.	K.K.S.	3	-	1
18.	(2014/25) Labour	-	1	Served as K.K.S.

5 Construction & Development Sub Department (C & D)

The Construction and Development sub department is mainly responsible for the implementation of irrigation infrastructure projects after completion of planning and design. Major Construction branch and Regional Development branch are the two branches under this sub department.

5.1 Major Construction Branch

5.1.1 Objectives

Construction and Development of new large scale Irrigation Projects

5.1.2 Functions

The main functions of the branch:

- Construction of Irrigation and settlement projects for the conservation diversion and distribution of water under gravity and lift Irrigation to new and existing lands for cultivation by farmers and food crop productions
- Incorporation of hydropower as far as possible in the construction of Irrigation and settlement project to enhance the electrical energy resources

The construction activities carried out through the Project office headed by Project Directors, Chief Residential Engineers appointed by the Director General of Irrigation.

Functions:

- Approval and sanctioning of detail cost estimate of major projects
- Finalizing of contract documents and management
- Establishment of PD/DPD/CRE/RE's office and provide necessary resources
- Ensuring the implementation of approval work programme, physical and financial controlling including monthly meetings and submission of progress to relevant authorities
- Revision of cost arising from modification of proposals and designs during execution
- Monitoring and evaluation

5.1.3 Project wise allocation Distribution and Expenditure

Table 5-1: Project wise allocation distribution and expenditure

Project	Allocation Rs. Mn.	Expenditure during year 2022 Rs. Mn.	Cumulative Physical Progress %
Deduru Oya Reservoir Project	50.00	40.73	99.90
Yan Oya Reservoir Project	800.00	616.282	85.68
Morana Reservoir Project	130.00	82.483	98.22
Kumbukkan Oya Reservoir Project	127.00	98.894	1.96
Mundeni Aru Reservoir Project	253.00	49.780	2.29
Wellassa Navodaya Project	150.00	148.993	58.67
Kudawilahchiya Reservoir Project	86.00	56.753	4.952
Dematagala Reservoir Project	10.00	1.653	0.25
Ellewewa Reservoir Project	100.00	93.199	14.65
Himbiliyakada Reservoir Project	271.00	221.610	5.25
Uma Oya Downstream Development Project	2,060.00	2,006.672	74.05
Total	**4,037.00**	**3,417.049**	

Out of the above Projects, Deduru Oya Reservoir Project, Yan Oya Reservoir Project and Morana Reservoir Project were planned to complete at the end of 2022. But due to the present economic crisis of the country, remaining work of those projects were not completed during year 2022 and continued the projects for next year.

5.1.4 Projects under Major Construction Branch

a. Deduru Oya Reservoir Project

Deduru Oya Reservoir is located at the Kurunegala and Puttalam Districts which have 75 MCM capacity and 6,115ha of existing and 4,817ha irrigable area. It was decided to exploit the Deduru Oya water resources in improving the cropping intensity of existing agricultural lands under major schemes specially Inginimitiya reservoir, Puttalam district and minor Irrigation schemes and to develop new lands in the Mee Oya and Deduru Oya basins in view of enhancing productivity.

This project has been divided into two projects.

- Deduru Oya Reservoir Project
- Lower Deduru Oya Development Project (Sengal Oya Project)

Lower Deduru Oya Development (Sengal Oya) project is a part of Deduru Oya project which is implemented to rehabilitate the existing Sengal Oya anicut, main canal and minor tanks. Under improvements to anicut, strengthening the anicut banks by constructing sheet pile retaining walls was done.

Project period	: 2005 - 2021
TEC (Revised)	: Rs. Mn. 13,540.00
Total Expenditure (Up to end of 2022)	: Rs. Mn. 13,472.58
Allocation for year 2022	: Rs. Mn. 50.00
Expenditure during year 2022	: Rs. Mn. 40.73

Main component of the project

Overall Physical Progress : 99.9 %

Project Completed in year 2021. But land acquisition and compensation item remained with 95% progress.

Benefits

- Augmentation of Irrigation tanks through a network of canal system to 2400 ha of paddy lands under a minor irrigation system.
- Develop 243 ha of new lands by providing lift irrigation facilities.
- Augmentation of Inginimitiya Reservoir supplying water to 3715 ha of existing agriculture lands under major/medium irrigation scheme in lower Mee Oya basin.
- Improve irrigation water supplies to 1000 ha of existing agricultural lands minor irrigation systems along the Trans –basin canal.
- Providing Irrigation water to 400ha of new lands in lower reaches of Mee Oya and 400 ha of new lands under Ridi Bendi Ella
- Generation of Hydro power 1.5 MW
- Supply drinking water to 50,000 families in Kurunegala and Puttalam District.

Work completed during year 2022

Land acquisition & compensation has not been completed during year 2022.

b. Yan Oya Reservoir Project

The dam was constructed across Yan oya at Wahalkada, Horowpathana in Anuradhapura District. It is located upstream of existing Yan oya anicut. The project envisages constructing about 2.35 km long main earthen dam and 3.6 km long saddle dams and 34 km long canal system in LB, RB and Bottom Outlet to irrigate 8,700 ha of target lands including 1,515 ha of new lands in Anuradhapura and Trincomalee Districts. Existing lands include 2,630 ha under Padaviya scheme where there is a severe water deficit especially during Yala season. It will also provide water to existing lands under Yan Oya Anicut (840 ha), minor scheme in Mee oya river basin (2,735 ha) and existing minor Irrigation schemes (980 ha) under the LB & RB scheme.

Project period : From 2012 to 2022
TEC (Revised) : Rs. Mn. 48,355.3
Total Expenditure (Up to end of 2022) : Rs. Mn. 36,891.05
Allocation for year 2022 : Rs. Mn. 800.00
Expenditure during year 2022 : Rs. Mn. 616.282

Main component of the project
Overall Physical Progress : 85.68 %

Table 5-2: Item-wise physical progress for the year 2022

No	Activity	Allocation 2022 (Rs. Mn.)	Expenditure 2022 (Rs. Mn.)	Cumulative Progress (%)
1	Construction of Dam	800.00	616.282	100
2	Construction of LB canal			100
3	Construction of RB canal			100
4	New IFF			92
5	Issanwewa Headwork			81
6	Land acquisition and resettlement			95
7	Improvement of 07 Nos. of Existing system at Trincomalee Districts			13
8	Improvement of Pulmodai Anicut System			28
9	Infrastructure facilities at Resettlements			90
10	Environmental & Wildlife management			50
11	Archeology management			0

Benefits

- Solve the water shortages of the Padaviya tank, Wahalkada tank, Neela panikkam kulam & Yan Oya Anicut.
- Supply of drinking water for the people of both Anuradhapura & Trincomalee districts.
- Benefitting Sinhala, Tamil & Muslim communities. More than 7000 farmer families will be directly benefited by this project and more than 3000 families will be benefited through employment in services.
- Farmers will be able to increase the cropping intensity nearly by two-fold with increased supply of water and thereby can generate more income.
- Incremental area of cultivation under this project will be 2622 ha for paddy and 4373 ha for OFCs.

Work completed during year 2022

- Construction of RB Sluice, Spill, bifurcation structure, feeder canal, FC1 & FC2 canal of Issanwewa Tank
- Kohombagas Wewa paddy lands and Irrigation development

Any other special matters or problems

- Providing alternative paddy land to the landowners who lost their paddy land during the construction of the left bank main canal of Yan Oya Reservoir.
- Providing additional compensation to families who are unable to provide alternative paddy land due to insufficient land in Anuradhapura district after losing their paddy land during the construction of Yan Oya Reservoir.
- Compensation for lost crops to landowners who lost their cultivation due to the construction of the Yan Oya Left Bank Main Canal (2020/2021 Maha to 2023 Yala).

Figure 5-1: Developed Irrigable Lands

Figure 5-2: Issanwewa Main Canal

Figure 5-3: Issanwewa bifurcation structure

c. Morana Reservoir Project

Morana reservoir is constructed across Ulthitiya Oya at a location called “Morana” which is situated at Badulla district and water is diverted to Rotagolla wewa in order to overcome the shortage of water at Nagadeepa Scheme. Rotagolla wewa is located at the downstream of the Nagadeepa scheme. 1,000 acres of existing paddy lands are planned to be irrigated directly from Rotagolla wewa. In addition to that, proposed to irrigate 500 acres of new lands directly under and LB canal.

Project period	: 2012 - 2021
TEC	: Rs. Mn. 1,700.00 (Revised 2900.00)
Total Expenditure (Up to end of 2022)	: Rs. Mn. 2,655.33
Allocation for year 2022	: Rs. Mn. 130.00
Expenditure during year 2022	: Rs. Mn. 82.483

Overall Physical Progress : 98.22 %

All construction works have been completed, but land acquisition works remain for year 2022. Balance work of IFF remains to be completed after land issue settled.

Benefits

- Provide irrigation facilities for 570 Ha of new and existing lands and benefits for 1300 farmer families
- Supply drinking water to 500 families and domestic water to the areas in Morana, Mahalunuka, Kudalunuka, Tissapura, Aluketiyawa and Yalwela GS Division
- improve the livelihood activity of the people
- Conducting training programs in Beekeeping
- Conducting programs related to inland fisheries

Work completed during year 2022

- Construction of stop logs has been completed.

Any other special matters or problems

- No allocation to pay the compensation for 100 acres of Eldeniya paddy lands.
- Valuation has not completed yet from Valuation Department for the lands acquired under LB Main Canal
- No allocation for the O&M works of Morana Reservoir. Hence it was difficult to supply water to Nagadeepa scheme.

d. Kumbukkan Oya Reservoir Project

Proposed development plan includes construction of new multipurpose reservoir under the Kumbukkan Oya project. It is situated in Monaragala District which is having capacity of 48 MCM. Also having about 10, 000 acres of irrigable area and about 5,000 families will be benefited.

Project period	: 6 years
TEC (Revised)	: Rs. Mn. 32,397.3
Total Expenditure (Up to end of 2022)	: Rs. Mn. 417.19
Allocation for year 2022	: Rs. Mn. 127.00
Expenditure during year 2022	: Rs. Mn. 98.894

Overall Physical Progress : 1.96 %

Benefits

- Increase of the irrigable area. (Expect to increase the Irrigable area to 13,415 Ac. Existing area is 1,000 Ac)
- The supply of domestic and industrial water (12 MCM per annum).
- Significantly contribute to the control flood
- Hydro power generation (16.1Gwh per annum)
- The improvement of the ground water table of the area.

Work completed during year 2022

- Engineering survey of dam site, quarry site, power houses, adits and tunnel.
- Geological investigation of dam site, quarry site, surge shaft and adit portals.
- As-built survey of LB irrigable area in Monaragala DS division.
- Engineering survey of RB irrigable area, inundation area and hazard zone.
- Preparation of land use map for RB irrigable area (field work completed).
- Engineering survey of Nugamandiya (RB) anicut, Hulandawa (LB) anicut and Irrigation system development (Palukapitiya and Wattarama tanks).
- Surveying for LSS and CSS of proposed LB and RB canal.
- Preliminary design and cost estimation for head works up to powerhouse.
- Construction of a low-level access road.

Any other special matters or problems

- EIA approval has not been received yet.

Figure 5-4: Geological Investigations in Nugamandiya Anicut

Figure 5-5: Construction of Project Director's Office

e. Mundeni Aru Reservoir Project

The proposed development plan includes construction of new multi- purpose reservoirs Rugam Kithul Wewa and Maha oya for the Mundeni Aru basin. Mundeni Aru is situated in Batticaloa and Ampara Districts where the Rugam Kithul reservoir is having 58 MCM and Maha Oya reservoir is having 80 MCM capacities. This will benefit to increase cropping intensity up to 2.0. Under this project, 6,756 acres of new irrigable area will be added to the existing irrigable area of 9,756 acres.

Project period	: 6 Years (From 2021 to 2027)
TEC	: Rs. Mn. 24,141.00
Total Expenditure (Up to end of 2022)	: Rs. Mn. 347.23
Allocation for year 2022	: Rs. Mn. 253.00
Expenditure during year 2022	: Rs. Mn. 49.78
Overall Physical Progress	: 2.29 %

Benefits of the Projects

- Increase cropping intensity up to 2.0
- Provide domestic and industrial water supply
- Control the flood
- Improve the groundwater table
- Integrated water resource management
- Crop diversification
- Increasing sustainable livestock productivity

Work completed during year 2022

- Social Survey
- Blocking out of Re-settlements
- Construction of office building
- Demarcation of reservoir boundary
- Land acquisition completed upto Section 4

Figure 5-6 Construction of office building for the PMU

Figure 5-7 Social Survey

f. Wellassa Nawodaya Project

Wellassa Nawodaya project is implemented to rehabilitate the irrigation system of Uva Province to mainly facilitate to the agriculture and domestic water supply. It will also increase other field crops cropping intensity.

Project period	: 04 years (From 2016 to 2019)
TEC (Revised)	: Rs. Mn. 2500.00
Total Expenditure (Up to end of 2022)	: Rs. Mn. 1,180.13
Allocation for year 2022	: Rs. Mn. 150.00
Expenditure during year 2022	: Rs. Mn. 148.99

Overall Physical Progress : 58.67 %

Benefits

- Improved effective water storage capacity of small tanks and improved conveyance efficiency of irrigation canals.
- Modernized irrigation system with flood and drought mitigation measures.
- Enhanced agricultural productivity of Monaragala District and thereby upgraded the living status of the farming community.

- Improving the infrastructure of agriculture roads and facilitating the marketing of agricultural products.
- Capacity building of officers and farmers who engage in agriculture and irrigation management.
- Supply of water for domestic use.

Work completed during year 2022

- The Spill of Pailegama Tank has been completed.
- Excavation of core-trench of Uraula tank has been completed.
- Construction of the seating area in upstream and steps in downstream of DetagauwaTank have been completed.

Any other special matters or problems

- Tank cannot be filled due to encroachments in Tank bed of Detagamuwa tank.
- Sluice cannot be completed as the RDA did not complete the construction of sluice barrel of Detagamuwa Tank.

Figure 5-8 Construction of Uraula Tank

g. Kudawilahchiya Reservoir Project

Kudawilachchiya is an ancient, abandoned tank located inside the Wilpaththu national park in Maha Wilachchiya Divisional Secretariat Division in Anuradhapura District. It has been built across Weli Oya, a tributary of Moderagam Aru which falls into the sea at Pook Kulam in Mannar District.

Under the Kudawilachchiya reservoir Project, it is envisaged to restore the ruined Kudawilachchiya tank. The main purpose of restoration is to supply water to the NWS&DB for drinking and domestic water to part of the village in Mahawilachchiya DS division. The second objective of the restoration of this tank is to supply drinking water to the wild animals in Wilpaththuwa national park.

Project period	: 03 Years (2021-2023)
TEC	: Rs. Mn. 6000.00
Total Expenditure (Up to end of 2022)	: Rs. Mn. 159.40
Allocation for year 2022	: Rs. Mn. 86.00
Expenditure during year 2022	: Rs. Mn. 56.753

Main component of the project

There is an earthen embankment in ruins at the location. It is breached at several places. This old embankment was restored to form the Kudawilachchiya tank. The dam is 2600 m long with rolled earth fill material. Designed dam height is 12.6 m with a capacity of 23 MCM.

Overall Physical Progress : 4.952 %

Main construction activities have been delayed due to EIA approval.

Benefits of the Project

- Supply of drinking water to 25,000 people in Mahawilachchiya DS Division
- Increase the cropping intensity of Maha Wilachchiya major irrigation scheme from 1.57 to 2.0
- Providing water to wildlife in the Wilpaththu National Park
- Ensuring the environmental flow along Madaragam Aru which is flowing through the national park. This would indirectly support groundwater recharge
- Reduction of Human Elephant conflicts
- Protection of Archeological sites from further damage by Vandals
- Supply of water to Oyamaduwa Pharmaceutical Industrial Zone.

Work completed during year 2022

- Kiralpatiyawa tank bund and access road

Any other special matters or problems

- EIA approval still not received.

Figure 5-9: Spill gates of Walanthaliyawa Tank

Figure 5-10: Spill tail canal of Walanthaliyawa Tank

h. Dematagala Reservoir Project

The Dematagala tank is in Kahalla village in Palagala Divisional Secretary's area on the border of Anuradhapura District. The tank is an ancient, abandoned tank in the jungle across Moragolla Oya. It is proposed to restore the tank to increase the cropping intensity of village tanks in Palagala Agrarian Services Divisions. Project is to augment the Dematagala Tank with diversion of water from Hevan Ella Oya by constructing a diversion anicut at the selected location. Water stored in Dematagala tank will be conveyed to village tanks through the main canal traversing through the villages to feed village tanks.

Project period	: 03 Years (2021-2023)
TEC	: Rs. Mn. 2230
Total Expenditure (Up to end of 2022)	: Rs. Mn. 1.91
Allocation for year 2022	: Rs. Mn. 10.00
Expenditure during year 2022	: Rs. Mn. 1.653

Main component of the project

The Tank capacity is 2.32 MCM (1881 Acft.) with an inundation area of about 90.87 Ha of bare lands and mostly replanted forest. Total length of the bund after improving the existing bund is 533m long. Design bund top level is 160m above MSL and the maximum height of the bund is 11.79m after the restoration.

Overall Physical Progress : 0.25 %

Benefits of the Project

- Increase of cropping intensity from the present-day value of 0.6 to 1.5 which will ultimately reduce the poverty level of the farming community.
- Overall development of the project area (agricultural roads, access to market, etc.) by the project interventions and thereby uplifting the socio-economic conditions of the farmers as a whole.

Any other special matters or problems

- TOR for the EIA not issued by the Forest Department.

i. Ellewewa Reservoir Project

Proposed Elle Wewa Reservoir is located at Viralagala village in Embilipitiya Divisional Secretariat area in Ratnapura district. The capacity of the proposed reservoir is 1.91 MCM. The project envisages construction of a reservoir across Kadigam Ara between Thambala anicut and Galle Piyadasa anicut to provide irrigation water to 1127 acs of existing lands in Panamure scheme, 350 acs of new lands located in between Hulanda Oya and Kadigam Ara under Panamure anicut. As Kadigam ara joins with Hulanda Oya at U/S of Hulanda Oya anicut and Ambagaha Ela main canal drains to Hingura Ara Tank, these schemes also will be benefitted by this project.

Project period	: 3 Years
TEC	: Rs. Mn. 1532
Total Expenditure (Up to end of 2022)	: Rs. Mn. 261.85
Allocation for year 2022	: Rs. Mn. 100.00
Expenditure during year 2022	: Rs. Mn. 93.199
Overall Physical Progress	: 14.65 %

Benefits

- Enhanced living standard of people living in the area by providing water for both agriculture and domestic purpose
- Ensure water security for irrigated agriculture during dry season and expand irrigable area by 350 acs.
- Supply the drinking water demand of 7000 m3/day by Kolonna Water Supply scheme.
- Serve Inland fishing industry and environmental requirements.
- Prevent CKDU (chronic kidney disease of unknown etiology) problem in the area.

Work completed during year 2022

- Re-settlements
- Excavation for Sluice
- Excavation for concrete wall in Saddle Dam
- Core-trench excavation in RB side of Main Bund

Figure 5-11: Construction of Sluice Structure

Figure 5-12: Construction of Saddle Dam

j.Himbiliyakada Irrigation Infrastructure Development Project

This project proposal is initiated by Hon President's "Gama Samaga Pilisandarak" program in Himiliyakada village. Under the irrigation facility development in Wilgamuwa area, it is proposed to improve existing Himbiliyakada tank and to construct a Wattegedara tank across Gemburu oya with a capacity of 1.3 MCM and Dodamgolla tank across Dodamgolla Oya with a capacity of 2.4 MCM. The main objective of the project is to supply irrigation water to the 1300 Acres of existing irrigable areas under Himbiliyakada tank due to the water scarcity mainly during Yala season. In addition to the two new reservoirs, it is proposed to construct Wattegedara augmentation tunnel and feeder canal to improve the existing Himbiliyakada reservoir. The project is located at Himbiliyakada irrigation scheme, Laggala in Mathale District.

Project period	: 2020 - 2024
TEC	: Rs. Mn. 7155.00
Total Expenditure (Up to end of 2022)	: Rs. Mn. 398.81
Allocation for year 2022	: Rs. Mn. 271.00
Expenditure during year 2022	: Rs. Mn. 221.61

Overall Physical Progress : 5.25 %

Benefits

- Irrigation water supply to the 1300 Acs of new irrigable areas and 1010 Acs of existing irrigable areas
- Increase of cropping intensity from 1.00 to 2.00 by supplying irrigable water for both Yala and Maha seasons
- Supply of safe drinking and domestic water. Hence reduce the health issues like CKD (Chronical Kidney Disease)
- Increase of economy status of the farmer families
- Improve the groundwater table
- Reduction of Human elephant conflicts

Work completed during year 2022

- Foundation of Wattegedara sluice tower
- Construction of Wattegedar sluice barrels (Unit 03 to Unit 10)
- Almost completed the filling of core-trench in Wattegedara Tank
- Cement grouting work in Wattegedara bund axis

Any other special matters or problems

- Permission for the borrow area from the Wild and Forest department not yet granted.
- 01 land is within Wattegedara site. Need to acquire.


Figure 5-13: Wattegedara Suilce

k. Uma Oya Downstream Development Project

Uma Oya Multipurpose Development Project comprised of two components viz. Head Works and Downstream Development. Construction of Head Works is being conducted by Farab Company of Iran on Engineering, Procurement & Construction (EPC) Contract while Downstream Development component is implemented by the Irrigation Department on the basis of Forced Account contract.

The work commenced in 2013 having the Environmental approval on 27th September 2013 after the supplementary EIA conducted for this component.

Project period	: 2013 -2022 (Revised)
TEC (Revised)	: Rs. Mn. 17,914.2
Total Expenditure (Up to end of 2022)	: Rs. Mn. 11,877.6
Allocation for year 2022	: Rs. Mn. 2,060.00
Expenditure during year 2022	: Rs. Mn. 2,006.672

Main component of the project

Main components of the projects are;

- Construction of 6.5 MCM Alikota Ara Reservoir
- Construction of Kuda Oya Reservoir
- Capacity Enhancement in Handapanagala Tank
- Construction of Handapanagala pickup Anicut
- Construction of LB Canal (11 Km) in Handapanagala Reservoir
- Construction of Alikota Ara – Kuda Oya Transfer Canal (24 km)
- Construction of Kuda Oya - Sinhalayagama Transfer Canal (36.1 km)
- Development of Village Irrigation Systems (Minor tanks)

Overall Physical Progress : 74.05 %

Benefits

- Annual trans-basin diversion 145 MCM water from the Uma Oya basin to Kirindi Oya basin
- Providing water to 4500 ha of new lands and 1500 ha of existing lands.
- Providing 30MCM drinking and industrial water in Monaragala and Hambanthota Districts.
- Improve 54 Minor tanks and providing water for 110 tanks

Work completed during year 2022

- Tunneling works
- Construction of Yalabowa tank
- Construction of Yalabowa trough
- Construction of Watagala Ara tank

Any other special matters or problems

- Forest clearance for the Alikota Ara – kuda Oya transfer canal at Buduruwagala-Kuda Oya area is still not granted.

Figure 5-14 : Alikota Ara Transfer Canal

Figure 5-15 : Koonwelana Aqueduct

Figure 5-16: Kuda Oya Transfer Canal

Figure 5-17: Kuda oya sinhalayagama transfer canal

5.2 Regional Development Branch

5.2.1 Objectives

Regional Development (RD) Branch is a subdivision under the Construction and Development sub-Department to manage medium and small-scale projects.

Implementation of medium scale new irrigation infrastructure development and settlement projects and rehabilitation of existing medium irrigation infrastructure project in an efficient and effective manner with minimum resource utilizing for the conservation, diversion, and distribution of water under gravity and lift irrigation for cultivation of new and existing lands.

5.2.2 Functions

- Finalizing, Approval and sanctioning of detailed cost estimates of medium and small-scale construction and development projects.
- Implementation of minor and medium construction works according to department standards.
- Guidance for implementation of projects with relevant regional directors.
- Finalizing project work plan and annual action plans.
- Monitoring and evaluating physical and financial progress by holding monthly meetings and submission of periodic progress to relevant authorities.
- Revision of cost arising from modification/variations of proposals and designs during execution.
- Preparation of Cabinet memorandum in the case of revision of estimates and extension of time.
- Monitoring land acquisition and resettlement programme and resolves the issues
- Coordination with local authorities/institutions regarding land acquisition and resettlement matters
- Coordination with the Forest Department, Wildlife Department, Valuation Department, Archeological Department, Ministry of Lands, Geological survey and Mines bureau, Central Environment Authority and Timber Corporations to settle project related issues with stakeholders.
- Coordination with specialized services branches and Contract & Procurement Branch for project activities whenever necessary.

5.2.3 Project wise allocation Distribution and Expenditure

Table 5-3: Project wise allocation distribution and expenditure

Project	Allocation (Rs. Mn)	Expenditure 2022 (Rs. Mn)	Cumulative Physical Progress %
Lower Uva Medium and Minor Irrigation Project	60.00	60.00	86.15
Mahagona Tank Project	13.00	12.99	100.0
Godigamuwa Tank Project	50.00	36.83	77.13
Wilakandiya Reservoir Project	40.00	39.99	97.35
Augmentation of Mahagalgamuwa Tank	30.00	13.45	93.05
Barrack Plane Lake Development Project	54.00	49.58	37.00
Peripheral area of settlers in Pelawatta Sugar Plantation area	79.00	57.52	57.51
Gama Samaga Pilisadarak Programme			
Essential rehabilitation of Padaviya and Wahalkada schemes	76.54	23.72	72.00
Pan Oya Anicut	65.06	25.49	79.65
Peramaduwa Reservoir	86.65	33.77	81.00
Kumara Ela Anicut	15.68	6.22	100.00
Rehabilitation and Improvements to Irrigation Systems in Polonnaruwa District.	69.92	35.19	35.19
Conducting bed contour survey & bund axis survey in Pekkulama tank	2.466	1.74	100.00

5.2.4 Projects under Regional Development Branch

a. Lower Uva Medium and Minor Irrigation Project

This project is located in the Monaragala district. Under this project, it is proposed to augment Debera Ara wewa in Wellawaya Division and improve 22 minor tanks including Watagala Ara wewa by extending the feeder canal from Ussalla anicut to Balaharuwa tank and constructing a new feeder canal from Balaharuwa Tank to Debara Ara wewa.

- Watagala Ara (Capacity-0.2MCM, Irrigable area-52 acres, Beneficiary-families 32),
- Debara Ara (Capacity-1.2MCM, Irrigable area-210 acres, Beneficiary-families 72)
- Construction of Mallipotha wewa in Bibile DIE division (Capacity-0.91MCM, Irrigable area-500 acres, Beneficiary-families 250).
- Provide irrigation facilities to 728 ha of new paddy lands and 971 ha of existing paddy lands.

Project period : From 2007 to 2023
Total Estimate Cost : Rs. 1,250.00 Mn
Total cumulative Expenditure : Rs.746.69 Mn

Figure 5-18: Construction of Debara Ara feeder canal

Figure 5-19: Construction of Debara Ara feeder canal

b. Mahagona Tank Project

Mahagona wewa project is in the Matale District. The Capacity of the tank is 0.78MCM. The existing irrigable area is 40 acres and the new irrigable area is 350 acres where 101 families are to be benefited. Mahagona wewa is an ancient and abandoned tank at the Dambulla Divisional Secretariat area in Matale District. The Bund is constructed across the stream Kekulagoda which is tributary of Mahagona Oya, by the late King Mahasen.

Project period : From 2008 to 2022
Total Estimate Cost : Rs. 235.00 Mn
Total Expenditure : Rs.213.04 Mn

Benefits of the project

- Increasing the amount of water currently supplied to the Huruluwewa reservoir under the Mahaweli scheme.
- Supply of water to Areula and surrounding paddy lands.

Work completed during year 2022

- Construction of RB Canal from 1+200 to 2+000 100% completed.
- Construction of field canals FC01, FC02 and FC05 100% completed.

Figure 5-20: Construction of RB Canal

Figure 5-21: Construction of FC 01

c. Development and Improvement to Godigamuwa Tank Project

The project is in the Matale District. The capacity of the reservoir is 0.25 MCM while the existing irrigable area is 166 acres. There are 265 families to benefit from this project.

Godigamuwa Tank has been constructed during the latter part of 1970. The tank capacity is very much less compared to the irrigable area. The existing spill has been undermined and water leaks through the bund. Wild Elephants have damaged the bund in several places. The capacity of the tank is increased by raising the bund height to about 5.00m. At present, 66 acres have been distributed between 33 families under the Godigamuwa tank. There are about 300 acres of land available for cultivation. But the capacity of the Tank is not adequate to cater these lands. Hence this project is a solution for the scarcity of water for agricultural lands for the second generation of farmer families in this area and to improve their livelihood.

Project period : From 2018 to 2024
Total Estimate Cost : Rs. 234.625 (Original 165.9Mn)
Total Expenditure : Rs. 171.47 Mn

Work completed during year 2022

- Construction of Tank bund 97% completed.
- Construction of Rip Rap and Toe Filter 37% completed.
- Construction of Spillways 94% completed.
- Construction of RB Sluice 100% completed.
- Construction of LB Sluice 100% completed.
- Construction of Anicut 69% completed.
- Construction of feeder canal 35% completed.
- Construction of the main canal and IFF 47% completed.

Figure 5-22: Construction of Anicut

Figure 5-23: Construction of LB Sluice

d. Wilakandiya Reservoir Project

Wilakandiya is an abandoned tank situated in the Ebbehera Village in Mahiyangana Divisional Secretary's Division in Badulla District. The main bund of the tank has been constructed across Nelliattakandiya Kandura which is a small tributary of Mahaweli River. This project will provide assured irrigation facilities to the people in this area who earn their living by rain fed shifted Chena

Cultivation. The new irrigable area will be 250 acres where 250 families will be benefited. The capacity of the tank is 1.06 MCM.

Project period : From 2012 to 2023
Total Estimate Cost : Rs. 298.00 Mn
Total Expenditure : Rs. 272.902 Mn

Work completed during year 2022

- Rehabilitation of access road 100% completed.
- Construction of Main canal - Earth work 98% completed.
- Construction of main canal (Structures) 98% completed.
- Construction of Distributary canal - Earth work (0.882km) 97% completed.
- Construction of Distributary canal (Structures) 93% completed.
- Construction of Field canals - Earth work (4.25km) 51% completed.

Figure 5-24: Construction of Main canal

Figure 5-25: Construction of Structures

e. Augmentation of Mahagalgamuwa Tank

The project area is located in Kurunegala District. This augmentation of Mahagalgamuwa wewa will assure irrigation facilities to 400 acres in both Maha and Yala seasons. In addition, it will provide irrigation facilities to 800 acres of lands which are presently under the command of neighboring Palukadawala scheme. Also 200 acres of new land located adjoining the Palukadawala scheme will be irrigated with this augmentation. The project includes construction of a diversion structure across Siyambalangamuwa oya and a 15 km long feeder canal to Mahagalgamuwa tank. Augmentation of the tank will ensure irrigation facilities to 1200 acres of existing lands and 200 acres of new lands. There are 2000 families to be benefited under this project. Capacity of the tank is 8MCM.

Project period : From 2014 to 2022
Total Estimate Cost : Rs. 500.00 Mn
Total Expenditure : Rs. 374.989 Mn

Work completed during year 2022

- Construction of the structure is 70% completed.
- Land acquisition and payment of compensation 40% completed

Figure 5-26: Rock blasting work

Figure 5-27: Construction of closed Conduit structure

f.Barrack Plane Lake Development Project

The project is located in Nuwaraeliya District. It was built in 1885 during British rule. Although the capacity of the Barack Plane Reservoir is close to 0.085 million cubic meters, the reservoir remains at supply level almost every day of the year due to the constant flow of water from the springs in the catchment area. Restoration of the Barrack Plane Reservoir will increase the water capacity of the reservoir to 1.2 cubic meters by removing invasive aquatic plants and silt.

Project period : From 2021 To2022
Total Estimate Cost : Rs. 230.00 Mn
Total Expenditure : Rs. 83.99 Mn

Work completed during year 2022

- Uprooting & removal of heavy rooted water weeds 80% completed.
- Excavation & removal of silt in tank 55% completed

Figure 5-28: Excavation & removal of silt

g. Peripheral area of settlers in Pelawatta Sugar Plantation area

Peripheral area of settlers in Pelawatta Sugar Plantation area is situated in Monaragala District. There are two stages of this project; Stage 01- Pelawatta Sugar Plantation area improvement work and Stage 02-Public area. At present the stage 01 execution work is ongoing. Increasing the storage capacity of water within the pelawatta sugar plantation area and thereby increasing of the harvest of sugarcane is the main aim of this stage.

Project period : 2021 to 2022
Total Estimate Cost : Rs143.5 Mn
Total Expenditure : Rs. 75.15 Mn

Work completed during year 2022

- Construction of Tank bund Sluice and Spill in Thummulla Tank 50% completed.
- Construction of Tank bund Sluice and Spill in Mankada Tank 100% completed.
- Construction of Tank bund Sluice and Spill in Meepale Tank 100% completed.
- Construction of Tank bund and Spill in Wellassa Tank 90% completed

Figure 5-29: Construction of Mankada wewa

Figure 5-30: Meepale Tank Improvements

Figure 5-31: Thunmulla Tank Improvement

h. Essential rehabilitation of Padaviya and Wahalkada schemes

The project is implemented in Anuradhapura district under Gama Samaga Pilisandarak programme. Under this programme irrigation fasilities are provided to 4375 acres of existing paddy lands in Padviya and Wahalkada schemes and 3950 farmer families are benifted. The project is implemented in three stages and aims to improve the agriculture roads and farm turnouts in both schemes.

Project period : 2021 to 2023
Total Estimate Cost : Rs.630 Mn
Total Expenditure : Rs.79.53 Mn

Work completed during year 2022

- Improvements of 22 killometers in 13 numbers of agriculture roads in Padaviya scheme.
- Improvements of 9 killometers in 4 numbers of agriculture roads in Wahalkada scheme.


Figure 5-32: Improvements to agriculture roads

i. Pan Oya Anicut

The project is located in Trincomalee District Morawewa irrigation division. The project is implemented under the Gama Samaga Pilisandara programme. Under this project, irrigation facilities can be provided for 421Ha of paddy lands in Kalyanapura area and enhances the cropping intensity from 1.2 to 2.0.

Project period : From 2021 to 2023
Total Estimate Cost : Rs. 66.18 Mn
Total Expenditure : Rs. 44.415 Mn

Work completed during year 2022

- D/S basin of the anicut is partially completed.
- Abutment wall 100% completed.
- Backfilling partially completed.

Figure 5-33: Construction stage of Pan Oya Anicut

j.Peramaduwa Reservoir

Peramaduwa reservoir project is implemented in Trincomalee district under the Gama Samaga Pilisandarak programme. The irrigable extent consists of 304Ha existing paddy lands and 300 farmer families are benefited. Under this project, it is proposed to rehabilitate the Peramaduwa tank and increase the capacity from 2450 Acft to 3345 Acft.

Project period : 2021 to 2023
Total Estimate Cost : Rs.118.09 Mn
Total Expenditure : Rs.53.33 Mn

Bund earth work was partially completed during year 2022


Figure 5-34: Peramaduwa Reservoir

k. Kumara Ela Anicut

Project period : 2021 to 2023
Total Estimate Cost : Rs.24.0 Mn
Total Expenditure : Rs.20.89Mn

Benefits of the project

- Improvements to water management and Reduced the flood damages.

Work completed during year 2022

- Balance work of Anicut


Figure 5-35: Kumara Ela Anicut

l. Rehabilitation and Improvements to Irrigation Systems in Polonnaruwa District

This project is implemented under the Gama Samaga Pilisandarak programme in Polonnaruwa district.There are four projects implemented under this programme.

- Feeder canal to Kirimitipitiya tank – 52 farmer families and 90 aces of paddy lands
- Construction of kusumpokuna tank and Gangodawewa – 180 farmer families, 350 aces in Kisumpokuna tank and 350 farme families, 880 aces in Gangodawewa tank.
- Improvements to agriculture roads, canals and Drainage system
- Rehabilitation to the Ambagaswewa spill tail canal – Protection from flood.

Project period : 2021 to 2023
Total Estimate Cost : Rs.140.0 Mn
Total Expenditure : Rs.97.00 Mn

Work completed during year 2022

- Balance work of Kirimetipitiya tank.
- Settling liabilities. (Gangoda wewa Tank, Ambagaswewa spill tail canal, Improvements to road network in Medirigiriya)

Figure 5-36: Kirimetipitiya feeder canal

m. Conducting bed contour survey & bund axis survey in Pekkulama tank

The Bed contour survey was conducted to finalize the design proposal and to find out inundation area by marking the FSL & HFL of the Proposed Pekkulama Reservoir

Project period : 2 months
Total Estimate Cost : 1,825,500.00
Allocation for 2022 : 2,466,000.00
Cumulative physical progress up to end of 2022 : 100%

5.2.5 Staff position

Table 5-4: Staff position of the C & D branch

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
01.	Additional Director General of Irrigation	1	1	-
02.	Director of Irrigation (MC & RD)	2	2	-
03.	Chief Engineer	2	2	-
04.	Irrigation Engineers	4	3	1
05.	Earth Resources Engineers	2	3	(1)
06.	Engineering Assistant	0	1	(1)
07.	Drawing Office Assistant	1	1	-
08.	Chief Management Assistant	1	1	-
09.	Development Officer	1	1	-
10.	Draughtsman	4	1	3
11.	Management Assistants	10	5	5
12	Office Assistants	6	2	4
	Total	**34**	**22**	**11**

6 System Management Sub Department

System Management Sub Department is responsible for the management of department assets, Irrigation assets, water management and irrigation agriculture. There are 6 branches coming under this sub department and they are Water Management Branch, Irrigation and Productivity Enhancement Branch, Assets Management Branch, Dam Safety Branch, Land and Legal Branch and Research Support & Process Improvement Branch.

6.1 Water Management Branch

6.1.1 Objectives

- Facilitate efficient, effective and sustainable management of the irrigation systems with the participation of users in order to maximize productivity in terms of one unit of water and one unit of land.
- Facilitate Maximum utilization of resources available in order to increase the farmer income.

In line with the above objectives, main areas of responsibilities of the Irrigation & Water Management branch include:

- Coordination with water stakeholders to manage seasonal water in the reservoirs.
- System Water Management
- Awareness of on farm Water Management.
- Awareness of watershed management and management of quality of watershed.
- Rehabilitation and up-grading systems for better Water Management.
- Formulating proposals to mitigate adverse effects of climate variations.

6.1.2 Performance

a. Water Management

The climate experienced in Sri Lanka can be characterized into 4 climatic seasons as follows.

Table 6-1: Seasonal Rainfall

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

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

Generally, Yala season mainly depends on FIM and SWM rain. However, since SWM rain is not effective over the dry zone,it is only the FIM rain that falls during the Yala season in the dry zone from mid-March to early May. Being effective only for two months, the Yala season is considered as the minor cultivation season of the dry zone.

Maha season that the major growing season of the whole country ,begins with the arrival of SIM rain in mid-September to October and continues up to late January or February with the NEM rain.

Water Management in the schemes is the integrated process of storage, reuse, diversion, conveyance, regulation, measurement, distribution and application of the rational amount of water at the correct place, at the proper time and removal of excess water from the farms to promote increased production in conjunction with improved cultural practices.

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

b. Land Productivity in Irrigation schemes

The total command area of major, medium, anicut and drainage schemes under Irrigation Department is 800,188 acres. The details of 2022 cultivated extent in Yala and Maha seasons are given under the following sub headings. In addition to that, the intermediate season is also cultivated in 2022.

Cultivated extent in Yala-2022

The overall percentage of cultivated extent (Paddy and OFC) and abundant land for Yala 2022 are described in Figure 1-1. Further, details of cultivation performance for each district in major and medium schemes under purview of Irrigation department as follows.

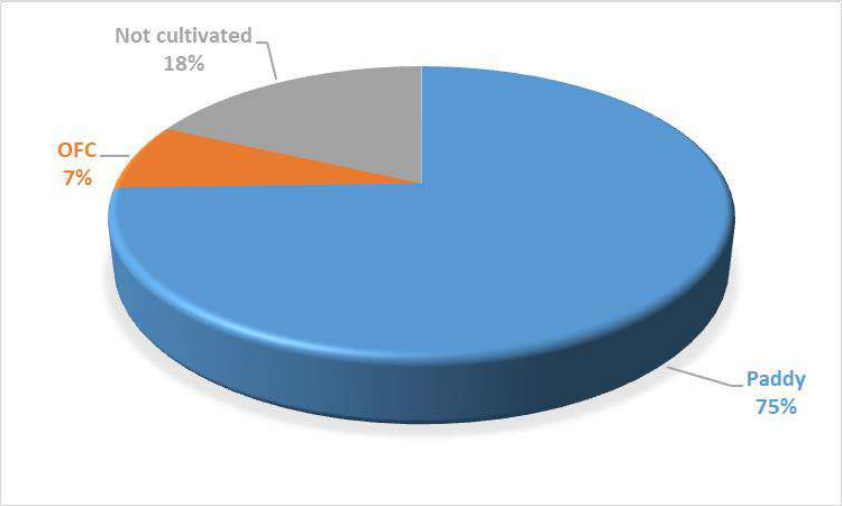


Figure 6-1: Cultivated extent in Yala 2022

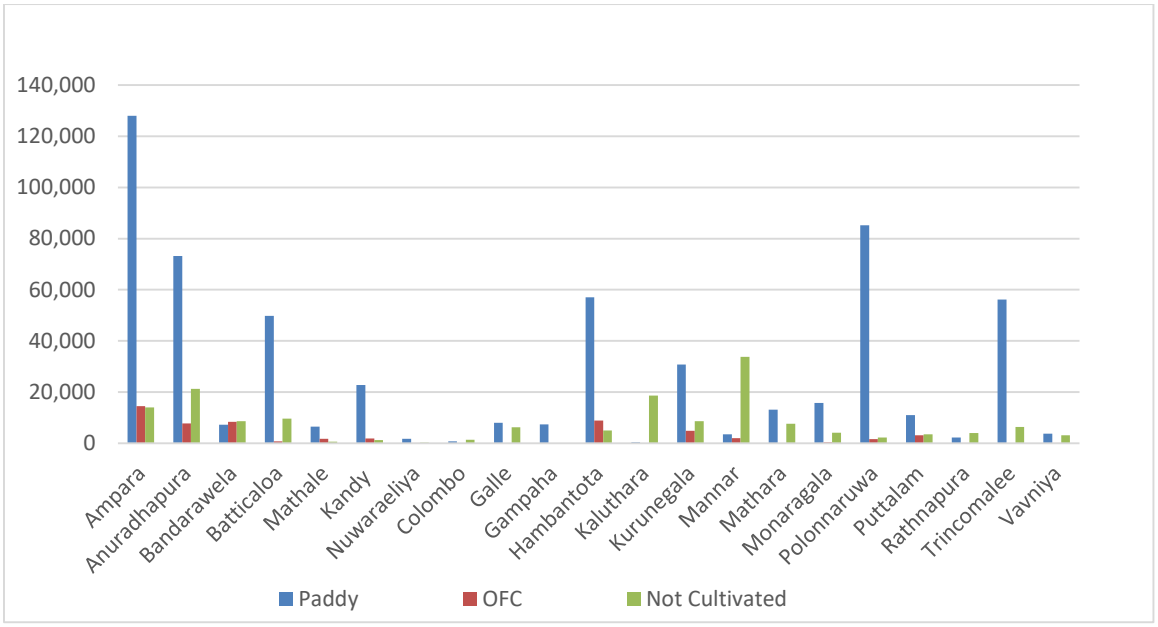


Figure 6-2: Cultivation extent cultivated during Yala 2022 in District

Cultivated extent in Maha -2021/22

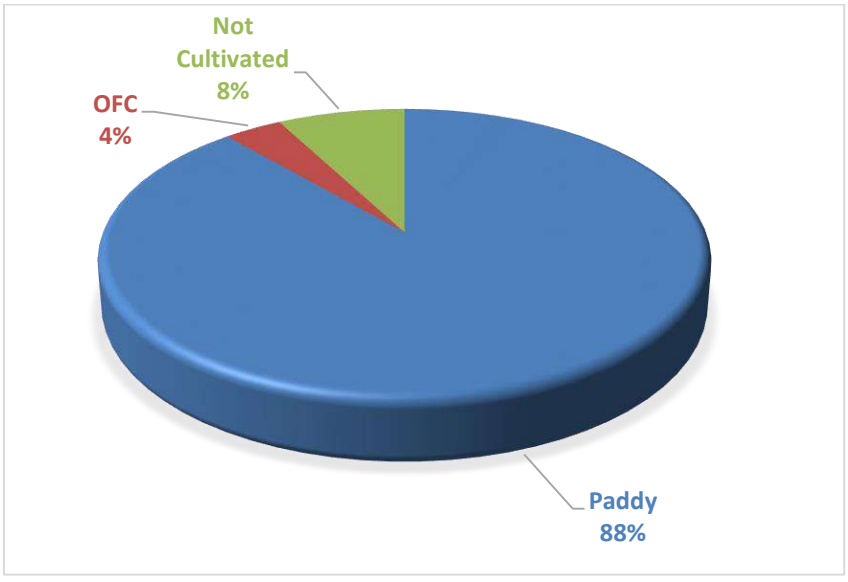


Figure 6-3: Cultivated extent in Maha 2021/22

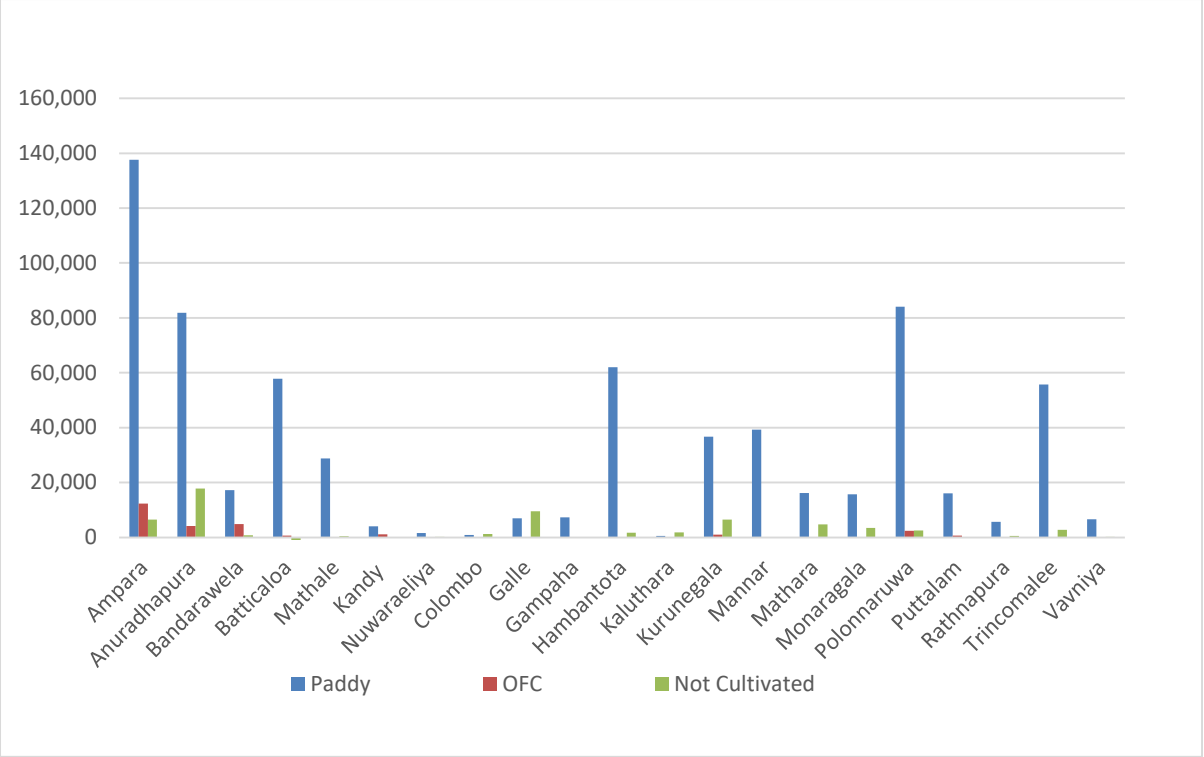


Figure 6-4: Cultivation extent cultivated during Maha 2021/22

Third Season in 2022

The third season was planned to start as an intermediate season in selected areas using the remaining water capacity of the reservoirs after the end of the Yala season. Accordingly, additional cultivation of about 42,000 acres of other field crops was successfully carried out. OFC (such as Green Gram, Maize, Cowpea, Groundnut, Vegetables, Black Gram, Chili, Sugarcane, Sweet Potatoes, Turmeric, and Sesame) were cultivated for the national requirement of the country. After the Yala harvest, the cultivation was carried out from mid-August to the end of October.

In addition to that, 1,585 acres of paddy were cultivated in Batticoloa, Colombo and Vavuniya Regions.

Figure 6-5: 2 ½ Paddy Cultivation during third Season 2022

c. Water availability and cultivation

The following graph shows that the percentage of water availability in major and medium reservoirs is controlled under Irrigation Department. The major cultivation season (Maha) which started from late September to early March is fed with inter-monsoon rains and the Northeast monsoon, which is well distributed in the Island. In Yala season, which starts from early April to early September, brings rain mostly to the Southwest region of Sri Lanka.

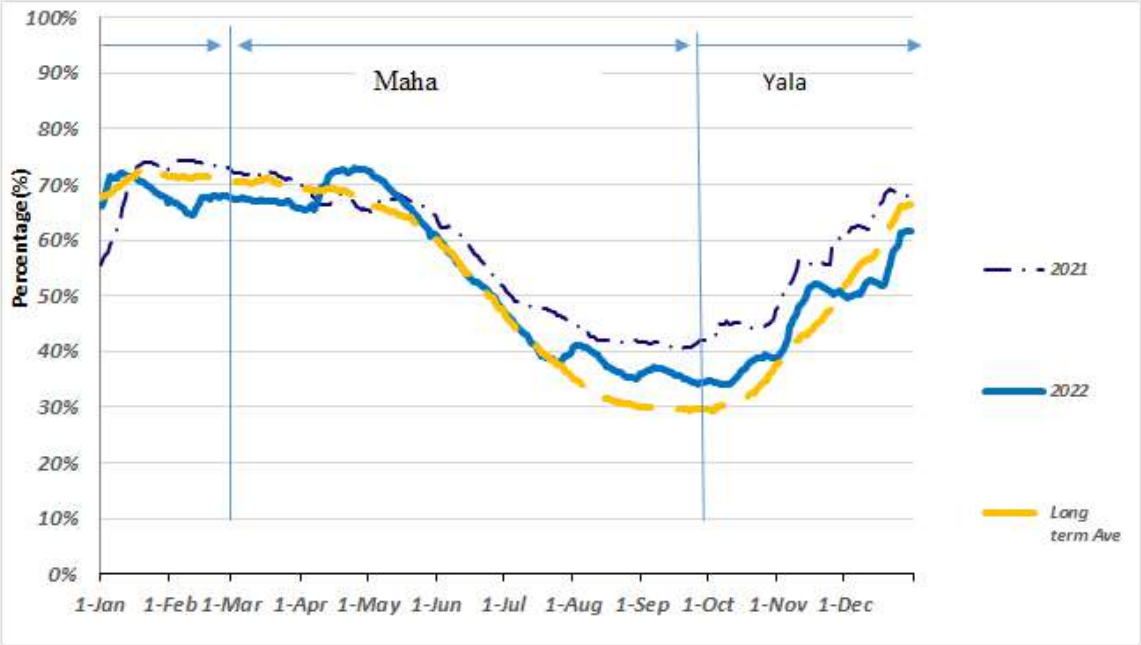


Figure 6-6: Percentage of Water Availability in 2021, 2022 and Long-Term Average

Maha season 2021/2022

The Maha seasonal cultivation was started from the mid of October to mid of November 2021. It was planned based on the available water in the reservoirs in each scheme. The average percentage of storage in major reservoirs was 43% at the beginning of October 2021. There was less amount of rainfall received up to the end of November. However, there is a significant amount of rainfall received during the North-East monsoon (mid-December and January) due to several depressions all over the country. So, the percentage of storage reached up to 72% of total storage at the end of January 2022. Average rainfall received in February and March. Percentage of storage is not changed during this period.

Yala season 2022

Most of the schemes of Yala cultivation were started at the beginning of April. 82% of lands under major and medium irrigation schemes were able to cultivate with Paddy and Other Field Crops. As an average amount of rainfall was received in the North-East Monsoon, most of the reservoirs received slightly low inflow from their own catchments compare to the previous years. Available water percentage of major reservoirs was around 70% at the beginning of April 2022 and available storage was slightly below the long-term average of the reservoirs. Further, storage was slightly increased up to 72% at the beginning of May as considerable rainfall received all over the island due to the South West Monsoon. As 3- 3 ½ month paddy was cultivated; a significant amount of water for month was

required up to the end of July. Further, there was a plan for intermediate cultivation (OFC) at the end of Yala cultivation. Hence through effective water management, decisions were taken to save water not only for irrigated agriculture but also for the other water demands. At the end of the Yala season, the effective storage of reservoirs was 40%. Further, the requested amount of drinking water and environmental flow also was successfully released during the dry season. In addition to that, around 42,000 acres of the command area of other field crops were cultivated as an intermediate season in 2022.

Water availability in Major reservoirs

Table 6-2: Water availability in Major reservoirs

No	Reservoir	District	Storage (MCM)				
			2022.01.01	2022.04.01	2022.08.01	2022.10.01	2022.12.31
1	Ambalan Oya	Ampara	20.97	29.15	16.04	15.26	18.66
2	Ekgal Oya	Ampara	12.45	16.85	8.51	5.50	10.95
3	Namal Oya	Ampara	27.53	36.08	22.82	18.80	35.05
4	Pallan Oya	Ampara	58.47	57.21	36.97	36.40	48.18
5	Pannalgama	Ampara	19.11	18.00	5.97	5.12	9.99
6	Rambakan Oya	Ampara	51.36	53.09	36.00	31.02	51.50
7	Rottikulama	Ampara	5.61	5.69	1.51	1.34	4.12
8	Senanayaka Sam	Ampara	364.00	422.34	149.13	139.27	325.61
9	Kalugaloya	Ampara	8.67	8.78	3.65	4.42	9.23
10	Huruluwewa	Anuradapura	35.87	37.20	22.50	18.24	32.69
11	Mahakandarawa	Anuradapura	43.48	37.25	16.65	14.19	27.44
12	Mahawilachchiya	Anuradapura	40.21	37.21	28.37	23.61	40.46
13	Manankattiya	Anuradapura	3.53	4.16	2.63	2.38	2.50
14	Nachchaduwa	Anuradapura	53.10	42.84	29.49	27.69	34.14
15	Nuwara Wewa	Anuradapura	42.36	34.38	27.44	20.45	21.38
16	Padaviya	Anuradapura	102.38	98.37	41.68	28.22	50.15
17	Rajangana	Anuradapura	93.01	100.17	85.67	90.75	94.42
18	Wahalkada	Anuradapura	35.35	38.50	23.78	21.21	24.74
19	Yan Oya	Anuradapura	164.92	170.07	100.80	85.11	164.92
20	Ambewela	Badulla	2.39	1.94	2.42	2.38	2.42
21	Dambarawa	Badulla	12.70	15.92	9.76	10.33	14.56
22	Kande Ela	Badulla	1.53	0.73	0.73	0.73	1.38
23	Mapakada	Badulla	7.93	9.13	8.60	8.70	9.31
24	Nagadeepa	Badulla	11.14	9.13	4.68	2.82	12.75
25	Sorabora	Badulla	19.86	20.72	11.83	12.52	19.86
26	Morana	Badulla	16.22	12.03	6.44	6.27	15.02
27	Navakiri	Batticaloa	46.60	61.94	17.62	17.62	54.93
28	Rugam	Batticaloa	15.21	21.15	6.34	6.20	17.79
29	Unnichchai	Batticaloa	49.20	67.87	14.50	11.57	57.55
30	Vakaneri	Batticaloa	13.56	16.65	16.65	13.66	13.36
31	Badagiriya	Hambantota	10.18	9.37	11.16	10.18	10.92
32	Kekiriobada	Hambantota	2.22	2.19	1.93	1.20	2.48

No	Reservoir	District	Storage (MCM)				
			2022.01.01	2022.04.01	2022.08.01	2022.10.01	2022.12.31
33	Lunugamwehera	Hambantota	118.43	76.02	75.09	67.92	153.16
34	Mau Ara	Hambantota	39.93	30.76	25.08	15.77	36.63
35	Muruthawela	Hambantota	28.76	25.55	34.39	23.32	30.78
36	Ridiyagama	Hambantota	29.05	31.75	31.08	20.06	29.97
37	Tissawewa	Hambantota	1.94	2.22	2.47	2.00	4.11
38	Weheragala	Hambantota	64.37	38.51	36.17	24.71	71.07
39	Weerawila	Hambantota	13.38	11.22	11.63	11.22	13.85
40	Yodawewa	Hambantota	8.26	2.41	7.03	7.74	10.33
41	Ellewela	Matara	1.05	0.98	1.05	1.03	1.05
42	Kekanadura	Matara	2.69	2.36	2.67	2.50	2.78
43	Dewahuwa	Mathale	11.96	9.07	7.25	5.53	13.42
44	Nalanda	Mathale	16.63	11.47	9.10	15.31	15.84
45	Wemedilla	Mathale	5.67	5.41	4.61	5.67	5.74
46	Ambakolawewa	Kurunegala	6.98	3.64	2.17	2.62	5.05
47	Attaragalla	Kurunegala	3.27	1.15	0.43	0.67	3.85
48	Batalagoda	Kurunegala	5.58	3.56	3.02	5.85	6.16
49	Deduru Oya	Kurunegala	62.23	27.50	57.89	67.16	75.04
50	Hakwatunawa wawa	Kurunegala	21.61	11.60	9.91	11.04	16.43
51	Kimbulwanaoya	Kurunegala	8.17	6.88	4.96	8.37	7.88
52	Mediyawa	Kurunegala	2.91	1.65	0.78	0.67	3.61
53	Magalla	Kurunegala	6.40	8.07	8.56	8.83	9.33
54	Jayawewa	Kurunegala	8.75	5.82	4.48	3.65	8.40
55	Usgala Siyabalan	Kurunegala	26.15	24.26	20.20	19.74	23.62
56	Ethimale	Monaragala	6.70	5.33	2.84	2.63	6.80
57	Handapanagala	Monaragala	16.21	6.82	3.34	4.26	10.45
58	Muthukandiya	Monaragala	24.45	21.39	16.94	15.19	21.98
59	Giritale	Polonnaruwa	19.86	23.32	18.22	18.59	16.93
60	Kaudulla	Polonnaruwa	86.13	107.47	66.98	46.56	84.68
61	Minneriya	Polonnaruwa	112.42	119.23	96.57	67.79	99.02
62	Parakrama Samudraya	Polonnaruwa	125.08	133.46	128.04	111.51	128.78
63	Inginimitiya	Puttalama	60.75	44.98	36.33	34.41	36.05
64	Tabbowa	Puttalama		11.72	6.17	4.10	13.57
65	Kantale	Trincomalee	105.38	133.47	67.53	46.03	101.56
66	Mahadivul Wewa	Trincomalee	21.07	23.83	11.10	9.44	21.07
67	Mora Wewa	Trincomalee	20.60	29.05	9.24	4.76	19.67
68	Vendrasan	Trincomalee	12.03	18.19	10.64	7.62	6.96
69	Wan Ela	Trincomalee	2.21	2.88	1.61	2.85	2.66
70	Pavatkulam	Vavuniya	30.22	21.38	6.78	3.00	15.52
71	Akathimuruppu	Mannar	8.09	3.46	4.01	2.05	7.59
72	Giants Tank	Mannar	33.80	22.57	30.59	22.20	38.85
73	Viyathikulam	Mannar	1.48	2.17	1.66	0.43	1.63

d. Water Management works related performance in 2022

The following programs were completed in 2022.

- Model Scheme
- Celebration of World Water Day
- Data collection
- Approval given for water extraction to drinking water.
- Operation and maintenance works
- Model Farm
- PEISEIP

Water Management Pilot Project - Model Schemes

Water management is very important for these days due to the increasing trend of water demand (with a different water usage such as drinking, hydropower, inland fisheries, wildlife, cultural activities, tourism etc.), climate change and food security of the nation. The model schemes are introduced as a pilot project in 14 regions to identify the actual usage of water for irrigation purposes and minimize the losses in the Irrigation systems. The main components of the Model schemes are to measure inflow to the reservoir, the irrigation releases (Install gauges and calibrates Main and D-canals) and rainfall.

Celebration of World Water Day

World Water Day is an annual event of ID and all stakeholders of the water sector organized by the WM Branch. The theme for the year 2022 was "Ground Water - Making the invisible visible". World Water Day was celebrated on 22nd March 2022 at the BMICH which included the keynote address by Jayantha De Silva, Secretary to the Ministry of Technology and the guest speech by Dr. Thilak Siyambalapittiya and several technical speeches. The technical documents were published as a special supplement in Newspapers with three languages (Daily news, Dinamina and Thinakeran).

Figure 6-7: World Water Day Celebration – 2022

Data Collection

Three Viber groups were introduced for easy communication with Range and Divisions. The Water Management related data (Reservoir water levels and cultivation extent), and special notices are sheared in these groups.

All the 73 major reservoir data have been collected from range and divisions on a daily basis and these data are verified and uploaded in the Irrigation Department web site daily. These data are displayed on the Sri Lankan map in the website for public users. Further, it is displays seasonal rule curve, effective storage and reservoir spilling data. The service given by the ICT branch is very much valuable in this task.

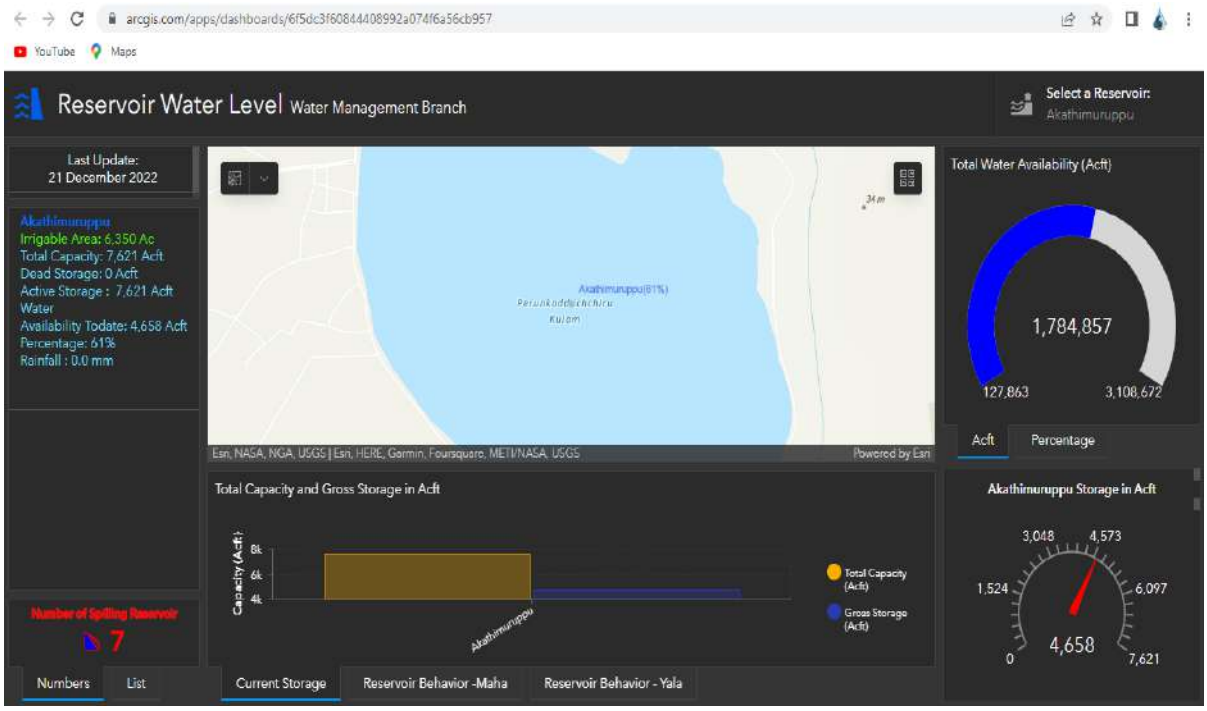


Figure 6-8: Daily reservoir data in ID website

Approval given for water extraction to Drinking Water

Drinking water is considered as a first priority for living beings on the earth. Hence, Water supply and environmental flow have been prioritized by the Irrigation Department. Further, the National Water Supply and Drainage Board has been given approval (11 locations) to execute the works from the Irrigation Department in 2022. Locations of water extraction are from reservoirs, rivers, streams, and irrigation canals.

Table 6-3: Details of water extraction approval for NWSDB -2022

Region	Name of the Project	Water Source	Extraction (m3/day)	Status
Badulla	Springvally WSS	Badulu Oya @ D/S of Dunuwangiya	5,000	Primary Approval given
Colombo	Kosgama WTP Expansion Project	Kelani River @ Kosgama	17,350	Primary Approval given
	Palindanuwara WSP	Alwelthota Pilithuda Ella	6,600	Primary Approval given
Galle	Deniyaya WSP	Gin Ganga @ Deniyaya	14,050	Primary Approval given
	Augmentation of Akuressa WTP	Nilwala @ Balakawala	31,200	Primary Approval given
	Neluwa Thawalama IWSP	Gin Ganga @ Neluwa	16,500	Primary Approval given
Kurunegala	Extension to Rasnayakapura	Magalle Tank	8,250	Conditional Approval given

Region	Name of the Project	Water Source	Extraction (m3/day)	Status
Polonnaruwa	Improvements to Minneriya WTP & WSS	Minneriya Tank	14,850	Primary Approval given
	Augmentation of Polonnaruwa Old WTP	Parakrama Samudraya	7,150	Primary Approval given
	Capacity improvement and distribution expansion of Bakamoona WSS	Yodha Ela @ Bakamoona	2,100	Primary Approval given
Puttlam	Karuwalagaswewa WSP	Kala oya	5,500	Primary Approval given

Table 6-4: Water extraction approval for commercial purposes

Region	Project	Company	Water Source	Extraction (m3/day)	Status
Kurunegala	Water for manufacture of coconut husk chips & coir dust/coconut husk chips associated products	Kobeigane Plant, Jiffy Products S.L. (Pvt) Ltd	Deduru Oya	12,000	Primary Approval given
	Pumping water for knitted Fabric Textile Manufacturing Plant	Browns Fabric Ltd	Ma Oya	4,500	Primary Approval given
Puttlam	Water for organic cultivation	Wendala Plantation (Pvt) Ltd	Urupitiya Ela	for 25 Ac	Primary Approval given
	Water for maize cultivation for Nikaweratiya NLDB farm	Watawala Plantation PLC		for 150 Ac	Primary Approval given
Badulla	Water for Pepper cultivation	FARMAC International (for 40 Acs)	Urupitiya Ela	200	Primary Approval given

Table 6-5: Water extraction approval for other projects

Region	Project	Water Source	Extraction (m3/day)	Status
Anuradhapura	RIDEP-JICA Project	Jayanthiwewa	500	Primary Approval given

e. Operation and maintenance works

There were 7 votes under the Water Management branch for efficient operation and maintenance of Irrigation schemes which were distributed in 14 regions. The works under the above votes are coordinated and monitored from each region and allocation was released as per their performance. The total allocation received from the Departmental block Vote for the Year 2021 was Rs.51.57 million.

The allocation from Additions & Improvements to Existing Irrigation works for Improvements to Water management, Protection of upper catchment and watershed management and Calibration & Water management studies allocations were used for selected 7 Model Schemes out of 14 Regions.

f. Operation and maintenance works

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g. Model farm

The model farm has been established in selected locations in Divisional Irrigation offices. Allocation from the Water management branch was given for establishing a new model farm and maintenance of the existing model farm in some locations of Mahagalwewa (new), Nachchaduwa, Murungan, and Rajangana. The cultivated fruits and vegetables were marketed by Divisional officers and it has been attached to government revenue.

h. Annual Productivity

The production of paddy during 2021/22 Maha season & 2022 Yala season are as follows.

Table 6-6: Seasonal details of Rice Productivity

	2021/22 Maha Season	**2022 Yala Season**
Production of paddy (million Metric Tons)	0.78	0.99
Income (Billion Rupees)	156	198

In addition to that, other field crops (OFC) were cultivated during Maha (27,700 acres), Yala (57,800 acres) and intermediate seasons such as mainly green gram as per the national demand.

6.1.3 Staff Position

Table 6-7: Staff Position

Designation	**Approved Carder**	**Present carder**	**Deficit**
Director of Irrigation	01	01	_
Chief Engineer	01	01	_
Irrigation Engineer	03	01	02
Engineering Assistant	01	01	_
Draftsman	02	01	01
Development Officer	03	03	_
Management Service Officer	02	01	01
Labours 25/2014 - (Department Clerk)	02	01	_
K.K.S. / (25 /2014)	02	02	_
Multipurpose Development Assistant (MDA)	–	01	01

6.2 Irrigation & Productivity Enhancement Branch

6.2.1 Objectives

To establish an integrated management system to increase socio-economic standard of the farming community through participatory management approach by optimum use of one unit of water and one unit of land in irrigated agriculture.

6.2.2 Functions

- Establishment of Integrated Management System in Irrigated agriculture using participatory management concepts:- WAPHAULA PROGRAM
- To Increase cropping Intensity by crop diversification in major/ medium schemes.
- Direction and training of project management staff and farmers in participatory management.
- Monitoring PMC in all Waphaula schemes and preparation of guidelines for PMC activities & Appointing Project Managers for Irrigation system.
- To develop inter-relation between officers and farmers and with other lines agencies in Irrigated agriculture.
- Financial management and progress monitoring of funds allocated to Irrigation and productivity enhancement subject.
- Direction and co-ordination of unit office management
- Management of Invasive Aliens Species (IAS) in Irrigation Schemes.

6.2.3 Performance

a. Establishment and improvements of Unit Offices

The unit offices are the places where the public and responsible officers from the irrigation department meet together mostly. Those offices should be maintained in proper condition. Establishment and improvements of the Unit Offices in Irrigation Schemes level was started in 2013 and there are many unit offices all around the Island have been rehabilitated and newly constructed through this vote to serve the farmers. It has achieved good progress at present. Last year, due to limited allocation,a total of Rs.12.41Mn was released for only five of the regions such as Trincomalee, Hambantota, Mannar, Colombo and Kandy. Those works have been done perfectly and the pictures of some completed projects have been shown here.

Figure 6-9: Improvements to Muruthawela Unit Office in Colombo Region

Figure 6-10: Construction of Morawewa Unit Office in Trincomalee Region

b. Development of farmer organizations and improvement of farm productivity and profitability

Rs. 0.5Mn allocation was released for the Development of farmer organizations and improvement of farm productivity and profitability. The main activities under this project are organizing meetings such as PMC and any awareness programs for farmers, enhancing the productivity of a particular scheme, maintaining the scheme and handing over a newly constructed scheme for farmers. Up to end of December 2022, Rs.0.5 Mn was used for above mentioned activities. In 2022 there is one newly constructed scheme called Handapanagala Left bank development which is handed over to farmers. Then the coordination works have been done by our branch for the following works such as, planning the water management, Organizational planning, Agricultural planning and formation of Farmer Organization & Project Management Committee and finally a meeting also arranged to aware the officers, beneficiaries, Agricultural officers and other stakeholders related to this irrigation scheme.

c. Organic Fertilizer Report

The research was started to enhance the production and usage of Organic Fertilizer for our farms in 2021 and which will continue to this year and the final results were noticed, discussed and documented as publication and the research is published this year.

Figure 6-11: Picture of Publication

d. Update the farmer organizational Act in Sri Lanka

There was a project started to update the farmer organizational Act.in Sri Lanka, in order to implement the project, the Director General of Irrigation has appointed a committee with 5 members, the report is implemented the following works to collect the data on this. This is informed to all the Directors of Irrigation and Divisional Irrigation Engineers and let them inform the farmers on this project and request the proposals from the farmers those are collected and forward to us, those proposals are summarized and forwarded as a report to the Irrigation ministry.

e. Update National Agricultural policies in Sri Lanka

There was a project started to update National Agricultural policies in Sri Lanka, in order to collect the proposals on this. This is informed to all the Directors of Irrigation and Divisional Irrigation Engineers and let them aware the farmers on this project and request the proposals from the farmers, officers and line agencies. Collected details were forwarded to the Agricultural Ministry.

f.Project Management Committee

All the meeting minutes of the project management committee were collected and updated in a data base in our branch and those minutes are studied carefully to make necessary arrangement to overcome the issues mentioned in the minutes.

6.2.4 Staff position

Table 6-8: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
1	Director of Irrigation	1	1	
2	Chief Engineer	1	1	
3	Irrigation Engineer	2	1	Deficit 1
4	Engineering Assistant	1	1	
5	Draftsman	1	1	
6	Development Officer	2	2	
7	Management Assistant	1	1	
8	Office Assistant	2	2	
	Total	**11**	**11**	

6.3 Assets Management Branch

6.3.1 Objectives

Assets Management Branch is the largest branch under System Management Sub Department and handled Rs. 1067.3 million of annual allocation in 2022. The main role of the branch is managing all the assets of the department except machineries and vehicles.

Well operation of all 387 number of schemes; 241 tanks, 113 anicuts, 25 drainage schemes and 8 lift irrigation schemes to supply water for the cultivations, maintenance of all above schemes to ensure the long lasting and avoid damages causing disaster while delivering the intended water issues are the main objectives of the branch.

Table 6-9: Total number of schemes operating by Irrigation Department

Region	Major		Medium		Lift Irrigation	Drainage	Total Extent (ha.)
	Reservoirs	Anicuts	Reservoirs	Anicuts			
Ampara	10	2	5	1	-		63,308
Anuradhapura	13	1	80	6	1		41,359
Badulla	7	3	3	6	-		9,807
Batticaloa	6	1	3	-	-		24,329
Colombo	-	5	4	19	-	6	14,113
Galle	2	2	5	6	1	19	14,178
Hambantota	10	3	10	2	3		28,723
Kandy	4	3	8	19	-		14,812
Kurunegala	9	-	10	7	2		17,898
Mannar	4	-	4	2	-		18,685
Monaragala	3	3	19	10	-		8,128
Polonnaruwa	4	1	3	4	-		36,040
Puttalam	2	2	7	3	1		7,128
Trincomalee	6	2	1	-	-		25,278
Total	**80**	**28**	**161**	**85**	**8**	**25**	**323,786**

6.3.2 Functions

- Maintenance of all the Irrigation schemes belongs to the Irrigation Department
- Financial allocations and other relevant works in connection with the operation and maintenance work.
- Maintenance of buildings, lands, Irrigation structures and other immovable assets in all the schemes.
- Improvement and upgrade of the department assets.
- Maintaining and upgrading the database relevant to Irrigation schemes, Buildings
- Taking action for the complaints made by the public relevant to Operation and Maintenance and other related matters.

6.3.3 Performance

Following projects have been implemented through the Assets Management Branch.

a. Polonnaruwa Irrigation Development Project (PIDP)

This project was planned to minimize the water scarcity in Polonnaruwa district during "Yala" season and upgrade the efficiency of water supply. It is also expected to minimize the damages to paddy areas due to flooding in Polonnaruwa district during the"North East Monsoon". About 35,978 families in Polonnaruwa District are benefited by this project.
The total estimated cost of the project is Rs. 7000 million and duration is 7 years (2017-2024). The allocation for 2022 is Rs. 45.6 million.

Figure 6-12: Construction 171 m long canal lining in FC 3 in Elahera division

Figure 6-13: Construction 180 m lining in FC 14 Akkara 200 in Elahera division

b. "Wari Saubhagya" National Program for Rehabilitation of Rural Tanks and Anicuts

This project is basically implemented to strengthen the rural lives and local agriculture in Sri Lanka by enhancing the irrigable area through rehabilitation of tanks enhancing their capacities. About 250000 families in all districts are benefited by this project.

The total estimated cost of the project is Rs. 5141 million and project duration is 2 years (2021-2022). The allocation for 2022 is Rs. 1323.9 million.

Figure 6-14: Mangala Wewa after Rehabilitation

Figure 6-15: Murugan Kulam after Rehabilitation

Figure 6-16: Maha Wewa after Rehabilitation

Figure 6-17: Jayanthigama Ekamuthu after Rehabilitation

c. Rehabilitation of Major Medium Irrigation Scheme including Emergency Infrastructure Rehabilitation Work Infrastructure Development

The total allocation for the year 2022 under this vote is Rs.120 million.

Figure 6-18: Before Reconstruction of D/S spillway (LB) in Unnichchai tank in Unnichchai scheme in Rugam Division

Figure 6-19: After Reconstruction of D/S spillway (LB) in Unnichchai tank in Unnichchai scheme in Rugam Division

d. Performances Done under Block Votes

Work carried out under Operation & Maintenance of Gravity Irrigation Works

The total allocation for the year 2022 under this vote is Rs. 1 million.

Figure 6-20: Bibila Badulu Oya before Rehabilitation

Figure 6-21: Bibila Badulu Oya after Rehabilitation

Work carried out under Maintenance of Departmental Roads in Irrigation Schemes

The total allocation for the year 2022 under this vote is Rs. 6.16 million.

Figure 6-22: Improvement to FC8 farm road 0+000 to 0+250 in LB main channel in Kaddumurivu scheme in Rugam Division

Figure 6-23: After construction of the FC8 farm road 0+000 to 0+250 in LB main channel in Kaddumurivu scheme in Rugam Division

Flood Damages and Repairs

The total allocation for the year 2022 under this vote is Rs. 13.61 million.

Figure 6-24: Construction of Aluthela LB bund station at stn 0+789 to 0+800 and construction of LB farm turnout structure in willoya scheme

Essential Rehabilitation of Major Medium Schemes

The total allocation for the year 2022 under this vote is Rs. 447 million.

Figure 6-25: Repairs DR 02 morning glory spill in RB main channel stn 23+100 of Senanayaka Samudraya

Figure 6-26: After Construction of Jeyapalan Anicut in Unnichchai scheme in Rugam Division, Batticaloa

Figure 6-27: Before Improvements to D/43 RB FC 1 in stage III in Minipe Division

Figure 6-28: After Improvements to D/43 RB FC 1 in stage III in Minipe Division

6.3.4 Regional wise Allocation Distribution and Expenditure

An allocation of Rs. 1067 million under 21 votes have been distributed among all Regions during the year 2022.

Table 6-10: Annual Allocation Released under the votes handle by DI (AM)

Region	Allocation (Rs)	Expenditure (Rs)	Physical Progress %
Ampara	71,562,463.00	71,561,520.00	100
Anuradhapura	121,251,975.55	121,090,297.55	98
Badulla	58,456,008.09	58,786,355.09	100
Batticaloa	115,436,225.38	115,276,263.38	97
Colombo	48,488,953.46	46,375,393.46	93
Galle	54,489,478.75	52,994,752.75	94

Region	Allocation (Rs)	Expenditure (Rs)	Physical Progress %
Hambantota	81,614,887.00	80,414,809.00	95
Kandy	99,095,059.51	98,982,583.51	100
Kurunegala	58,027,630.46	58,024,575.46	100
Monaragala	53,137,654.00	51,537,640.00	92
Mannar	58,122,478.31	57,556,724.31	99
Polonnaruwa	127,187,971.70	124,353,864.70	96
Puttalam	48,929,142.00	49,104,519.00	100
Trincomalee	69,735,092.00	69,393,814.00	100
ITI	1,650,000.00	1,650,000.00	100
Head Office	177,225.00	160,699.00	89
Total	**1,067,362,244.21**	**1,057,263,811.21**	**97**

6.3.5 Staff Position

Table 6-11: Staff Position of the Branch

No	Designation	Required Cadre	Present Cadre	Deficit/Excess
1	Director of Irrigation	01	01	
2.	Chief Engineer	01	01	
3.	Irrigation Engineer	03	02	01 (Deficit)
4.	Earth Resources Engineer	01	01	
5.	Engineering Assistant	01	00	01 (Deficit)
6.	Draughtsman	01	01	
7.	Development Officer	02	03	01 (Excess)
8.	Management Service Officer	07	01	06 (Deficit)
9.	KKS	02	02	
10	Laborer	00	02	02 (Excess)
11	Computer Operator	02	00	02 (Deficit)
	Total	**21**	**14**	**Excess - 03 Deficit - 10**

6.4 Dam Safety Branch

6.4.1 Objectives

Guidance of the field level officers to ensure each dam is operated and maintained in a safe manner and to minimize the risk associated with dam failure.

6.4.2 Functions

- Ensuring safety of dams by monitoring, evaluation and feedback of periodical inspection of dams and coordination for the readiness to North East Monsoon
- Issuing guidelines to streamline dam safety practices
- Compilation of technical data and historical events of dams
- Developing and updating of standing orders
- Conducting dam safety awareness program to refresh the knowledge of the technical staff and to share the experience
- Coordination with specialized division, outside service organizations and professional bodies to carry out inspections, investigations and implementation of remedial measures
- Monitoring the annual work program under the vote of Improvements to Head Works for Additional Safety and Electrical & Electromechanical Installation
- Coordination with Project Management Unit of Integrated Watershed and Water Resources Management Project (IWWRMP) for improvements of head works and canal systems maintain by Irrigation Department and special study on Senanayaka Samudraya Headworks in Ampara
- Maintain the Secretariat of Sri Lanka National Committee on Large Dams of International Commission on Large Dams.

6.4.3 Performance

a. Monitoring of Safety of the Head Works

The regular inspection of head works helps to identify any deficiencies at an early stage. It will focus on proper operation and maintenance to identify any possible emergency situation at an early stage. Hence, corrective actions can be taken before the safety of the dam is jeopardized. Although this vital responsibility of Irrigation Department as a dam owner is stipulated in circulars the practices and responses in conducting regular inspections need to be improved further.

The Dam Safety branch updated and issued the circulars on Safety of head works conducting regular inspections. Accordingly, the Dam Safety branch monitors the progress of conducting quarterly inspections on major dams in each Region and checks the Quarterly Inspection Report (QIR) as stipulated in the circular in order to streamline the practices. Accordingly, numbers of major dams in each region which require preparing the Quarterly Inspection Reports (QIR) are as follows.

Table 6-12: Number of Major Dams

Region	Ampara	Anuradhapura	Badulla	Batticaloa	Galle	Hambanthota	Kandy	Kurunegala	Monaragala	Polonnaruwa	Puttalam	Mannar	Trincomalee	Total
No of major dams	9	13	9	7	4	9	5	11	3	4	3	5	4	86

Inspection of the dam at different time periods allows examining the dam under different reservoir loading conditions with different vegetation cover. Similarly, it facilitates the identification of the changes in headworks at similar reservoir loading conditions in different time periods. Accordingly, the Dam safety branch has identified the importance of coordination and convincing the field staff on carrying out regular inspections, scheduled at different time periods as per the ID circular 4/2013.

b. Field Inspection

Field Inspection on following places was carried out by the staff of the Dam Safety branch with the staff of other relevant specialized branches under the guidance of ADGI (SM) and ADGI (IP&D). Accordingly, instructions were given for proper operation and maintenance. Recommendations were given for emergency actions and long-term solutions where there were issues in Headworks. Following field inspections were carried out in the year 2022.

- Peramaduwa Tank bund in Trincomalee region.
- Viyadikulam spillway in Mannar Region.
- Muhanthankulam Headworks and canal system in Mannar Region.
- Mahalindawewa Headworks inspection in Anuradhapura Region.
- Mallipotha Headworks inspection in Monaragala Region.
- Kekanadura Headworks inspection in Galle Region.
- Haliela tank Inspection in Galle Region.
- Ellewewa project inspection in Embiliptiya.
- Denagama tank inspection in Galle Region.
- Elahara Anicut inspection in Polonnaruwa Region.
- Haththota Amuna inspection in Kandy Region.
- Crack monitoring of Senanayaka Samudraya sluice and spillway.
- Inspection of Huruluwewa reservoir canal structures

Figure 6-29: Inspection of Elahera Anicut in Elahera Division

Figure 6-30: Inspection of seepages and dipressions in downstream of the Denagama Tank Matara Division

6.4.4 Regional wise Allocation Distribution and Expenditure

a. Improvements to Head Works of Tanks for Additional Safety - 282-2-2-0-2001(11)-11

There are two votes under the Dam safety branch. The amount of Rs. 4.066 million for 11 nos. of works were distributed under the vote of Improvements to Head Works of Tanks for Additional Safety for year 2022. The work mainly consisted of improvements of bund, rehabilitation of sluice gates, Anicut gates and repairs to spillways.

Table 6-13: The summary and distribution of annual allocation and expenditure for the year 2022

Region	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Physical Progress %
Ampara	0.005	0.005	100
Anuradhapura	1.195	1.195	100
Badulla	0.423	0.423	100
Hambantota	0.566	0.566	100
Kurunegala	1.877	1.877	100
Total	**4.066**	**4.066**	

b. Electrical and Electromechanical Installation - 282-2-2-0-2001(11)-7

Annual allocation under the Electrical and Electromechanical Installation vote was Rs.0.7 million and 02 items were selected for implementation. The work mainly consisted of improvement with the electromechanical system and regulators.

Table 6-14: The summary and distribution of annual allocation and expenditure for the year 2022

Region	Allocation Rs. Mn	Expenditure Rs. Mn	Physical Progress %
Badulla	0.321	0.321	100
Puttalama	0.379	0.379	100
Total	**0.7**	**0.7**	

6.4.5 Staff Position

Table 6-15: Staff Position in Dam Safety branch

No	Designation	Approved cadre	Present Cadre	Deficit / Excess
1.	Chief Engineer	01	01	-
2.	Irrigation Engineer	04	01	02
3.	Earth Resources Engineer	-	01	
4.	Engineering Assistant	02	01	01
5.	Draughtsman	01	01	-
6.	Management Service Officer	02	01	01
7.	Labour	-	01	-
8.	Office Assistant	01	-	01
	Total	**11**	**07**	**05**

6.4.6 Specific Works under Dam Safety Branch

a. Sri Lanka National Committee on Large Dams (SLNCOLD) of International Commission on Large Dams

The secretariat of SLNCOLD has been hosted by the Irrigation Department since 1958. Financial provision has been made by the government in the recurrent vote of the annual budget of Irrigation Department for the subscription payments for ICOLD. Membership of SLNCOLD is comprised with professionals in ID, MASL, CEB, CECB, NWS & DB, Universities and freelance dam consultants. There are 5 Organizations having corporate membership in SLNCOLD. The executive council is composed of the members above organizations while the Director General of Irrigation holds the president post.

Young engineers' forum attached to SLNCOLD was initiated on 11th June 2022. A workshop was arranged in the Irrigation Department premises to enhance the young engineer's knowledge related to the dam design and construction. Eng. S.R.K. Aruppola and Dr. K.K. Wijesundara delivered the presentation as guest speakers in the event with more than 100 participants from ID, MASL, CEB, NWS & DB and CECB.

Figure 6-31: Part of the audience in the forum

Figure 6-32: Delivering the keynote speaks

6.5 Land and Legal Branch

6.5.1 Objectives

Legal matters related to lands

- Investigating the unauthorized activities of tanks, canals and irrigation structures operated and maintained by the Irrigation Department.
- Dealing with the cases filed by or against the Irrigation Department as a party related to irrigation offenses and other matters.

Acquisition of Lands

- Carrying out necessary activities of acquisition of private land and getting the release of state lands required for various projects and other activities carried out by the Irrigation Department.

Activities related to reservations and lands

- Recommendations on the transfer of lands under the purview of the Irrigation Department to other parties.
- Taking over possession of the lands used by the Department.
- Recommendations on requests made by various parties regarding the development of lands adjacent to rivers, tanks and canals.

6.5.2 Functions

- Carrying out relevant legal matters under the Irrigation Ordinance.
- Actions under the State Land Acquisition Act.
- Contact the Attorney General's Department and act on the relevant legal assistance.
- According to the land acquisition act, this process is carried out in collaboration with the Regional Offices of the Irrigation Department with the intervention of the relevant Divisional Secretariats and the Ministry of Lands.
- Preparation of relevant letters on the recommendation of the Regional Directors of Irrigation on the requests and complaints of various parties on lands under the purview of the Irrigation Department.
- Perform necessary actions under the RTI Act as the Information officer and assist the nominated officer (DGI).

6.5.3 Performance

a. Actions taken by the Director General of Irrigation against the encroachments on lands under the purview of the Irrigation Department under the Recovery of possession Act:

- Seven Quit Notices issued by the Director General of Irrigation.
- No cases were filed in magistrate courts according to the issued Quit Notices in the year.
- Two eviction orders were issued by the magistrate court on the cases filed from 2019 to 2021.
- Fiscal orders were issued for 18 cases under the State Land Recovery of possession Act in the year.

- Fiscal orders were issued for two cases under the Government Quarters Recovery of Possession Act.
- Provided legal assistance for 12 cases.
- Attended to 31 cases filed against the Irrigation Department (DGI).

b. Activities for acquisition under the Land Acquisition Act and taking over of the government lands by the department

- Applications submitted for the acquisition of six plots of land in the year.
- Applications submitted for taking-over six plots of government land.

c. Activities related to Irrigation reservations

- The irrigation reservation limits (Draft) document prepared by a specialist committee was submitted to the Ministry of Lands.

d. Actions performed under the RTI Act.

- An awareness program on RTI Act was conducted for the relevant officers in headquarters, regions and divisions.
- Eighteen inquiries were received by the headquarters, out of which information was provided for 14 cases. At the same time, four were found inconsistent with the RTI Act.

6.5.4 Regional wise allocation Distribution and Expenditure

Table 6-16: Regional wise allocation distribution and expenditure

Region	Allocation Rs. '000	Expenditure Rs. '000	Physical Progress %
Anuradhapura	32.4	32.4	100%
Head Office	14.6	14.6	100%
Polonnaruwa	203.0	203.0	100%
Total	250.0	250.0	100%

6.5.5 Staff position

Table 6-17: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit
01.	Chief Engineer	1	1	-
02.	Assistant Director (Land)	1	0	1
03	Legal Officer	1	1	-
04.	Engineering Assistants	2	2	-
05.	Development Officers	5	5	-
06.	Management Service Officer	2	1	1
07.	KKS (multi purpose)	1	-	1
Total		**13**	**10**	**03**

6.6 Research Support & Process Improvement Branch

6.6.1 Objectives

To provide continued support for improving processes associated with performing the functions of the Department through a research-oriented approach. In addition, the branch offers support and guidance for enthusiastic officers to conduct research studies in engineering, science, administration, social science, accountancy and other particular fields related to the improvement of processes in the Department while addressing present issues in the irrigation sector in general. The unit functions under a director with the supervision of the Additional Director General of Irrigation (Systems Management).

6.6.2 Functions

- Identification of process improvement needs and research needs of the Department.
- Providing necessary support and guidance to Department officers to conduct research.
- Coordination with universities and other research organizations on research opportunities.
- Carry out research and studies in collaboration with universities, other research organizations, institutes and other relevant agencies when required.
- Identify critical areas of performance lags, propose strategies for process improvement, and assist in implementing them in the Department.
- Dissemination of knowledge related to process improvement in the field of irrigation and water resources.

6.6.3 Performance

The performance and achievements of the Branch during the year 2022 are given below.

a. Initiation of numerical modeling of PKWs incorporating the physical model results of the Giritale PKW spillway

The model study on the determination of PKW configurations to improve the hydraulic performance of spillways of tanks in Sri Lanka was continued at the Hydraulics Research Laboratory of the Department. However, power cuts and the directions on energy saving by the government caused limited opportunities for carrying out physical modeling. Further, the restrictions on the expenditure for non-urgent work also adversely affected the process. In this background, testing the ability to adopt numerical models instead of physical models was initiated as a postgraduate research project in collaboration with Kothalawala Defense University with Prof. W.C.D.K. Fernado, Dr. R.M.P.S. Bandara and Eng. Shaluka Wijesiri.

Figure 6-33: Experimental set-up - Flow over the PKW physical model with a scale of 1:20

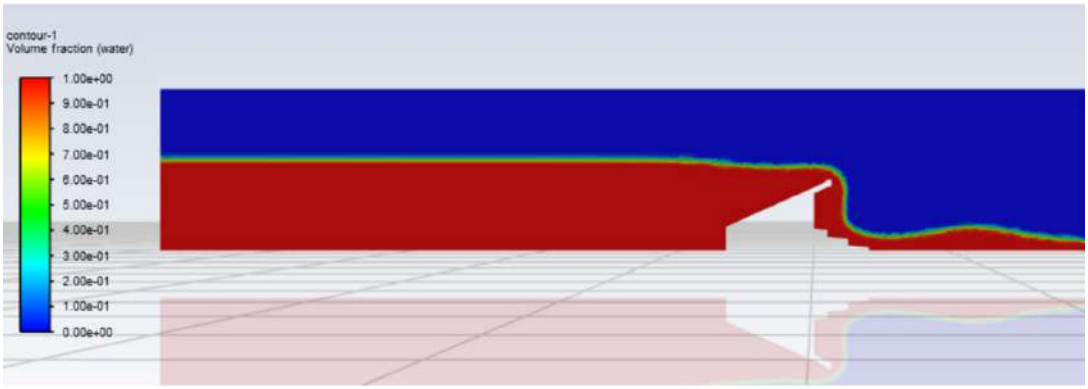


Figure 6-34: CFD model of flow over PKW Giritale

Computational Fluid Dynamics (CFD) is a branch of fluid mechanics that uses numerical analysis and data structures to analyze and solve problems that involve fluid flows. Computers are used to perform the calculations required to simulate the free-stream flow of the fluid and the interaction of the fluid (liquids and gasses) with surfaces defined by boundary conditions.

In this CFD model, a PKW unit consisting of half the inlet key and half the outlet key, which resulted in a total of 2550 mm width, was modeled to reduce the computational domain. This study attempted to determine the input parameters relevant to the Type A PKW implemented at the Giritale reservoir. The results revealed that the CFD modeling could be a viable tool for assessing alternative PKW configurations as the PKW has a large number of parameters that affect its hydraulic performance. The experience gained from the physical modeling was shared, and the Research Support and Process Improvement Branch provided guidance.

In addition, as the Piano key weir has been identified as one of the technological interventions that can handle exceptional floods of reservoirs while improving dam safety. The concept was disseminated by exhibiting a model of PKW by Hydraulics Research Laboratory. For this purpose, the pamphlet shown in the figure was published by the Research Support and Process Improvement Branch.

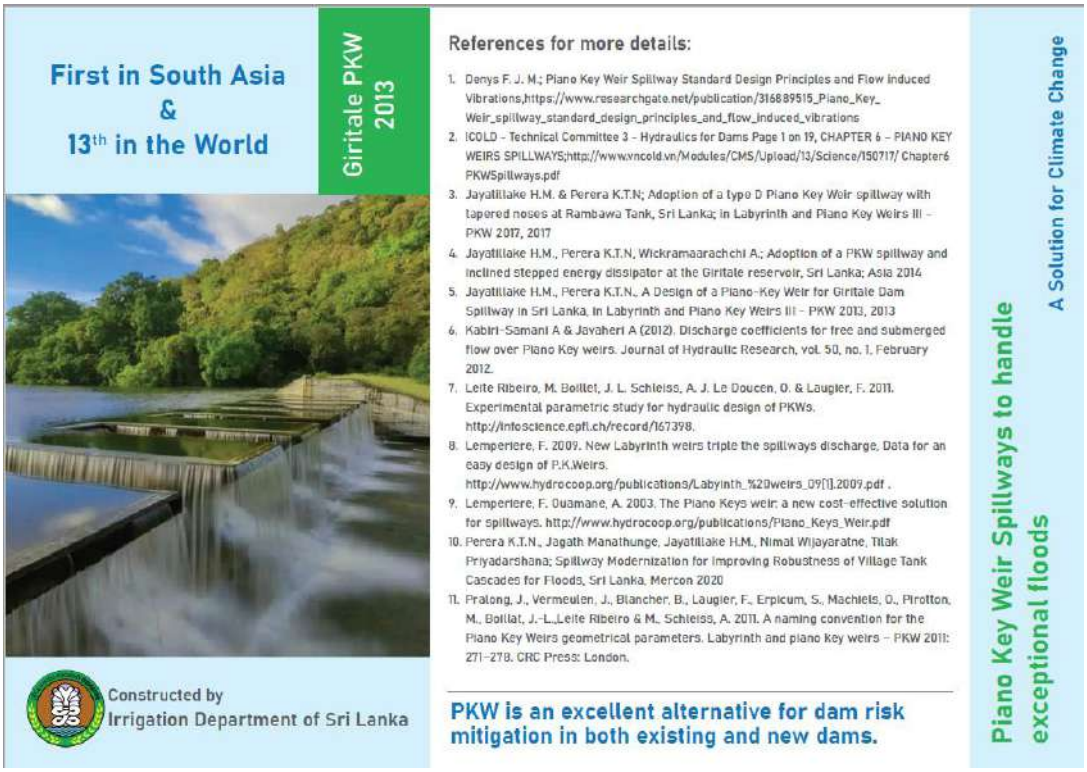


Figure 6-35: The pamphlet published on Giritale PKW

b. Process improvement activities: Staff database and progress tracking database of pension preparation

The staff database established in 2019 was successfully continued for the fourth year. The databases were updated regularly based on the responses from the officers handling the personal files in the administrative units of the headquarters and the 14 regions. In addition, it was shared with accounts sections of the regions to integrate payroll data with the staff database making easy reconciliation of staff numbers. The permanent staff of the Department was 5,375 at the beginning of the year and increased to 5,575 with the recruitment of Development Officers to the government service. However, the decisions on freezing the staff of the government sector and increasing the retirement age to 65 years were changed in the latter part of the year, and hence around 150 employees were sent on retirement. Therefore, the resultant of transfers, retirements and recruitments made, the cadre existing at the department was the same as at the beginning of the year.

The physical progress of the preparation of pensions was also traced by using the database. However, some activities were delayed due to the effect of the economic crisis prevailing in the country. These databases provide staff management information to relevant parties as and when required. The Branch maintained these databases as decision support tools for effective communication of personnel management information.

c. Process improvement activities: Development of a database of efficiency bar examination results of different cadre categories.

Engineering Assistants of the Department belong to an internal departmental service. Therefore, out of ten examinations conducted by the Training Branch, six are for the Engineering Assistants as per their service minute. The requirement of having a database was highlighted to retrieve the past results

of officers for taking different management decisions on their administration matters. Hence, the development of a database on EB exams was initiated and completed by entering all the results of the examinations conducted by the Training Branch up to the end of the year 2022. Maintenance of the database will facilitate providing information on efficiency bar examinations of different cadres quickly and effectively.

d. Pilot Initiative of Registering Engineering Technicians in the Public Sector

The Branch continued the pilot program initiated for the registration of Engineering Technicians in the Public Sector with the approval of the Secretary to the Ministry of Irrigation. The registration process aimed to motivate the staff to develop their skills, receive formal recognition for their competencies, and improve the quality of their technical work.

However, the conflicts and financial crisis that occurred in the country slowed down the process, and some legal barriers between the council and some unions aggravated the situation. Nevertheless, eight candidates of the Department appeared as the first batch for the interview held on 2021-12-17 was qualified for registration under ECSL as the first batch of Engineering Technicians from the public sector and received their certificates. An administration circular on the registration of engineering technicians is yet to be issued.

6.6.4 Staff position

Table 6-18: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit
01.	Director of Irrigation	1	1	0
02.	Chief Engineer	1	0	1
03.	Senior Irrigation Engineer	1	1	0
04.	Earth Resources Engineer	1	0	1
05	Development Officer	1	0	1
06.	Management Services Officer	1	0	1
07.	KKS	1	0	1

7 Riverine Management Sub Department

The Riverine Management Sub Department was established in January 2018 as stipulated under a cabinet memorandum dated 2017-09-19 submitted by the Ministry of Irrigation and Water Resources Management. The objectives of establishing the Riverine Management Sub Department is to formulate new strategic approach associated with the water resources of Sri Lanka in development, management and conservation activities of river basins with proper coordination and participation of all parties including government institutions and other stakeholders in order to maintain physical and ecological balance and the conservation of river basins.

Drainage and flood systems and Riverine management are the two branches under the Riverine Management Sub Department.

7.1 Riverine Management Branch

The Riverine Management branch was established under the Riverine Management Sub Department.

7.1.1 Functions

The functions of the Riverine Management branch are;

- Formulating natural river profiles.
- Identifying erosion, deposition reaches and existing level of erosion in rivers.
- Studying flood behavior of main river basins.
- Analyzing flood storage capacities along the river and mapping.
- Studying energy management of the river basins.
- Identifying level of water pollution in rivers and implementing programs to prevent pollution.
- Sediment transport studies in identified rivers.
- Implementation of river bank conservation works.
- Formulating land use policy on river reservations.
- Identifying public recreation opportunities in a riverine environment.
- Conducting programs for public awareness on conservation of river basins.

7.1.2 Performance

An allocation of Rs.105 million under 5 votes has been distributed among 14 regions during 2022. The given amount was allocated quarterly throughout the year. The vote wise allocation and expenditure are given in the table below.

Table 7-1: Vote wise allocation distribution and expenditure

No	Vote	Allocation Released (Rs.)'000	Expenditure (Rs.)'000
1	Establishing River Profile in Major Rivers 282-2-2-5-2105-(11)-2	20,150	15,905
2	Community Awareness 282-2-2-5-2105-(11)-5	494	494
3	Embankment Protection 282-2-2-5-2105-(11)-6	53,668	40,457
4	Clean River Program 282-2-2-5-2105-(11)-8	6,021	5,255
5	River Basin Management 282-2-2-5-2105-(11)-9	25,208	24,899
Total		**105,542**	**87,011**

a. Establishing River profile in major rivers

The aim of establishing river profile is taking longitudinal sections by conducting cross sectional surveys along the rivers. The data collected through these surveys can be used in identifying the river bank erosion and bed level degradation. It will be then used in preparing and designing appropriate restoration methods and control inappropriate activities causing damages to the rivers in the future. Due to the economic crisis of the country most of the works undertaken in the year 2022 were continuation or the remaining work from the previous year. The surveys for river profiles were continued for Ma oya, Mahilawadduwan river- Batticaloa region, Kalu Ganga etc :

Figure 7-1: Surveying of River profile of Kalu Ganga

Figure 7-2: Clearing obstacles along the Nilwala River from Akuressa to Pitabeddara

Figure 7-3: Clearing obstacles along Digilioya from Maliduwa to Diyalape

Figure 7-4: Clearing obstacles along the Ginganga River from Deniyaya to Hathmala Ella

b. Community Awareness

Community awareness programs were conducted to raise awareness of the river embankment protection methods in Moravil scheme and in Nilwala river conducted by Ampara and Galle regions respectively. Also informative name boards were fixed near Malwathu Oya in Anuradhapura region.

This year the "World Rivers Day" was celebrated on 27th September 2022. The Irrigation Department declared the theme of the World Rivers Day as "A river can make all the difference". The Riverine Management Branch implemented a program to celebrate the Rivers Day associating with all the regional offices of ID via Zoom technology and physical presence of the Engineers at the Head Office.

Prof. Lalith Rajapaksha a senior lecturer, Department of Civil Engineering, University of Moratuwa delivered the key-note speech on "Sediment transportation and river morphology". It was an informative lecture which provided a comprehensive knowledge on sediment transportation, river morphology and river training which will be helpful for the Irrigation officials when identifying the issues related to river and riverine environment and providing the most appropriate technical solutions in solving the issues in the future.

c. Embankment Protection

The major task of this vote is to protect the river banks using suitable and economically viable embankment protection methods. Priority was given for the continuation of works which protect the properties such as houses, cultivated lands and infrastructures such as roads, bridges, railway etc. Mainly re-vote items were completed in the year 2022.

Figure 7-5: Construction of Gabion wall at Bolana in Walawa River Left bank

Figure 7-6: Improvements to Naathanodai flood protection bund from 0+270 to 0+360

d. Clean River program

The aim of this programme is minimizing the load of the solid waste dumped into the riverine environment including the water way, river banks, flood bunds, reservations and identified corridors along both river banks and eventually leads in maintaining better river water quality, maintaining a pleasant riverine environment and minimizing solid waste added to the sea.

e. River Basin Management

Improving recreation facilities in the riverine environment including landscaping works, construction of car parks, children parks, jogging tracks, bathing places etc were carried out under the vote. Some of the work continued under the vote from 2021.


Figure 7-7: Removing aquatic plants along Neelabemma feeder canals in Neelabemma scheme


Figure 7-8: Construct jogging tracks near Halpanu Ela access road

7.1.3 Staff Position

Table 7-2: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit
1	Director of Irrigation	01	01	-
2	Chief Engineer	01	01	
3	Irrigation / Earth Resource Engineer	01	01	-
4	Engineering assistant	01	01	-
5	Draftsman	01	00	01
6	Management Service Officer	02	02	-
7	Laborer / KKS	01	01	-

7.2 Drainage and Flood Systems Branch

7.2.1 Objectives

- Facilitating the paddy cultivation in drainage, flood systems and saltwater extrusion schemes in low line areas by maintaining proper drainage, by protecting them from floods or by protecting such areas from saltwater intrusion.
- Providing structural flood countermeasures for the areas prone to floods for protecting human lives, public and private properties and the environment from flood disasters.

7.2.2 Functions

- Operation and Maintenance of drainage and flood systems in the country.
- Rehabilitation of drainage and flood systems.
- Operation and Maintenance of and salt water extrusion schemes of the country.
- Planning new drainage and salt water extrusion schemes identifying the requirement.
- Submission of project proposals for new drainage, salt water extrusion and flood systems.
- Implementation of major and medium projects comes under drainage, salt water and flood protection scopes.
- Representing national level technical committees for technical advice and recommendations for national projects, with respect to drainage and flood issues.
- Issuing recommendations for public and private development activities which are having issues on flood and drainage.

7.2.3 Performance

a. Kelani North Bund Rehabilitation Project

Kelani North Bund Rehabilitation was proposed by the drainage & flood systems branch in order to rehabilitate existing North bund including minor flood protection structures as it was identified during the flood- 2016 that the bunds and the minor flood structures are not in safe conditions. These structures were built by the Irrigation the Department a long time ago. The project commenced in year 2018. Annual allocation for the project in year 2022 was Rs.200 Mn and the expenditure at the end of year is Rs.95.782 Mn and cumulative expenditure of the project at the end of 2022 is 430.525 Mn. Rehabilitation of most critical locations of the bund including river bank protection to protect the bund was continued in the year. In addition, some minor flood protection structures were rehabilitated.

b. Flood Mitigation Gin, Niwala, Kelani, Kalu Basins Project

Flood mitigation in Mundeni Aru, Gin, Nilwala, Kelani and Kalu basins project was commenced in 2018. The objective of this project is to take urgent actions required for flood mitigations in the basin until the basin investment plan will be implemented. As the Mundeni Aru basin flood mitigation project has already commenced, more concentration was given for the Nilwala, Gin and Kalu river basins flood mitigation works. Total estimated cost of the project was revised to Rs. 2100 million considering the new projects comments in the basins. Annual allocation of the project for the year is Rs.100 Mn. and the expenditure at the end of year is Rs. 84.164 Mn. The cumulative expenditure of the project is 394.27 Mn.

c. Pethiyagoda Pump House

Construction of Pethiyagoda pump house was proposed in the year 2014. But due to land acquisition problems, it was a long delay to implement. Therefore, it was decided to re-design the pump house with minimum land acquisition requirements. So, a new design and estimate was prepared and procurement work was completed. The estimated cost of the project is Rs.755 Mn. And Rs.200Mn allocation was provided in 2022. Accordingly, the letter of acceptance of the relevant bid has been sent to the contractor. But they said the grant was not acceptable due to the current price increases.

d. Clearing Drainage canals

Clearing Drainage canals in Colombo, Kalutara, Gampaha, Galle, Matara, Batticaloa, Ampara, Hambantota, Puttalam, districts project was commenced in the year 2022. The main objective of this project is the providing safe and quick passage for high flood by widening, straightening and removing the blockages in the drainage canals, Protection of reservation by doing regular maintenance of the canals and bunds, protection of human beings and properties during floods by reducing inundation time. Rs. 350 Mn allocations were provided in 2022 and the expenditure at the end of year is Rs. 142.63 Mn.

Figure 7-9: Clearing Drainage Canals – Ampara

Figure 7-10: Clearing Drainage Canals – Batticaloa


Figure 7-11: Clearing Drainage Canals – Ambalangoda (Bentara Ganga Basin)

e. Coordination and monitoring of operation and maintenance of Drainage & Flood Protection Systems in Sri Lanka

The Summary of the financial progress of the operation and maintenance of the Drainage and Flood Protection vote is as follows.

Table 7-3: Summary of Financial Progress -2022

Region	Allocation (Rs. Mn)	Expenditure (Rs. Mn)
Colombo	3.0	2.68
Galle	4.0	3.96
Total	**7.0**	**6.64**

7.2.4 Staff Position

Table 7-4: Staff Position

Designation	Required	Available	Deficit / Excess
Director of Irrigation	1	1	-
Chief Engineer	1	0	1
Irrigation Engineer	2	1	1
Engineering Assistant	1	1	-
Draughtsman	2	1	1
Development Officers	1	0	1
Management Assistant	2	0	2
KKS	1	1	-
Labour (Acting as clerk)	0	2	(2)

8 Branches Functioning under DGI

8.1 Programme Management Branch

8.1.1 Objective

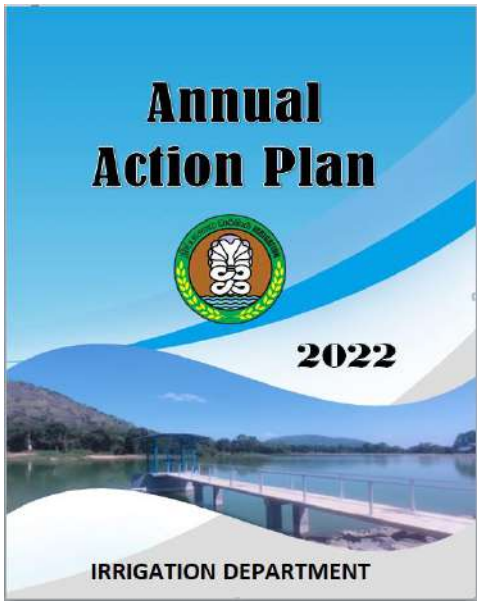
Process of capital budget planning for sustainable development and assist to ensure the implementation of the programmes and projects according to the annual action plans of the department.

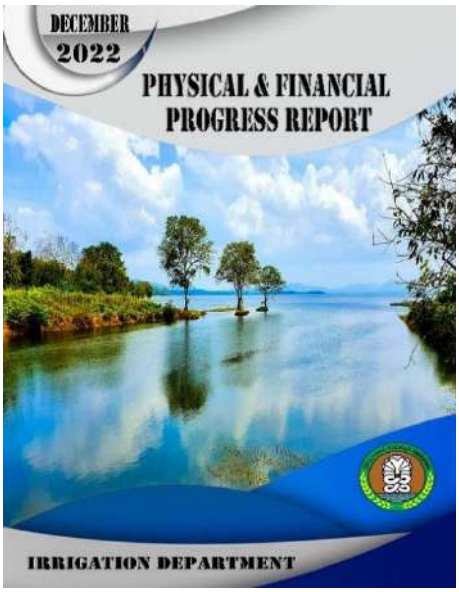
8.1.2 Functions

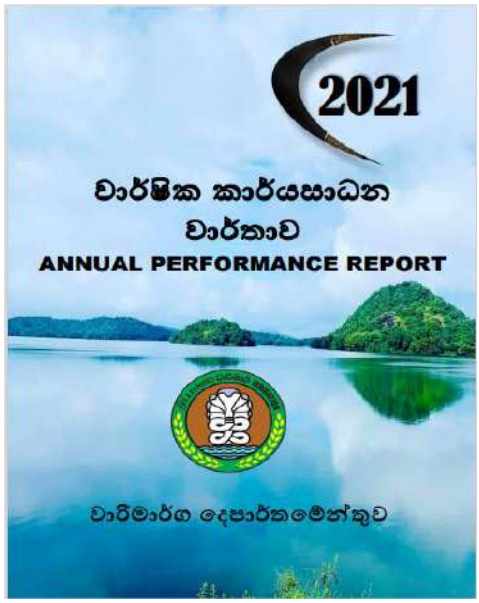
- Preparation of the Capital Budget and the long- term financial and physical programs of the Department for successive years according to the guidelines given by the Department of National Budget.
- Preparation of Implementation Programmes (Action Plan) during the year according to the guidelines given by the Department of Project Management and Monitoring at the beginning of each financial year.
- Monitoring of monthly implementation Programme during the year according to the master programme prepared at the beginning of the year.
- Submission of progress report in the required format to the Ministry of Irrigation and Department of Project Management and Monitoring.
- Preparation of Administration reports, Performance reports, and Annual plans.
- Obtaining approvals for new project proposals from the National Planning Department.
- Preparation of Cabinet Memorandums to get approval for new projects when required.
- Preparation and submission of information to "Committee on Public Accounts" in the Parliament.
- Submission of Performance data of the Irrigation Department to other organizations (Central Bank, Department of Census and Statistics, etc)
- Coordinate with the finance branch regarding capital budget.

8.1.3 Performance

- Preparation of Annual Action Plan for year 2022.
- Preparation of Monthly Physical and Financial Progress reports for 2022 (12 reports).
- Preparation of Quarterly Progress reports for Major & Medium projects. (4 reports).
- Preparation of draft Capital Budget for the year 2023.
- Preparation of Annual Performance Report for the year 2021 according to the format given by the Department of Public Finance and submitted to the Ministry of Irrigation.
- Preparation of Administration Report for 2021 and printing.
- Preparation of progress and investment report (2022-2023) to the parliament.
- Allocation transfers as requirements.
- Other related works assigned by the Director General of Irrigation.
- Organizing progress review meetings.







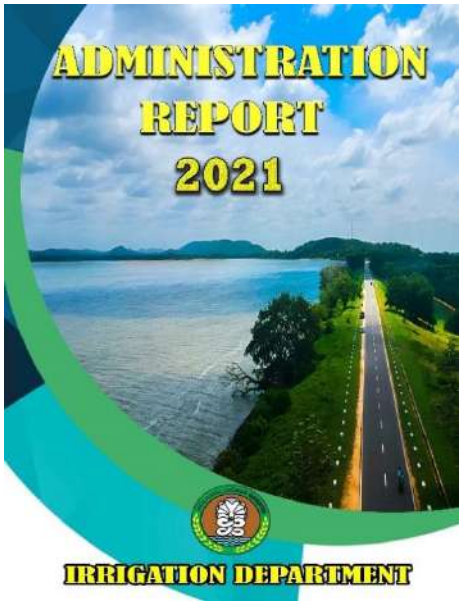


Figure 8-1: Works done by the Programme Management Branch

8.1.4 Staff Position

Table 8-1: Staff position of the branch

Designation	Required cadre	Available cadre	Excess/ deficit
Director of Irrigation	1	1	0
Chief Engineer	1	0	1
Irrigation Engineer	1	1	0
Engineering Assistant	1	1	0
Draughtsman	2	2	0
Development Officer	1	1	0
Management Service Officer	2	2	0
KKS	2	1	1

8.2 Contract & Procurement Branch

8.2.1 Objectives

- Procuring Works, Goods / Services and Consultancy Services by maximizing economy, timelines and quality in procurement resulting in least cost together with high quality.
- Adhering to prescribed standards, specifications, rules, regulations and good governance.
- Providing fair, equal and maximum opportunity for eligible interested parties to participate in procurement.
- Retaining confidentiality of information provided by bidders.

8.2.2 Functions

- Preparation of Procurement Plan for procurement of Goods & Services for Irrigation Department.
- Registration of Goods & Service Providers at the beginning of every year including calling applications for registration.
- Inviting application for Registration of Construction Machineries and Vehicles Hiring Suppliers (Regional wise) at the end of every year.
- Inviting application for Registration of Contractors (Regional wise) at the end of every year.
- Preparation of Bidding Document / Request for proposals under ICB / NCB / NS or any other government approved methods.
- Activities related to appointment of TEC, publication of Procurement Notices, Issuing of Bidding Documents, arranging Pre-bid Meeting, Site Visits, Bid Openings, Awarding Contracts / issuing purchase orders following the approvals of DPC / MPC, preparation of Contract Agreements.
- Opening of Letter of Credits and handling with procuring of Goods.
- Preparation of vouchers for payment to suppliers.
- Organizing Department Procurement committee meetings (DPC), preparation of DPC Meeting Minutes and carrying out DPC decisions.
- Facilitating to obtain DGI's approval for Divisional and Regional Procurement Committee decisions.
- Appointing Divisional and Regional Procurement Committees under the approval of DGI / Secretary, Ministry of Irrigation.
- Issuing Contract/ procurement Circulars whenever necessary.
- Assisting Head Office, Branches, Regional DII and DIEE for their procurement activities.

8.2.3 Performance

a. Signed Agreements

- Procurement of Consultancy Service for Initial Environmental Examination for Construction of Galgekandiya Tank in Ampara District
  (Contract No: ID/HO/CT/ENV/2022/01)
- Procurement of Comprehensive Insurance Coverage for irrigation Department Vehicles-Passenger vehicles
  (Contract No: ID/HO/VEH.INS/NS/2021/14-Lot No: 01)

- Procurement of Comprehensive Insurance Coverage for irrigation Department Vehicles-Heavy vehicles
  (Contract No: ID/HO/VEH.INS/NS/2021/14-Lot No: 02)
- Providing of Janitorial Service to Irrigation Headquarters & other Buildings
  (ID/HO/CT/Jan.Ser/NCB/2022/04)
- Providing of Security Service to Irrigation Headquarters & other Buildings
  (ID/HO/CT/Security/NCB/2022/06)
- Improvements to Arawatta Tank bund in Nagadeepa Scheme
  (Contract No: LK-MOMDE-125496-CW-RFB)

b. Contract Awarded

- Fabricating Supplying and Installation of Cast iron Sluice gate, Emergency gate and Trash rack for Ellewewa Reservoir Sluice
  (Contract No: ID/HO/CT/Ellewewa Gates/2022-02)

c. Procurement Notices Published

- Rehabilitation of D1, D2, D4 canals in Bathalagoda Scheme
  (Contract No: LK-MOMDE-302519-CW-RFB)
- Rehabilitation of D5, D7, D7 RB canals in Bathalagoda Scheme
  (Contract No: LK-MOMDE-302531-CW-RFB)
- Improvements to Muhanthankulam main canal from 0+000 to 4+400 of Muhanthankulam Scheme
  (Contract No: LK-MOMDE-125494-CW-RFB)
- Improvements to Akathimuruppu Tank bund from 0+000 to 6+450 of Akathimuruppu scheme
  (Contract No: LK-MOMDE-124595-CW-RFB)
- Improvements to Main canal and D canal including Improvement to existing structures of Dewahuwa scheme under IWWRMPP
  (Contract No: LK-MOMDE-123606-CW-RFB)
- Providing of Rip Rap protection to Senanayaka Samudraya bund & Improvements Bund Road (Package 01)
  (Contract No: LK-MOMDE-302734-CW-RFB)
- Providing of Janitorial Service to Irrigation Headquarters & other Buildings
  (ID/HO/CT/Jan.Ser/NCB/2022/04)
- Providing of Security Service to Irrigation Headquarters & other Buildings
  (ID/HO/CT/Security/NCB/2022/06)
- Registration of Contractors-2023

d. Department Procurement Committee Meetings

- 23 Nos DPC meetings were conducted.

8.2.4 Performance of Procurement Branch

a. Registration of Goods & Service Providers for Year 2023

No of Advertisements Published - 03
No of Applications Received for Supplier Registration - 273
No of Applications Registered - 270
No of Categories Registered - 81
No of Applications Rejected - 03

b. Items Procured

Table 8-2: Items procured

No	Item Description	Qty	Amount (Rs.)	Total Amount (Rs.)
1	**Office equipment**			
1.1	Multimedia Projectors	14	1,794,072.00	**2,990,610.00**
1.2	Multimedia Projectors (RO)	1	128,148.00	
1.3	A3 Colour Photocopier	1	652,698.00	
1.4	Fax Machines	8	277,128.00	
1.5	Fax Machines (RO)	4	138,564.00	
2	**Geological equipment**			
2.1	Diamond Core Bits and Drilling Accessories (2nd & Final Payment)	Lot	21,275,676.00	**21,275,676.00**
3	**Machinery**			
3.1	Bush Cutters (2nd & Final Payment)	116	1,160,092.80	**56,582,657.30**
3.2	Gap-bed Lathe Machines	2	9,950,000.00	
3.3	Amphibious Excavators (2nd & Final Payment)	1	39,950,000.00	
3.4	Steel for Anicut Gates of Kelani River	Lots	5,522,564.50	
4	**Hydrological Instruments**			
4.1	Hemisphere S320 GPS Batteries	12	660,000.00	**660,000.00**
5	**Other**			
5.1	Video Conference System at the Irrigation Department - Room No. 402	1	1,120,380.00	**15,245,802.00**
5.2	Re-design of Irrigation Department Website (2nd, 3rd & Final Payment)	System	776,750.00	
5.3	DSLR Camera	2	3,244,976.00	
5.4	Wireless Lavalier Microphone	2	128,000.00	
5.5	Smart Board with LCD Monitor Lift System	1	1,773,220.00	
5.6	Drone Camera	1	234,900.00	
5.7	Mini Video Conference Systems	12	6,283,920.00	
5.8	Procurement Notice	7	1,683,656.00	
Grand Total				**96,754,745.30**

8.2.5 Staff Position

Table 8-3: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit / Excess
1	Director of Irrigation	1	1	-
2	Chief Engineer	1	0	1
3	Irrigation Engineer	2	1	1
4	Engineering Assistant	5	5	-
5	Management Service Officer	6	3	3
6	Office Assistant	3	1	2
7	Labour	-	1	(1)

8.3 Training Branch

8.3.1 Objectives

To increase the knowledge, enhance the skills and develop the attitude of the employees for delivering a productive service through increasing awareness and providing motivation.

8.3.2 Functions

- Arrangement of training programs according to the recruitments of all the service categories of the department.
- Coordination of all the foreign training programs (short term, refresher courses, postgraduate diplomas, Masters, and PhD degrees) with the External Resources Department and providing necessary assistance to the selected candidates for participation in the programme.
- Conducting recruitment exams and efficiency bar exams according to the SOR of the departmental services.
- Conducting efficiency bar examinations of other services where necessary.
- Management of pre-service training programmes.
- Management of in -service training programme.
- Coordination of all the local training programs with training institutes like Universities, SLIDA, SLF ect.. and providing necessary assistance for participation of the programme.
- Coordination of all the postgraduate diplomas and Masters degrees programmes with the universities and providing necessary assistance to the selected candidates for participation of the programme.
- Providing necessary arrangements for the training requirement of the candidates in other organizations such as Universities, Technical Colleges, Government and private institutions.
- Coordinate with Irrigation Training Institute Galgamuwa when and where necessary.
- Arranging in-plant training for the university and technical College students.

8.3.3 Performance

a. Details of Foreign Programmes

Table -8-4: Details of Foreign Programmes – 2022

No	Name	Designation	Course No	Course	Country	Duration	Starting Date	Funding Agency
1	Eng.R.D.T.Kaushalya	IE	1	Master's Degree Program in Flood Disaster Risk Reduction, National Graduate Institute for Policy Studies (GRIPS) and the public Works Research Institute (PWRI), Japan	Japan	01 Year	28-Sep-22	JICA
2	Eng.N.P.Koswatta	CE (Act.)	2	Australian Awards Scholarships (AAS) – Intake for Academic Year 2022	Australia	2 Yrs.	6-Aug-22	Australian Government
3	Eng. T.Suganthalingam	IE	3	Training Program on Assessing Drought Risks using Earth Observation Dt & Launch South Asia Drought Management System (SDMS)	India	6 Days	30-Aug-22	GIDM
4	Eng.M.H.M.Azarudeen	ERE	4	ITEC: Training Slots under the India Technical & Economic Co-operation (ITEC) Scholarship Scheme of the Ministry of External Affairs, Government of India for the Year 2022-2023	India	31 Days	21-Nov-22	ITEC
5	Ms.H.M.K.Kaldera	EA	5	Training Program on Computer Application on Agriculture Extension	India	16 Days	12-Sep-22	ITEC
6	Eng.K.D.N.Siriwardana	DGI	6	14th RIMES Council Meeting on 11-12 November 2022	Thailand	4 Days	9-Nov-22	RIMES
7	Eng.T.J.Meegastenna	Addl.DGI	7	15th RIMES Council Meeting on 11-12 November 2022	Thailand	4 Days	9-Nov-22	RIMES

b. Local Training Programmes

Table -8-5: Local Training Programmes in 2022

S.I. No	Name of the programme	Institute	For Whom	No. of participants	Programme duration	Cost per Head (Rs)	Total Cost (Rs)
1	Higher National Diploma in Public Procurement and Contract Administration	SLIDA	EA	01	14 months	120,000.00	120,000.00
2	Aerial Photography using Drone (UVA) Technology	University of Peradeniya	IEE	03	03 days	50,000.00	150,000.00
3	Workshop for Euro code - 07	Sri Lanka GeoTechnical Society	IE	01	01 day	16,000.00	16,000.00
4	In-service Training for General Staff	Irrigation Department	General Staff	60	6 days	-	48,000.00

c. Post Graduate Programs

Table 8-6: Post graduate programs in 2022

S.I. No	Name of the programme	Institute	For Whom	No. of participants	Programme duration	Amount (Rs)
1	Master of Science Degree in Water Resources Engineering & Management	University of Moratuwa	IEE	8	2 Years	2,800,000.00
2	Postgraduate Programme in Geotechnical Engineering	University of Peradeniya	IEE	1	2 Years	250,000.00

d. Examinations conducted

Table 8-7: Examinations conducted during the year 2022

S.I. No	To Whom	Name of the Examination	Dates Conducted	No. of participants
1	Engineers in SLES Class III	First Efficiency Bar examination	1/12/2022	53
2	Technical Aids in Grade III	First Efficiency Bar examination	30/08/2022	184
3	SLSS Officers in Grade III	First Efficiency Bar examination	1/12/2022	4
4	Draughtsman	Limited Recruitment Examination	25/11/2022	30
5	Engineering Assistant Grade II	Second Efficiency Bar examination	27/06/2022	56
6	Engineering Assistant Grade III	First Efficiency Bar examination	6/9/2022	32
7	Engineering Assistant	Senior Technical Examination (Practical)	6/6/2022 to 10/6/2022 & 20/06/2022 to 24/06/2022	90
8	Engineering Assistant	Junior Technical Examination (Practical)	21/02/2022 to 25/02/2022 7/03/2022 to 11/03/2022 & 6/06/2022 to 10/06/2022	49
9	Engineering Assistant	Senior Technical Examination (Theory)l)	15,16,22,23/10/2022	342

e. In plant training programme

It was arranged in plant training programme for 65 students from the university and technical college students

8.3.4 Staff Position

Table -8-8: Staff Position of the branch

No	Position	Approved Cadre	Available Cadre	Deficit / Excess
1	Director of Irrigation	1	1	-
2	Chief Engineer	1	1	-
3	Irrigation Engineer	1	1	-
4	Engineering Assistant	4	4	-
5	Management Service Officer	3	0	3
6	Development Officer	1	1	-
7	Office Assistant	1	0	1

8.4 Works General and Building Services Branch

8.4.1 Objective

- Facilitate for effective utilization of resources within head office premises.
- Assist DGI in parliamentary consultative meetings, public grievances on miscellaneous mattersand matters discussed in all media.
- Facilitate for smooth functioning of all categories of services in regional offices as well ashead office.
- Facilitate for a comfortable working environment for employees of ID.

8.4.2 Functions

- Reservation of accommodations in 42 number of field circuit bungalows all over the country.
- Upkeep and maintenance of PABX inter-communication services including departmental telephone directory.
- Provision of garage facilities for departmental vehicles attached to head office staff and private vehicles of head office staff.
- Provision of approval for social activities within the head office premises organized by the welfare society and for Auditorium facilities for different departmental activities.
- Management of office space by rearranging & allocating rooms for different branches in the department premises.
- Arranging holiday pay approval forms of all staff and field officers in the department for DGI's approval & for the secretary's approval.
- Coordinating leave approvals of regional directors by maintaining diary abstracts.
- Organizing quarterly forums of Directors conference including preparation meeting minutes.
- Miscellaneous matters which are not assigned under the functions of other branches such as Parliamentary consultancy committee matters, public petitions, the nomination of staff for different committees requested by other departments & organizations, etc.
- Construction, maintenance & improvement works in Irrigation Head office, Lot 34 premises and Quarters in Rathmalana and Wellawatta.

8.4.3 Performance

a. Works General

- Organizing official functions such as ceremonies chaired by Hon. Minister, Director General of Irrigation and other meetings in the year 2022.
- Preparation of compressive answers with the coordination of relevant sub department/ RDI / Project for the questions arising from parliament and parliament consultative committee meetings and also response to the public petitions/complaints/appeal coming from various institutions on Irrigation related problems. All those matters attended during the year 2022 can be classified as follows.

Table 8-9: Progress of Preparation of comprehensive answers

Ministry/Department/Institution	Numbers received	Replied with solutions
Parliament Question	10	10
Public petitions	382	294

- 1076 number of reservations among 42 Irrigation Department field inspection Bungalows.

b. Building & Building Services

- Emergency roof repairing works without material at A, B, C type 22 nos. of quarters and construction of new car park.
- Renovation of assets management branch.
- Upgrading Surge Protection devices at head office building.
- Demolishing and reconstruction works of the Geology branch.
- Electrical installation works of Geology branch.
- Finishing work on 2nd floor at Senior Staff Quarters Jawatta.
- Tilling works, application of titanium for walls, supplying labors for water base, painting works on the ground floor unit 03 and 04 at Senior Staff Quarters Jawatta.
- Electrical installation at Engineering Material Building 1st floor.
- Monitoring the Janitorial and Security services
- Maintenance works in Department head office building, Engineering Material building, Lot 34 and premises.
- Providing necessary facilities to various functions of the Irrigation Department.

8.4.4 Expenditure

Table 8-10: Expenditure during the year 2021

Vote particulars	Allocation (Rs. Million)	Expenditure (Rs. Million)
Irrigation Secretariat 282-1-2001-11-1	13.5	13.5
Rehabilitation of Rathmalana Housing Scheme 282-1-2001-11-3	7.6	7.6
Management Supporting facilities for Human Resources Development 282-2-2503-11-2	1.4	1.4
Welfare facilities 282-2-2503-11-4	1.5	1.5

8.4.5 Staff position

a. Works General

Table 8-11: Staff position of the Works General Branch

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
01	Director of Irrigation	01	01	-
02	Chief Engineer	01	01	-
03	Irrigation Engineer	01	00	1
04	Engineering Assistant	01	01	-
05	Technical Assistant	02	02	-
06	Development Officer	01	00	1
07	Management Assistant	03	02	1
08	KKS	03	02	1
Total		**13**	**09**	

b. Building & Building Services

Table 8-12: Staff position of the Building & Building Services Branch

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
01	Divisional Irrigation Engineer	01	01	-
02	Divisional Assistant	01	00	-
03	Engineering Assistant	06	04	2
04	Technical Assistant	07	07	-
05	Development Officer	02	00	2
06	Management Assistant	05	02	3
07	Draftsman	01	01	-
08	Storekeeper	02	01	1
09	Store helper	02	00	2
10	KKS	03	02	1
Total		**30**	**18**	

8.5 Machinery & Workshop Branch

8.5.1 Objectives

Maintenance repair and up keeping all vehicles, machinery and hydro mechanical structures attached to Irrigation Department.

8.5.2 Functions

- Administration and coordination of all Mechanical Workshops of the Irrigation Department to obtain optimum quality on mechanical works.
- Maintenance and repair of all vehicles and machinery in the Irrigation Department.
- Design, fabrication, installation and necessary repairs of hydro mechanical structures.
- Allocation of machinery within Divisions to achieve optimum utilization and efficient use.
- Assisting DII (Region) in flood and disaster situations by providing mechanical staff and other support.
- Preparing specifications to Vehicles, Machinery and Equipment and attending to technical evaluations according to the procurement plan.
- Development of mechanical workshops with new technologies and improvements of buildings.
- Development of skills of mechanical staff by providing training opportunities.
- Introducing innovative mechanical solutions.
- Implementing Financial Regulations on accident and losses.
- Implementation of productivity programs within the mechanical section.

8.5.3 Performance

Table 8-13: Performance of Machinery Branch

Item No.	Special work & Description	Work done by
1	Fabricate and installation of Bomiriya flood control Anicut gates at Kaduwela	Ampara Regional Workshop
2	Fabricate and installation of new entrance gate to upgrade the appearance of Ampara Regional Workshop	Ampara Regional Workshop
3	Repairing of Pannalgama Sluice gate and trash rack at Ampara	Ampara Regional Workshop
4	Fabrication and installation of Kudawilachchiya Radial Gates	Rambewa Regional Workshop
5	Farm Tractor repairs for Agrarian Department	Rambewa Regional Workshop
6	Sluice gate fabrication and installation of Lower Malwathu Oya Project	Rambewa Regional Workshop
7	Thalgahagoda Gravity gates fabrication and installation	Halpathota Regional Workshop
8	Handapanagala pickup anicut gates fabrication	Halpathota Regional Workshop
9	Weni Akula anicut gates fabrication and installation	Halpathota Regional Workshop
10	Tinkering and painting of Department vehicles	Halpathota Regional Workshop

Item No.	Special work & Description	Work done by
11	Overhauling axial flow pump at Magallagoda Pump house	Halpathota Regional Workshop
12	Kahagaha Amuna Gate repair at Weeraketiya	Lunugamwehera Regional Workshop
13	Maha Amuna and Unnansege Amuna Gate repair	Lunugamwehera Regional Workshop
14	Excavator machine repairs	Central Workshop Rathmalana
15	Fabrication of Workshop building at Puttalam workshop	Puttalam Regional Workshop
16	Fabrication of Radevibandiela Vertical gates	Puttalam Regional Workshop
17	Fabrication of Tractor Trailer	Kandy Regional Workshop
18	Barak plain Tank sluice repair	Kandy Regional Workshop
19	Fabrication and installation of collapsible flap gates at Wilgoda anicut	Kurunegala Regional Workshop
20	Repair and installation of cables to Hakwatuna Oya radial gates	Kurunegala Regional Workshop
21	Repair and installation of hoisting arrangements of Thanthuneriya main channel	Kantale Regional Workshop
22	Repair and installation of hoisting arrangements Mavil aru LB & RB channel	Kantale Regional Workshop

Figure 8-2: Fabricate and installation of Bomiriya flood control Anicut gates at Kaduwela

Figure 8-3: Fabricate and installation of new entrance gate to upgrade the appearance of Ampara Regional Workshop

Figure 8-4: Repairing of Pannalgama Sluice gate and trash rack at Ampara

Figure 8-5: Fabrication and installation of Kudawilachchiya Radial Gates

Figure 8-6: Farm Tractor repairs for Agrarian Department

Figure 8-7: Sluice gate fabrication and installation of Lower Malwathu Oya Project by Regional workshop Rambewa

Figure 8-8: Thalgahagoda Gravity gates fabrication and installation

Figure 8-9: Handapanagala pickup anicut gates fabrication

Figure 8-10: Weni Akula anicut gates fabrication and installation by Regional workshop Halpathota

Figure 8-11: Tinkering and painting of department vehicles

Figure 8-12: Overhauling axial flow pump at Magallagoda Pump house


Figure 8-13: Kahagaha Amuna Gate repair at Weeraketiya


Figure 8-14: Maha Amuna and Unnansege Amuna Gate repair


Figure 8-15: Excavator machine repairs


Figure 8-16: Fabrication of Workshop building at Puttalam workshop


Figure 8-17: Fabrication of Radevibandiela Vertical gates


Figure 8-18: Fabrication of Tractor Trailer


Figure 8-19: Barak plain Tank sluice repair

Figure 8-20: Fabrication and installation of collapsible flap gates at Wilgoda anicut

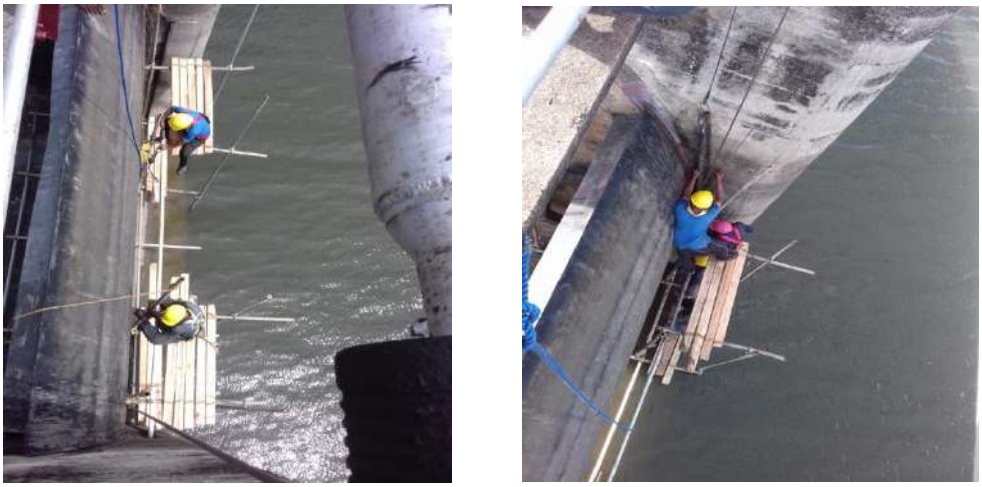


Figure 8-21: Repair and installation of cables to Hakwatuna Oya radial gates

Figure 8-22: Repair and installation of hoisting arrangements of Thanthuneriya main channel

Figure 8-23: Repair and installation of hoisting arrangements Mavil aru LB & RB channel

8.5.4 Financial Progress

Table 8-14: Financial progress of machinery branch

No	Vote	Description	Received Allocation (Rs.Mn)	Expenditure (Rs.Mn)
01	282-1-1-0-2002 (II)	Plant Machinery & Equipment	3	2.8
02	282-1-1-0-2003 (II)	Vehicles	15	13.2
03	282-2-2-0-2002 (II) 1	Plant, Machinery & Equipment	65.5	62.3
04	282-2-2-0-2003 (II)	Vehicles	25	23.9
05	282-2-2-0-2001 (II) 17	Improvements to Mechanical Workshop	0.499	0.499
06	282-2-2-0-2103 (II) 1	Purchase of Machinery	40	39.95
07	282-2-2-0-2013 (II) 6	Purchase of Equipment for Mechanical Workshop	-	-

8.5.5 Write off of Accident files

Predominant progress was achieved in settlement and write off of accident files during the year 2022.

No of accident files active as at 01.01.2022	64
New accident files opened within the year 2022	15
No of files write off within year 2022	26
Balance active accident files as at 31.12.2022	53

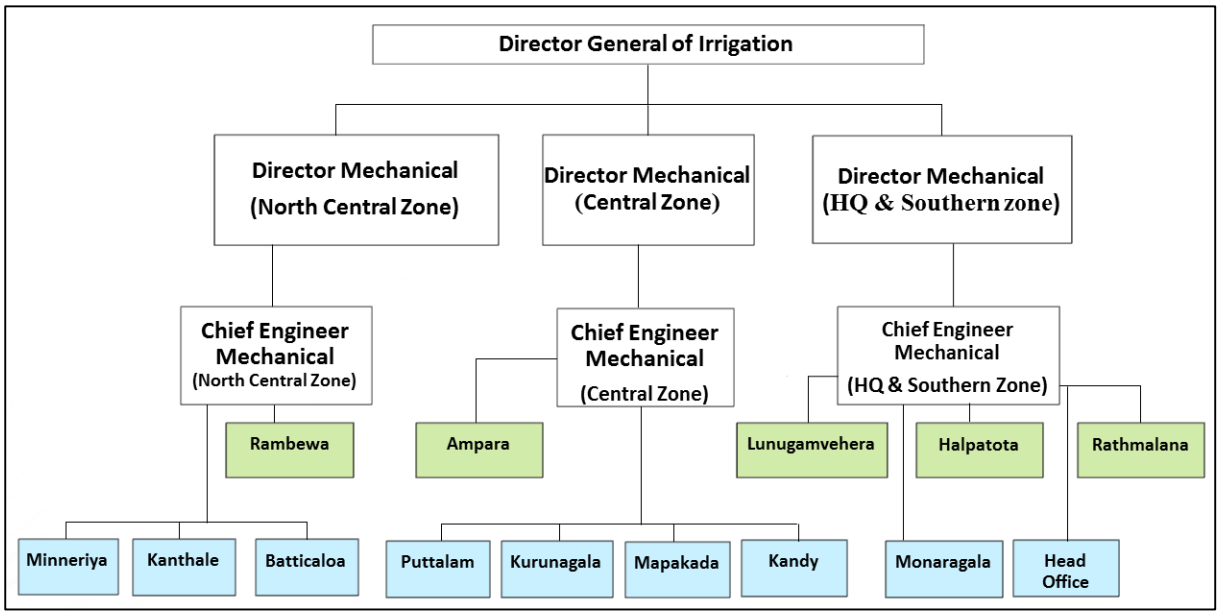
8.5.6 Purchase of machinery and equipment in 2022

During the year 2022 procurements were done and following machines were purchased for the revival of the Irrigation Department.

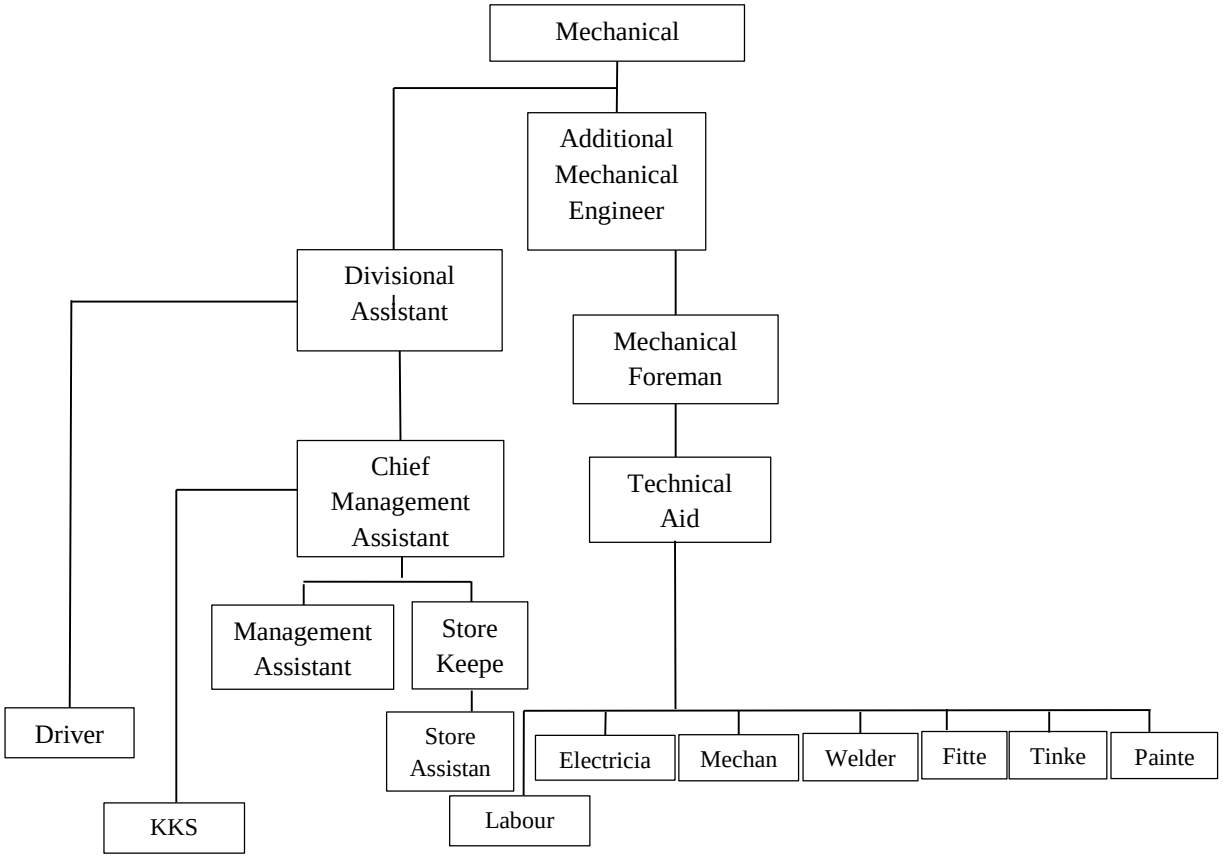
Table 8-15: Machines purchased during 2022

No.	Type of machine	Nos of machines	Expenditure (Rs.Mn)
01	Procurement of Amphibious Excavators	02	39.95
Total			39.95

8.5.7 Organization chart of Machinery Branch



8.5.8 Organization chart of a Mechanical Workshop



8.5.9 Staff Position

Table 8-16: Staff position of the branch

Item No	Positions	Head Office	Rathmalana	Halpathota	Lunugamvehera	Monaragala	DM Central	Ampara	Mapakada	Kandy	Puttalam	Kurunagala	DM_NC	Rambewa	Kanthale	Minneriya	Batticaloa	Total
1	Director Mechanical	1					1						1					3
2	Chief Engineer (Mech)	1					1						1					3
3	Mechanical Engineer	1	3	2	1	11		2	1	1	1	1		3	1	1		19
6	Development Officer	2		3	1		1					1	1					9
7	Mechanical Forerman	1	2	1	1	1						1		1				8
8	Management Assistant	3	5	5	2		1	4	1	1	1	2	1	4		1		31
9	Store Keeper		3		1	1		1	1			1		3	1	1	1	14
10	Technical Aide	1	3	2	1			2			1			1	1			12
11	Driver	39	2	5	5	3		4	2	1		2	1	4	1	1		70
12	Electrician	1	2					2				1		1			1	8
13	Mechanic	3	6	4	5	1		122	2	1	1	2		8	2	2	1	50
14	Welder		1	1	3	1		1	1		1	1		3	1			14
15	Tinker											1						1
16	Painter		2					1						1				4
17	Latheman			2	1				1									4
18	Fitter		1									1					1	3
19	Machinist			1				1										2
20	Blacksmith		1	1														2
21	Store Assistant	1	2			1			1			1	1	2	1	1		11
22	Operator			1				2	1									4
23	Tractor Operator	3	1			1	1	1	1							1		9
24	Water Pump Operator							1										1
25	Greaser							2	1									3
26	Lorry Helper		2		1	1		3	1					2				10
27	KKS	2	1	1	1		1	1	1	1	1			1	1			12
28	Field Watcher		4	1	3			2	2		1	2		3	1	2		21
29	Maintenance Labourer	2	3	2	1			3	2						1	1	1	16
30	Lobourer	9	2	9	4	3	1	20	5	4	6	4	1	11	2	1	1	83
Total		**70**	**46**	**41**	**31**	**14**	**6**	**65**	**24**	**9**	**13**	**21**	**6**	**48**	**13**	**12**	**6**	**427**

8.6 Internal Audit Branch

8.6.1 Objectives

- Participating in the system of internal control to minimize risk of department activities.
- To carry out survey and independent appraisal of controls and soundness and adequacy of internal checks adopted in the prevention and detection of errors and frauds.
- To assist the Accounting Officer in ascertaining progress on works and schemes.

8.6.2 Functions

- Ascertain systems of internal checks and controls in operation for prevention of errors and frauds.
- Ascertain reliability of accounting and other records, for preparation of correct financial statements.
- Ascertain the extent to which department's assets are safeguarded from losses of all kinds.
- Ascertain compliance with Establishment Code, financial Regulations, Department circulars and others issued by relevant agencies.
- Ascertain effectiveness of the system of internal controls adopted in preventing and detecting waste and idle capacity.
- Examine accounting procedures and its operations which have any financial implications and verifying the safety, economical and proper use of property and assets of the Dept.
- Appraisal of progress of works, scheme projects and extent to which programs and schedules are on target.
- Carryout special investigations when necessary.
- Convene and coordinate the activities of the Audit and Management Committee of the Dept.
- Issuing audit report including observation and recommendation to the attention of the DGI.
- Performing internal audit activities under given advice from the Management audit.
- Performing closely with the government audit office.

8.6.3 Performance

In relation to the financial year commencing from January 2022, the Internal Audit Branch has submitted twenty three (23) audit reports. Further, paid documents for the financial year 2022 of 83 paying units including offices of Regional Director of Irrigation, Divisional Irrigation Engineers and Projects under the Department were checked. Arrangements were made to convene four (04) Audit and Management Committees, one for each quarter under the Chairmanship of the Director General of Irrigation. A member of the Department of Management Audit of the General Treasury represented these Committees together with the representative of the Auditor General as an Observer.

8.6.4 Staff Position

Table 8-17: Staff position of the branch

No	Designation	Approved Cadre	Present Cadre	Deficit/Excess
01	Chief Internal Auditor	01	01	-
02	Internal Auditor	01	01	-
03	Internal Auditor Engineer	01	-	01
04	Draughtsman	02	01	01
05	Engineer Assistant	02	01	01
06	Management Service office & Related Service	11	08	03
07	K.K.S	01	01	-
	Total	**19**	**13**	**06**

9 Finance Sub Department

The Director General of Irrigation is Functioning as the Accounting Officer of the Irrigation Department. He is responsible to the Parliament through the Chief Accounting Officer in respect of all finance activities of the Department. The Finance Sub Department is headed by the Chief Financial Officer who is supported by twenty one (21) Accountants. Out of them, one (01) post in Region and one (01) post in Head Office were covered under acting arrangements.

9.1.1 Functions

- Preparation of Annual Expenditure, Revenue and Advance Account Estimates
- Annual imprest control
    - Domestic Fund
- Effecting all payments under
    - Capital Expenditure
    - Recurrent Expenditure
- Release of allocations and maintaining control ledgers
- Submission of monthly Summary of Accounts
- Submission of claims to Reimburse funds from donor agencies
- Submission of monthly financial progress reports
- Attending to contract management activities
- Maintaining a close liaison with the General Treasury, Finance Ministry, Line Ministries and other institutions on finance matters.
- Submission of Annual Appropriation account, Public Officers Advance Account, Deposits Account to the Auditor General.
- Asset management, conduct of Annual Board of Surveys and dealing with Disposals, write off applications etc.
- Submission of replies to Audit Queries
- Submission of applications for Refund from Revenue etc.
- Representing the Audit and Management committees.
- All other accounting related activities.

Chief Accountant (Finance) Branch

- Preparation of Annual and monthly imprest applications and submission.
- Preparation of outstanding bills report (TOD/IMP10) and submission.
- Forwarding of losses and write-off applications to the Secretary/IWM.
- Supervision & Managing of liabilities & control cash imprest.

Accounts & Estimate Branch

Collecting data from the head office and regional offices and preparing the annual budget and financial statement.
Controlling and releasing allocations to the head office and regional offices.

In 2022, Rs.802 million has been allocated for recurrent expenses and Rs.40 million for capital expenses to the head office. In addition, Rs.4,169 million has been allocated to regional offices for their Recurrent & Capital expenditures, and Rs.7850 million has been allocated to projects.
Collected monthly summary from regions and prepared a cumulative Main summary, prepared the imprest reconciliation, and supervision of bank reconciliations of the payment units.
Managed the CIGAS and ITMIS systems.
Received allocation of 5,649 million from other heads (Department & Ministries) has been distributed.
Committed expenditure report, other department's committed report and the recurrent expenditure report have been provided for decision-making purposes.

Stores Branch

Stores branch consist of with three stores which are Stationery, Office equipment and Printed Forms. Stationery and Office equipment stores serve the divisions and sub departments in the Head office. By analyzing stock levels periodically, procure Stationery and supply according to the requests made by each division. In the year 2022 budgeted allocation was Rs 9.4 million for Stationery and office requisites. Office equipment procure by the contract and procurement division, were stored in the Office equipment stores. Those are distributed among the divisions and sub departments in the head office and Issue to regions and project offices. Printed form stores full fill the needs of the Head office and all the regions and project offices. Repair and maintenance of office equipment, Rs 2.6 million was allocated to 2022. Repair works, services and purchasing spare parts are main duties under the stores branch. Coordinating Board of surveys of 10 Divisions in head office, 19 DI Office, 56 DIIE officeS, 12 ME office, 11 Project office and reports were submitted. In addition, take FR procedures for loss of inventory items in head office and coordinating such cases occurred in regional and project offices.

Write offs during the year 2022

(A) Losses not written off are accumulated over the past years and actions were taken to expedite to write off the losses. Amounts written off are as follows.

(I) Losses of Stores	**No**	**Amount (Rs)**
Losses below Rs. 25,000/-	03	24,356.25
Losses over Rs. 25,000/-	04	1,498,073.56
Total	07	**1,522,429.81**

(II) Damages vehicle Accidents recovered/written off

	No	**Amount (Rs)**
Losses below Rs. 25,000/-	06	133,689.00
Losses over Rs. 25,000/-	20	4,191,190.67
Total	**26**	**4,324,879.67**

Assets Management Branch

The assets management (Finance) branch is the detail of all non-current asset records to the treasury departments.

Identification of all fixed assets, Analyzing and Reporting of non-current assets, Coordination with Comptroller General's Department, Valuation Department and other relevant government institutions with regard to assets management activities. Fulfill the treasury requirement and financial regulations.

Collecting monthly assets details from regional offices and project offices. Preparation Monthly assets reconciliation and maintaining fixed assets register by using CIGAS accounting system.

Approximately 50,000 fixed assets (with 46 reservoirs) were recorded to the State Accounts Department as at 31/12/2022 value of those assets were 101,792,230,779.00.

Advance & Deposit Branch

To pay distress loan, festival loan, and special advance to the officers who serving in the head office and to prepare property loans to the officers who serving in Irrigation department and release the Attorneys of settled property loans.

To release annual budgetary allocation under public officers Advance B account for the Irrigation Department.

Preparing annual accounts for Advance B and deposits (tender deposit, security deposits, temporary retained deposit, temporary retention for statutory payment, and retention money for construction accounts)

Collecting and paying the refundable miscellaneous deposit through the deposit account, maintain & release of the security deposits, recording & reporting all recoveries to the government by pensioners, settle loan balances of officers who transferred from the other ministries/departments & compare with general treasury printouts, recover loan balances from the officers who deceased, retired, interdicted, vacated their post & suspended from their post.

Advance Account Activities

Total Amount of Loans Granted

Type of loan	No of Loans granted	Amount (Rs)
Distress Loan	746	94,239,593.67
Festival Advances	2761	27,610,000.00
Special Advances	449	1,796,000.00
Bicycle Loans	2	12,000.00
Flood Advances	-	-
Total	**3958**	**123,657,593.67**

Loans/Advances were paid within the Advance Account limit provided for the year 2022.

Table 9-1: Loans/Advances paid during 2022

Property Loans	No of Applications Received	No of Applications Submitted to the bank	Amount Recommended (Rs)
Applications on Property Loans Recommended during the year	12	3	8,405,760.00

Deposit Accounts Activities

Receipts & payments of pension gratuities of retired employees and collections and payments of refundable miscellaneous deposits are made through the deposit accounts and its financial position is as follows.

Table 9-2: Deposit account activities **(Rs)**

Description	Deposit A/C No					
	1/41	**2/189**	**13/36**	**16/8**	**18/10**	**Total**
Opening Balance	1,471,633.04	16,281,207.25	213,373,726.66	303,760,981.35	1,876,064.61	**536,763,612.91**
Receipts	1,858,456.02	6,347,721.90	569,641,305.63	92,754,671.61	1,631,542.37	**672,233,697.53**
Payments	352,462.06	8,856,992.15	590,559,354.77	122,305,336.84	1,423,290.00	**723,497,435.82**
Closing Balance	**2,977,627.00**	**13,771,937.00**	**192,455,677.52**	**274,210,316.12**	**2,084,316.98**	**485,499,874.62**

Payment Branch

To certification, payment and accounting for the vouchers submitted by all sections of the head office.
Accounting for all cash receipts to the head office and estimating the required imprest for the payments of the head office, Galgamuwa Irrigation Training Institute and Ratmalana Mechanical Engineering Office and requesting imprest from the chief financial officer and transferring imprest to those offices for payment.
Monthly accounting reports, all transactions of the branch are reported to the Chief Accountant (Accounts and Estimates) through monthly summary of accounts and the performance of the branch.

Salaries and Miscellaneous Branch

To Payment of Salaries & Wages for 950 approved carder in the irrigation department.
Preparation of Annual Salary Estimates, and other recurrent expenditure Estimates such as Overtime, Traveling, Electricity, Water, Telephone Bills and Rent & rates. Payment of Miscellaneous Expenses such as Overtime, travelling (Local & Foreign), Electricity, Water, Telephone Bills and Rent & rates.
Providing W&OP details and Advance PAYE tax details to relevant institutes.

9.1.2 Imprest released during the year 2022

Table 9-3: Imprest released during the year 2022

Rs. 000

Division	Imprest Released during the Year 2022		
	Capital	**Recurrent**	**Total Released**
Head office	747,000	631,600	1,378,600
Ampara	210,100	262,300	472,400
Anuradhapura	780,850	300,600	1,081,450
Bandarawela	163,300	189,200	352,500
Batticaloa	300,250	121,200	421,450
Colombo	301,050	186,800	487,850
Galle	201,000	266,942	467,942
Hambantota	278,550	245,072	523,622
Kandy	321,350	218,300	539,650
Kurunegala	297,910	205,750	503,660
Monaragala	410,850	153,380	564,230
Polonnaruwa	264,550	147,950	412,500
Puttalam	110,400	79,000	189,400
Trincomalee	289,700	119,850	409,550
Vavuniya	174,900	93,300	268,200
Morana Project	27,700		27,700
Uma Oya	1,962,750		1,962,750
Ellewewa	83,300		83,300
Himbiliyakada	216,800		216,800
Mundeniaru	44,100		44,100
Kudawilachchiya	42,850		42,850
Kumbukkan oya	88,500		88,500
TOTAL	**7,317,760**	**3,221,244**	**10,539,004**

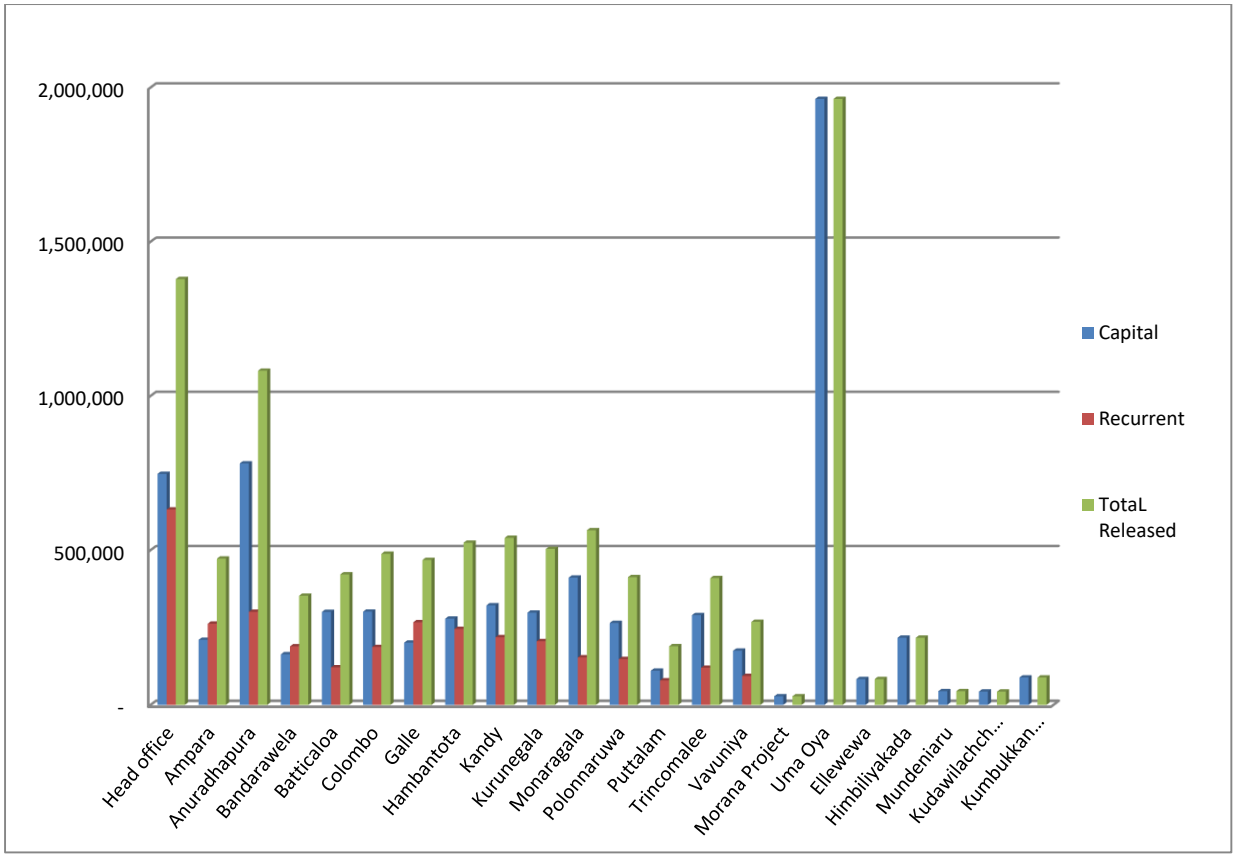


Figure 9-1: Imprest released during the year 2022

9.1.3 Capital Expenditure – Project 2

Table 9-4: Capital Expenditure – Project 2

Projects	**Expenditure – 2022 (Rs. ‘ 000)**	**%**
2-2-0-2001	49,614	3.72
2-2-0-2002	66,786	5.01
2-2-0-2003	23,329	1.75
2-2-0-2102	-	-
2-2-0-2103	43,950	3.30
2-2-0-2104	15,478	1.16
2-2-0-2401	3,945	0.30
2-2-0-2505	8,569	0.64
2-2-0-2507	73,264	5.50
2-2-1-2001	470,148	35.29
2-2-4-2001	478,908	35.95
2-2-5-2105	98,293	7.38
TOTAL	**1,332,284**	**100.00**

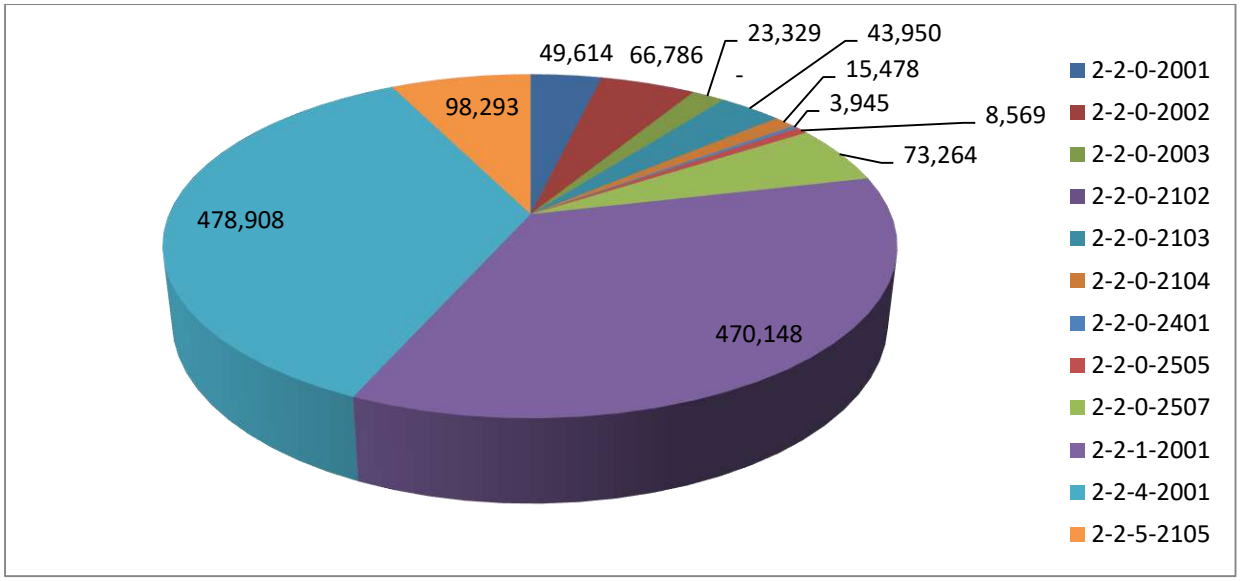


Figure 9-2: Capital expenditure – Project 2

9.1.4 Capital Expenditure – Project 3

Table 9-5: Capital Expenditure – Project 3

Projects	Expenditure – 2022 (Rs. '000)	%
Yan Oya Project	616,282	16.59
Lower Uwa Project	60,000	1.62
Mahagona wewa Project	12,999	0.35
Morana Reservoir	82,483	2.22
Ellawewa Reservoir	93,199	2.51
Kumbukkan Oya	98,894	2.66
Rugam - Kithul Reservoir	49,780	1.34
Polonnaruwa District Irrigation Development	47,297	1.27
Accelerated Irrigation Development Project in Monaragala District	148,993	4.01
Kelani River Bund Protection	95,782	2.58
Development & Improvements of Godigamuwa Tank in Matale District	36,829	0.99
Flood Mitigation project in kelani ganga Mundeniaru Basin, Kaluganga Basin	84,496	2.28
Rehabilitation of Kudawilachchiya Reservoir	56,753	1.53
Rehabilitation of Dematagalla Tank	1,653	0.04
Uma oya Down Stream Development Project	2,006,672	54.03
Himbiliyakada Waththegedara Project	221,610	5.97
TOTAL	**3,713,722**	**100.00**

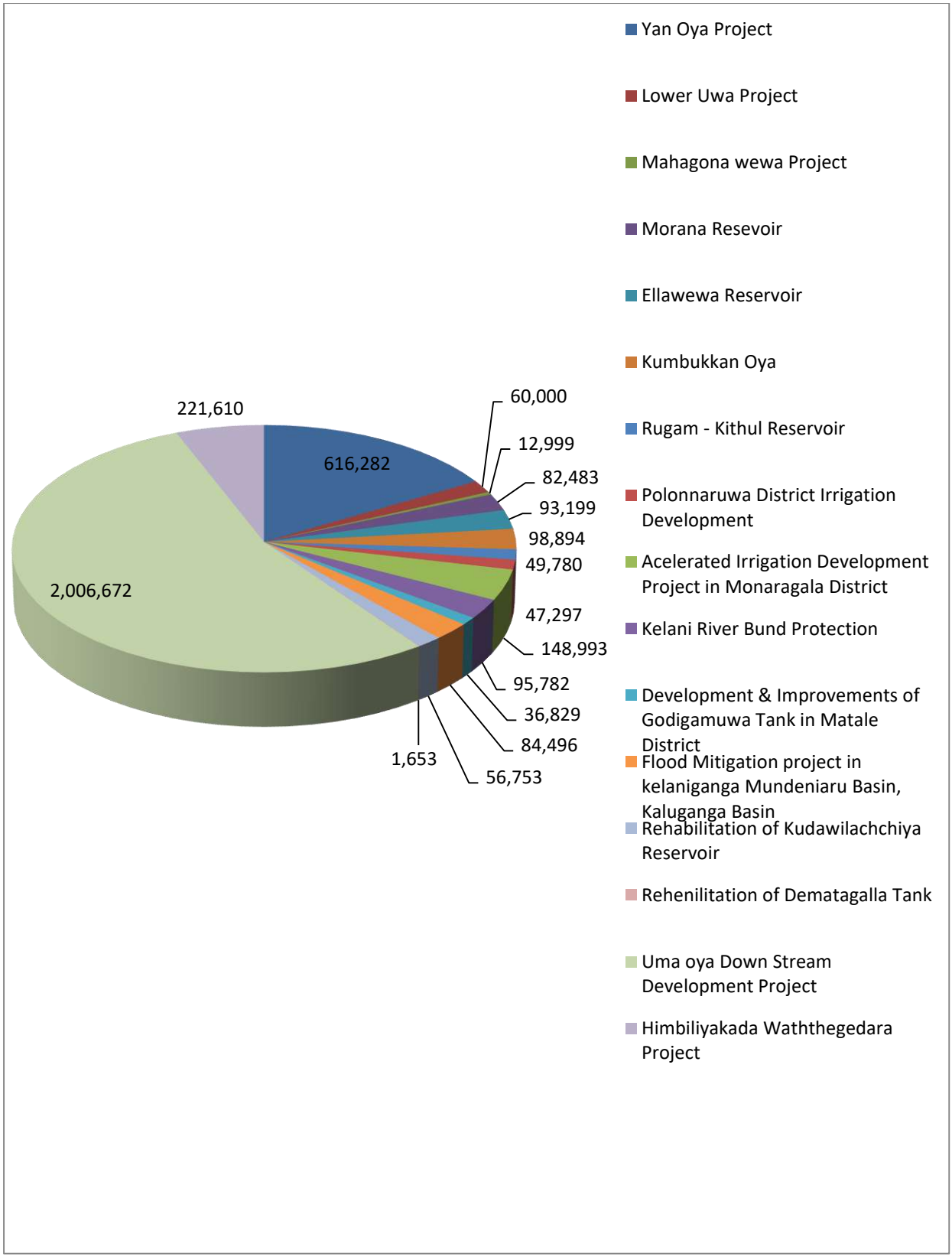


Figure 9-3: Capital Expenditure – Project 3

9.1.5 Capital Expenditure – Project 4

Table 9-6: Capital Expenditure – Project 4

Projects	Expenditure – 2022 (Rs.'000)	%
Wilakandiya Reservoir	39,999	74.84
Augmentation of Mahagalgamuwa Tank	13,450	25.16
TOTAL	**53,449**	**100.00**

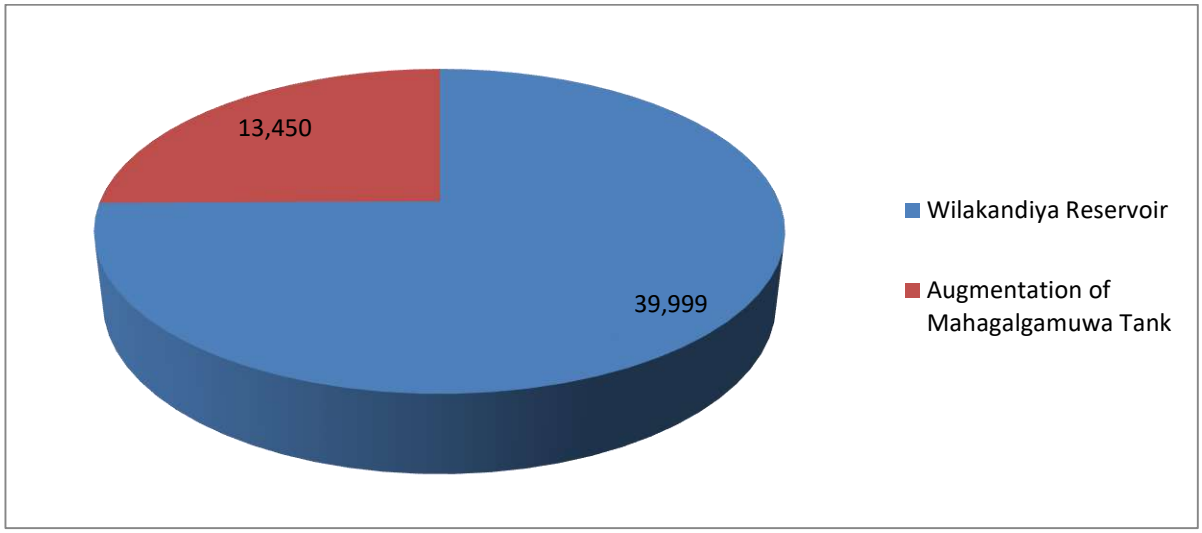


Figure 9-4: Capital Expenditure – Project 4

10 Administration Sub Department

Administration sub department consists of 05 units headed by Additional Director General (Administration), who is supported by Director (Administration) I, Director (Administration) II, 05 numbers of Administrative officers and Translators.

Administrative works related to appointment, transfer, promotion and retirement of officers / workers come under purview of unit 02, 03, 04, 05 and 06 are carried out by the Administration sub department.

10.1 Units of the Administration Sub Department

10.1.1 Unit 02

Following officers' personnel files are updated and maintained in this branch.

- Officers of Sri Lanka Technical Service
- Information & Communication Technology Officers
- Information & Communication Technology Assistant
- Work Supervisors (Non SLTS)
- Technical Aide (Irrigation)
- Technical Aide (Mechanical)

10.1.2 Unit 03

Following officers' personnel files are updated and maintained in this branch.

- Management Service Officers (Supra Grade)
- Management Service Officers (Class –I, II, III)
- Development Officers
- Institutional Development Officers
- Budget Assistant
- Librarian
- Translator
- Assistant Librarian
- Store Keepers
- Typists and Clerks (Departmental)
- Trainee Graduates

10.1.3 Unit 04

Following officers' personnel files are updated and maintained in this branch.

- Laboratory Attendant
- Plan Printer/Helpers
- Greasers
- Cleaner/Helper
- Irrigator
- Laborers 25/2014
- Laboratory Laborers
- Field Watchers
- Laborers
- Field Attendant
- Work Supervisor

10.1.4 Unit 05

Following officers' personnel files are updated and maintained in this branch.

- Drivers
- Operators
- Tractor Operators
- Electricians
- Mechanics
- Welders
- Tinkers
- Painters
- Lathe man
- Machinists
- Blacksmiths
- Maintenance and Operating Labours
- Pump Operators
- Mesons
- Carpenters
- Plumbers
- Instrument Artificer,
- Instrument Repairers
- Hydrological Survey Labours
- Circuit Bungalow Keeper
- Store Aide
- Watch Repairer
- Fitters
- Office Employees
- Air Conditioner Repairer

10.1.5 Unit 06, Postal Division and Record Room

Below functions are carried out by unit 06.

- Preparation of pension and getting approval for language allowances, overtime and holiday pay for all employees of the department.
- Managing agrahara insurance scheme, issuing railway warrants, requesting railway season tickets, and getting approval for telephone allowances for all employees attached to the head office.
- Issuing administration related circulars and maintaining other Departmental Circulars.
- Coordinating Elections related activities for the employees attached to the head office.
- Maintaining Fingerprint machines and related documents at the head office.
- Preparing reports relating to the department cadre details.
- Replying for Audit inquiries relating to the Administration Sub Department.
- Maintaining a record room.
- Managing postal division.