

# **PROGRESS REPORT 2023**

# **Ministry of Fisheries**

Maligawatta, Colombo 10

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#### Vision

Sri Lanka to be the leader of conservation and sustainable utilization of Fisheries and Aquatic Resources in the South Asian Region.

#### **Mission**

Managing the utilization of Fisheries and Aquatic Resources for the benefit of the present and future generation.

#### **Policy Objectives**

- > Sustainable manegement of resources using science based information.
- Compliance with regional and international obligations.
- > Increased marine fisheries production.
- ➤ Increased aquaculture and inland fisheries production.
- Minimized post-harvest losses and increased value addition.
- Increased per capita consumption of fish.
- Increased export earnings.
- Improved opportunites for leisure, employment and enterprises development.
- > Improved socio-economic conditions of the fisher community.

#### **Key Functions**

- > Development of marine, brackish water and inland fisheries industry
- Formulation of policies and programmes
- > Development and sustainable utilization of national aquatic resources
- ➤ Implementation of programmes to the effect that production quality is enhanced to the international standards
- Provision of fish products at an affordable price satisfying the requirements of the consumers
- Facilitation for the exportation of fish products

## **Institutions under the Ministry of Fisheries**

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	<b>Desired objectives -</b> Management, Development and Conservation of Fisheries and Aquatic Resources of Sri Lanka			
Department of Fisheries & Aquatic Resources (DFAR)	<b>Responsibilities</b> - Introduction of the Fisheries and Aquatic Resources Act No2, 1996 and updating the fisheries management activities and legal provisions in compliance to the regional and international conventions and regulations.			
(A)	<b>Desired objectives</b> – To conduct researches on Aquatic resources and development, conservation and management of the same			
National Aquatic Resources Research & Development Agency (NARA)	<b>Responsibilities</b> - NARA, having been established in terms of the National Aquatic Resources Research & Development Agency Act No 54 of 1981 is responsible for aquatic resources and aquaculture, fisheries technology, fish and post-harvest technology and environmental, oceanographic and hydrographic studies			
	<b>Desired objectives -</b> Development and Management of culture – based inland fisheries and aquaculture			
National Aquaculture Development Authority (NAQDA)	<b>Responsibilities-</b> NAQDA having been established in terms of the National Aquaculture Development Authority Act No <b>53</b> of <b>1998</b> , is responsible for supply of fish seed in aquaculture and extension services for inland fisheries and aquaculture, shrimp culture monitoring and aquaculture training faculties			
	<b>Desired objectives</b> -Planning, construction and operation of Fishery harbors and Anchorages			
Ceylon Fishery Harbours Corporation (CFHC)	<b>Responsibilities-</b> CFHC, having been established in terms of the State Industrial Corporations Act No 49 of 1957, is responsible for the operation of 23 fishery harbors and 58 anchorages.			
«EYFISH	<b>Desired objectives</b> – Intervention in fish marketing providing the best advantage to both the supplier and the consumer			
Ceylon Fisheries Corporation (CFC)	<b>Responsibilities-</b> CFC, having been established in terms of the State Industrial Corporations Act No 49 of 1957, is responsible for purchasing and sale of fish and ice, operation of cold room facilities and sale of fishery by-products			
STATE	<b>Desired objectives</b> - Supply of fisheries inputs and gears			
Cey-Nor Foundation	<b>Responsibilities-</b> Cy-Nor, having been registers under the Companies Act No 7 of 2007, is responsible for manufacture and sale of fiberglass boats and supply of fishing nets and gears			

## 01

# Contribution of the Fisheries Sector to the Growth of the National Economy

### **Overall Progress of Fisheries Sector in the Year 2023**

Sri Lankan fisheries sector mainly consists of 517,000 km<sup>2</sup> sea area with abundant fish resources and 489,000 hectares of lagoons, estuaries and reservoirs that show high potential of development. Also, the fishing community, which has made a living by harvesting fishery resources since the past, as well as the human resource that consists of workers who are indirectly engaged in the employments related to the fisheries sector, provides a great support to raise the national economy. Through the efficient and effective use of these human and physical resources, the government incurs huge costs every year to raise the infrastructure which is necessary to bring the fishing industry of Sri Lanka to a higher level and to increase the livelihood of the fishing community.

Although the progress of the fishing industry has been severely affected by the subsequent economic recession that occurred due to the covid epidemic situation and the increase in fuel prices it has been able to harvest an amount of 213,065 MT and an amount of 80,815 MT from the marine fisheries industry and fresh water fisheries industry respectively during the period from January to September 2023. Accordingly, the total production of fish during this period is 292,765 MT.

Fish exports make a unique contribution to the growth of the national economy and foreign reserves, and the total volume of fish products exported during the period from January to September 2023 is 17,890.7 MT. Its value is 72,640.7 Rs.Mn. Also, during the relevant period, it has been possible to get an income of 6,373.7 Rs.Mn through the export of ornamental fish. This can also be mentioned as a record export income over the previous years.

Fish consumption can be considered as the main source of protein to maintain the nutritional level of the population. Per capita fish consumption during the period from January to September 2023 is 32.89 in grams per day. A gradual growth of this value is expected in the future through the steps taken now.

The National Aquaculture Development Authority, with the aim of providing the maximum contribution for increasing local fish production, improving food security, nutritional status, job creation, and strengthening the urban economy, has introduced non-traditional fish farming products such as sea cucumber, seaweeds and sea basses. Such non-traditional Fish farming programs have been implemented throughout the year 2023.

Endangered fish labeo lankae acclimatization and breeding experiments were conducted at Fish Genetic unit at Dambulla and after 2 years experimental breeding practices, Induce breeding technique was succeeded to produce offspring at the first ever breeding of labeo lankae. 32,000 labeo lankae fish were reintroduced to Thumbikulam tank, Habarana located in upper Malwathuoya basin on 22.05.2023 parallel to the World Biodiversity Day. This was a historical event as the first fish reintroduction programme organized to conservation of endangered fish species in Sri Lanka. This

endanger fish reintroduction programme to their original habitat was planned with help of fisheries expert group including universities and government organizations.

Fisheries harbors and anchorages infrastructure development 2023 is a priority project aimed at improving the quality of life of fishermen redusing post harvest loss and producing quality fish production. Accordingly, Rekawa and Mawella anchorages have been completed and Wellamankara fishery harbor is in progress. Development activities of Gandara and myladdi fishery harbors were implemented all throughout the year.

By sustainably managing the lagoon ecosystem, the lagoon development program was implemented throughout the year 2023 with the expectations of not only improving the quality of life of the fishermen around the lagoon but also with the expectation of increasing fish production by enabling natural fish breeding in the lagoon, Under this, more development activities are being carried out in Arugambe, Lankapatuna, Nayaru and Nandikadal lagoons, and development plans are being prepared with a joint approach to the three lagoons of Rakwa, Garaduwa and Koggala in the southern province. It will be able to increase the contribution of those lagoons to generate foreign exchange for the country.

Several projects funded by the Chinese and Japanese governments and the World Food and Agriculture Organization were implemented this year. The economic recession and the fuel shortage caused by the covid pandamic have had an adverse effect on the social and economic conditions of the fishing community. Under these circumstances, the assistance given to them by foreign aid helped to increase the food security and social welfare of the fishermen.

Overall, even though the country is facing a difficult period economically, it is expected that the the Ministry of Fisheries, together with the Department of Fisheries and other institutions under it, will maintain fisheries and aquatic resources in a sustainable manner, and the social and economic level of the fisheries community will reach to an optimal level. It is expected that it will be possible to reach.









The participation of the Honorable Prime Minister in the launch of the first multi-day fishing vessel with cooling systems introduced as a pilot project to safely bring the fish harvested from the sea to the land from Dikovita port on 03.01.2023



Presentation of observations made by Indian scholars for the development of Sri Lanka's fisheries sector to the Minister of Fisheries



The discussion held on 24.01.2023 under the chairmanship of the Minister of Fisheries regarding taking the necessary measures to completely stop the illegal fishing activities carried out by Indian fishermen in the North Sea



The observation visit made by the Minister of Fisheries on 15.03.2023 in order to provide relief to the fishermen who were employed there due to the complete removal of the water level of the lake to start the development work of the Kalmadukulam lake in Kilinochchi on 15.03.2023



Observation by the Minister of Fisheries of the project of production of fishing boats operated by electric cells by the private company Bandaragama Milton Motors.





The development of cooperation between the Maldives and Sri Lanka in fisheries regulation and technical affairs by the Minister of State for Fisheries who participated as a guest on the last day of the "Maldives Marine Expo 2023" Maldives International Exhibition of Vessels and Accessories organized by the Government of Maldives and the Marine Federation of the country from March 15 to 18, 2023. It was stated that a formal program should be set up as soon as possible



It was announced that the discussions held on 10.08.2023 should be held under the chairmanship of the Minister of Fisheries regarding the necessary steps to be taken to stop the killing of fish using dynamite and gunpowder, which is a prohibited method.



The discussion held on 26.07.2023 between the Minister of Fisheries and the Eastern Governor Mr. Sendyal Thondaman regarding the program to be taken to stop illegal fishing in the Eastern Province including Trincomalee



The discussion held on 06.06.2023 by the Minister of Fisheries with the officials of the Aquaculture Development Authority and representatives of the fisheries to provide solutions to the problems of the fishing community around the Chilaw lagoon.



The discussion held by the Minister of Fisheries with the relevant suppliers to supply ice needed for the Peliyagoda fish market at a low price.



The discussion held on 24.05.2023 with a delegation including Sri Lankan Ambassador to the European Union, Mr. Danish Vibe, for the upliftment of Sri Lanka's fishing industry.



Mr. Kang, a leading businessman in South Korea, held a discussion with the Minister of Fisheries regarding the necessary activities to make investments in Sri Lanka's fisheries sector.

#### **Contribution to the Overall Fish Production**

#### 1.1 Increase of the Annual Fish Production

The total fish production of the country is 292,765 Mt from January to September in 2023. Coastal fishery industry has contributed the larger proportion of it. It is 40.0% of fish production from coastal fisheries and 32.7% from deep sea fisheries and 27.2% from inland fisheries & aquaculture.

#### 1.2 Marine Fish Production (Coastal ,Offshore /Deep Sea)

The contribution of the coastal and deep sea sectors towards the total fish production could be increased gradually. During January to September, harvest of 95,870 Mt from Deep Sea fish production and 117,195 Mt from Coastal fish production could be obtained and the total marine fish production was 213,065 Mt.

#### 1.3 Inland & Aquaculture Fish Production

During January to September 2023, the total inland fish & aquaculture production was 80,815 Mt and its contribution was 27.6% to the total fish production. The production through this sector could be increased specially despite under bad weather conditions.

The total fish fingerling production was 54.46 Mn. by 30<sup>th</sup> Sep 2023 and 17.86 Mn. out of the above was produced at the Aquaculture breeding development centres and the balance was produced by community based mini hatcheries, private ponds, cages and pens in reservoirs.

The total shrimp and post larva production was 32.15 Mn. By 30<sup>th</sup> September 2023 and 25.01 Mn. out of the above was produced at the Aquaculture breeding development centres and the private sector has contributed to produce the balance.

Also, the private sector has produced 591 Mn. freshwater prawn post larvae.

National Aquaculture Development Authority has launched Various activities for development related to culture based fisheries, brackish water and coastal aquaculture in various districts with the objective of obtaining maximum contribution towards increasing the nutritional level of the general public, generation of jobs, improving exports and strengthening the rural economy while the possibility of increasing local fish production in the year 2023.

	Statistics for the Total Fish Production								
Fish	Fish Production (Mt.)								
Fis	shing Sub-Sector	2019	2020	2021	2022	2022	2023	Change	Percentage
						(Jan-	(Jan-	in	share (%)
						Sep)	Sep)	2023-	
								2022	
								(%)	
1	Off shore//Deep Sea	172,910	144,370	153,415	131,170	96,080	95,500	(0.58)	32.7
2	Coasta	242,580	182,560	178,260	149,440	109,520	116,900	6.74	40.0
	Total Marine	415,490	326,930	331,675	280,610	205,600	212,420	3.32	72.7
3	Inland Capture	73,230	84,310	80,720	94,860	67,410	64,355	(4.53)	22.0
4	Inland Culture	10,710	10,140	9,105	7,680	5,900	6,800	15.25	2.3
5	Shrimp Farms	6,400	7,360	14,410	14,080	11,730	8,545	(27.15)	2.9
	Total Inland	90,340	101,810	104,235	116,620	85,040	79,700	(6.28)	27.3
	Total Production	505,830	428,740	435,910	397,230	290,640	292,120	0.51	100.0

Source: Statistics Unit of MFADRD

	Monthly Fish Production Statistics ( 2023 Jan – Sep)							
Fish Pro	Fish Production by Sectors (Metric tons)							
	Marin	e Fish Producti	on		Inland Fish	Production		Total Catch
	Off Shore	Coastal and Lagoon	Total Marine	Capture	Aq. Culture	Shrimp Farms	Total Inland	
2023	95,520	116,900	212,420	64,355	6,800	8,545	79,700	292,120
Jan	11,220	14,170	25,390	6,710	475	860	8,045	33,435
Feb	11,610	14,670	26,280	6,530	495	910	7,935	34,215
March	12,490	14,710	27,200	6,460	460	1,070	7,990	35,190
Apr	11,900	12,990	24,890	5,880	390	1,180	7,450	32,340
May	8,360	13,520	21,880	6,330	410	1,450	8,190	30,070
June	8,320	10,780	19,100	6,565	550	935	8,050	21,150
July	10,220	10,730	20,950	7,280	860	990	9,130	30,080
Aug	11,510	12,060	23,570	9,600	2,160	550	12,310	35,880
Sep	9,890	13,270	23,160	9,000	1,000	600	10,600	33,760

Source: Statistics Unit of MFARD



#### 1.4. Increasing Per Capita Fish Consumption

Increasing fish consumption paves the way for the public to minimize nutritional deficiencies, eradicate malnourishment and improve good health.

The per capita fish consumption during the period January to September 2023 was 32.89 grams per day. The local, marine and inland fish production and imported fish products contributed to increase the per capita fish consumption.

#### 1.5. Import of Fish and Fishery Products

Sprats, Dry fish, Maldive fish, canned fish and feed fish are the main commodities of imported fish and fishery products which are paramount in fulfilling the gap between the domestic fish consumption requirement and local fish production. Dried fish and sprats are the major contributors the total imports. Part of the quantity of imported fish is value added and re-exported and the rest is used for local consumption. This is important to reduce the gap between the local fish production and consumptions. From January to September 2023, a quantity of 34,412.5 Mt has been imported as fish and fishery products amounting to a value of 16,952.2 Rs.Mn.

Table 1.5.1 Value of Imported Fish and Fishery Products (Rs.Mn)

Item	2020	2021	2022	2021	2022	2023	Change %	Change %	Percentage
				(Jan-	(Jan-	(Jan -	2023/2021	2023/2022	to Total
				Sep)	Sep)	Sep)			
Dried	6,353	4,871	3,470.0	3,845.3	2,742.9	2,546.6	-33.7	-7.15	15.0
Fish									
Dried	10,927	9,119	9,955.5	6,766.4	7,227.1	6,166.3	-8.6	-14.6	36.4
Sprats									
Maldiv	1,924	1,453	925.7	1,065.8	686.2	675.1	-36.6	-1.6	3.9
e Fish									
Caned	10,764	4,891	2,671.9	3,509.7	2,156.1	3,139.6	-10.5	45.6	18.5
Fish									
Food	4,659	3,401	2,107.9	2,582.0	1,632.8	1,930.8	-25.2	18.2	11.4
Fish									
Live	175	253	430.0	167.2	309.7	270.8	61.9	-12.5	1.6
Fish									
Other	703	1,091	2,103.2	872.1	1,581.3	2,222.8	154.8	40.56	13.1
Total	35,504	25,080	21,664.2	18,808.3	16,336.3	16,952.2	-9.8	3.7	100.0

#### 1.6. Fish Exports

The fisheries sector provides a priority contribution to the growth of national economy through the exports of fish and fishery products, ornamental fish and sea weed. Necessary measures have been taken to improve fish exports sector by providing proper guidance and assistance to the stakeholders in order to export high-quality and healthy fish products adhering to the regulations of the imported countries.



The discussion held on 21.08.2023 by the Ministry of Fisheries with former Minister Vinayagamurthi Muralidaran and migrant exporters regarding the possibility of involving Tamil Diaspora exporters in the export of aquatic resources.

In the discussion held on 11.08.2023, the Minister of Fisheries announced the discussion held with the representatives of the Aquaculture Development Association and the officials of the relevant Ministry regarding the fact that the Ministry of Fisheries will provide the necessary government support to boost the shrimp industry, which provides a large export income.



The Minister of Fisheries announced that steps have been taken to promote sea cucumber cultivation as a main way of bringing foreign exchange to the country on 08.01.2023 at the ceremony of presenting the rights to sea cucumber growers in Kiranchi area of Kilinochchi.



As it is the duty and responsibility of the exporters to ensure that the money legally received by the country from the export of fish, the discussion held between the Minister of Fisheries and the fish exporters on 20.03.2023 to provide the necessary

Table 1.6.1: Export quantity and value of fish and fish products

Item	Export Quantity (Mt.		Export Va	alue (Rs Mn.)
	2022	2023 Jan-Sep	2022	2023 Jan-Sep
Live fish	na	na	7,143.0	6,373.7
Prawns	5,486.4	2,942.6	13,174.5	7,349.0
Lobster	113.9	79.6	1,060.5	923.8
crabs	1,849.5	1,171.8	7,796.7	5,320.6
Sea Cucumber	417.6	308.2	3,806.0	3,592.6
Other Mollusca	2,087.9	2,243.8	3,881.9	4,326.0
Shark	79.2	73.8	922.4	1,076.5
Shark Maws	7.1	6.2	155.5	225.0
Oysters & shells	271.1	187.4	228.2	164.3
Processed fish	14,959.0	10,565.3	57,528.1	42,303.5
Other	458.3	307.1	1,546.1	985.6
Grand Total	25,729.9	17,890.7	97,242.8	72,640.7





The discussion held on 23.09.2023 between the High Commissioner of India Dr. Satyanjal Pandey and the Minister of Fisheries for obtaining support for the development of the fisheries sector, including the provision of necessary advice and technical support to the sectors of raising sea cucumbers, crabs, shrimps and ornamental fish



#### 1.7. Ornamental Fish Exports

Introduction of new ornamental fish species, breeding activities, prevention of spreading diseases, conducting trainings & awareness programmes on provision of quality foods, production of new fish species with the assistance of NARA, technical development, diagnosing fish diseases, extending assistance to obtain loans by the farmers are the strategies adopted by National Aquaculture Development Authority (NAQDA) in order to encourage ornamental fish exports.

Rs.6373.7 Mn could be earned through Ornamental fish exports during the period of January to September 2023.





Among the ways of earning foreign exchange, the ornamental fish industry and the aquatic plant industry are considered prominent, and the Minister of Fisheries will conduct an observation tour in Homagama and Padukka areas of Kelani Valley on 30.04.2023 to find out about the infrastructure needed by those industries.

### **Progress of the Project Implemented Under the Ministry of Fisheries**

The primary responsibility of the Social Development Division is to plan, manage and implement all development programs aimed at fisheries development by this Ministry, and to prepare policies that affect the overall fisheries development program. Accordingly, the role of the development division is coordination and implementation of all the programs required to achieve the objectives that are in accordance with the SriLankan national policy, such as increasing marine fisheries production in Sri Lanka's national policy,, increasing aquaculture and fresh water fisheries production, reducing post-harvest damage and increasing value addition, increasing per capita fish consumption, increasing export income, recreational activities, increasing opportunities for employment and commercial development, and improving socio-economic activities of fishing communities.

### A. Lagoon Development and Conservation

The lagoon development and conservation project was started in the year 2018 with the aim of increasing fish and aquatic life production with the main strategy of increasing aquatic products through the conservation and development of the aquatic environment related to lagoons and inland reservoirs.

The direct objectives of this project are increasing the natural fish population in the lagoons by cleaning the lagoons and deepening the canals to make the water exchange in the lagoons smooth, development of infrastructure aimed at reducing post-harvest wastage, development of aquaculture, prevention of unauthorized catches and landfills, demarcation of lagoon boundaries which helps in conservation, livelihood development, conservation of mangroves, removal of illegal gear and strengthen lagoon management and increasing fish production through stocking of fish and fry. It is also expected to achieve the goals of creating new job opportunities and expanding the tourism industry through this project. In the year 2023, the Department of Fisheries and Aquatic Resources, the National Aquaculture Development Authority, the National Aquatic Resources Research and Development Agency, the Ceylon Fishery Port Legalized Corporation and other government agencies are going to implement the following projects under this program by allocating an amount of Rs.226.45 million for this project.

- 1. Preparation of Master Plans for 11 lagoons Preparation of specifications, estimates and bills of quantity for the removal of silt in Arugambe Lagoon.
- 2. Desilting of Arugambe lagoon.
- 3. Conducting basic environmental studies of Nayaru lagoon and cleaning the lagoon
- 4. Carrying out basic environmental studies of Lanka Patuna lagoon and cleaning up the lagoon
- 5. Cleaning of Nandikadal lagoon
- 6. Demarcation of selected lagoons
- 7. Increasing fish production in selected lagoons
- 8. Establishment of Lagoon Management Committees.

- For the year 2023, the Department of Fisheries has been allocated a provision of Rs. 0.751 M for the implementation of the sub-project of planting boundary posts in selected lagoons,, out of which. So far, 283 boundary posts have been planted in Chilaw lagoon at a cost of Rs.0.311 million, and another 141 posts are to be planted. The Irrigation Department has been notified to provide a revised estimate related to the side wall preparation project of the Lamasuriya Canal.
- Under the sub-programme of setting up lagoon resource management committees and conducting awareness programs, an amount of Rs. 775,750.00 has been released to conduct awareness programs for the fisheries community and district office officials of Puttalam, Chilaw, Nandikadal, and Lankapatuna lagoons, and 04 awareness programs for fishermen in Puttalam lagoon have already been conducted by the The Department of Fisheries. Management committees are in the process of being gazetted in relation to Koggala and Garaduva lagoons.
- Under the sub-programme of conservation and management of lagoons (Puttalam, Chilaw, Koggala, Garaduwa), the Department of Fisheries has done the work of submitting the management development plan of Chilaw Lagoon to the Honorable Minister for gazetting.
- The National Aquatic Resources Research and Development Agency is conducting a preliminary study to increase the capacity of penaeus monodon shrimp in selected lagoons in Sri Lanka using non-native SPF post-larvae. For this project Rs. 3.08 million has been allocated and so far imprest amount of Rs 0.5Mn has been given to that institution. This project is being carried out based on the Kalpitiya lagoon and the tender for the nets required for the construction of cages has been awarded. Necessary procurement process is being carried out to buy chemicals as well.
- The National Aquatic Resources Research and Development Agency implemented a postlarvae production project to improve shrimp capacity in lagoons using brooders in natural lagoon environments. For this project, a financial provision amount of Rs. 2.79 million has been released to the institution. The fry were produced in 2 selected private fish hatcheries. An amount of 3.054 million prawns produced in the first phase have been placed in Batticaloa, Rekawa and Koggala lagoons, and studies are being carried out on the growth and survival of the larvae placed in the lagoon. In the future, fish fry will be placed in the lagoons of Arugambe and Chilaw.





- Under the preparation of master plans for lagoons, master plans have been prepared for Puttalam, Halawatha, Mundalam, Jaffna, Thondamanaru, Uppuaru, Rekava, Koggala, Panama and Arugambe lagoons which have been selected as clusters A, B, C and D.
- Development plans are being prepared with a joint approach for the 03 lagoons of Rakeva, Koggala and Garaduwa in the southern province as a pilot program with the aim of attracting investments towards lagoons from private and non-governmental organizations and fields such as the tourism sector based on the lagoon environment, industries such as cultivation-based aquaculture, as well as short-term income-generating industries such as tourism and environmental conservation,
- Cleaning of Nayaru, Nandikadal, Arugambe and Lankapatuna lagoons has been planned and bills of quantities and estimates are being prepared for Arugambe lagoon. The activities related to obtaining environmental approvals for other lagoons are in progress.
- Rs. 102.42 million has been released to the National Aquaculture Development Authority to settle the outstanding bills related to the infrastructure development and livelihood development programs implemented in the year 2022.

#### **B. Development and Construction of Fishery Harbours**

1. Construction of Gandara Fishery Harbour



#### 1. Description of the Project:

The following items are constructed under this project

- **♣** Construction of the breakwater (257 meters)
- ♣ Construction of the platform (175.63, 221.12 and 127 meters)
- **♣** Construction of Shore facilities
  - > Fish Auction Hall
  - ➤ Net mending hall
  - > Canteens
  - > Sanitary facilities
  - > Shops

Staff quarters

> Office accommodation facilities for Fisheries Inspectorate and Coast Guard,

Pumping stations

> Garbage collection point

Weigh bridge

> Fuel dispenser and water tanks

2. Commencement of the project: 07.12.2020

3. Completion of the project: 06.12.2023

4. Extension of the project period: 09.06.2023

5. Project Value: Rs.9, 360 million6. Financial progress of the project

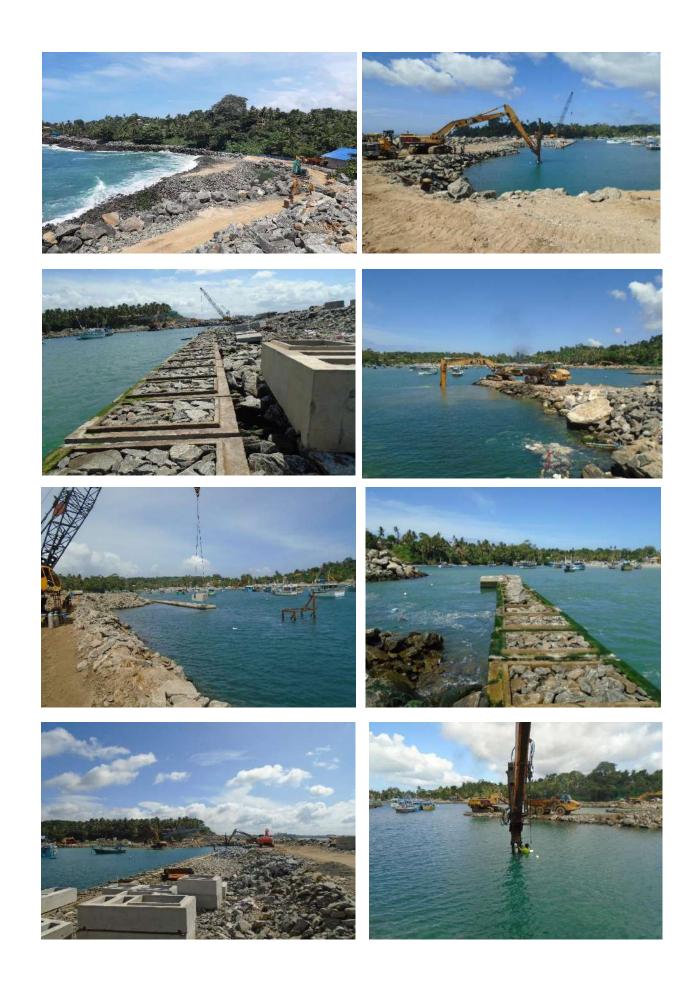
Year	Financial	Cost Rs.M	Note
	provisions Rs.M		
2020	408	202.48	
2021	1,710	1,598.18	
2022	1,599.44	1,043.74	
2023	2,405	1,267.13	the value of bills in hand
			Rs.497.40M as at 13.09.2023

#### 7. Physical Progress:

In the year 2023, it was decided to continue only the marine construction of the Gandara Fishery Harbour construction project and it was decided to suspend the building construction activities. Accordingly, the project program was revised.

The expected physical progress of Gandara Fishery Harbour construction project on 13.09.2023 was 79% and its physical progress is 71%.

Project name and items	Expected progress %	Progress made (%)
Gandhara Fishery Harbour	79	71
Priliminery activities	100	100
Construction of the breakwater	95	94
Dredging of the basin	87	83
Preparation of pre- cast blocks	100	100
Platform construction	72	56
Land acquisition and resettlement	72	70



#### 2. Mailiddy Fishery Harbour

The State II Project for the development of Mailiddy fishery harbour was started on 29.10.2021, and the initial estimated cost is Rs.664.1 million.

It was proposed to implement the project in several phases in the areas of rehabilitation of the breakwater of this fishery harbour, jetty and navigation light, dredging of the harbor basin including the access canal, auction hall for provision of beach facilities, establishment and operation of ice storage, boat and engine renewal workshop, net mending hall, renovation of petrol station with storage tank, community hall, administrative office, quarters for administrative officers, public facilities and beach-related infrastructure.

It was decided to continue only the marine construction of the Myliddy fishery harbour development project and to temporarily stop the building construction work.

The financial progress of this project is 66.5 million rupees and the value of bills in hand is 95.155 million rupees and the physical progress is 84%. This project is scheduled to end in 2023.









#### 3. Development of Negombo lagoon

#### 1. Description of the Project:

This project is implemented under 3 phases. There, the number of operational packages under phase I is 7. The total amount for the 7 packages in Phase I of the project is Rs. 1,000.

#### Those are,

1. Package I - Lagoon Development in Lellama area

There, the dredging of the basin under package I at Lellama work site was started on 14.05.2016 and the project was completed on 14.02.2017.

#### 2. Package II - Development of lagoon in the area near the court complex

Under Package II, the dredging of the lagoon near the court was started on 01.08.2017 and the project was completed on 14.02.2017.

#### 3. Package III - Lagoon development in Queen's Road area

Dredging of the lagoon near Rajina Road under Package III was started on 20.07.2018, and currently the physical progress of the lagoon is 90%.

#### a. Reasons for the delay

During the implementation of the 3rd phase of the project, the lagoon silt was removed and stored in the project area until it dried. A case has been filed under Forest Conservation .b.p. Section 20 (1) mentioning that the silt stored in the project area causes damages to the mangrove environment.

The removal of the silt and the project are to be resumed after the Negombo Police provides proper security.

#### 4. Package IV - Development of lagoons in Lellama area

The dredging of the basin under package IV of Lellama work site was started on 26.03.2019 and at present the physical progress of the lagoon is 100%.

#### 5. Package V - Construction of jetty in Lellama area

Under Package V, A jetty of 15 meter wide 265 meter long, will be constructed. Currently, the bid document is being prepared for inviting bids.

#### 6. Package VI - Construction of jetty in the vicinity of Rajina road area

The jetty is being constructed under Package VI. Currently, the bid document is being prepared for inviting bids.

#### 7. Package VII - Construction of jetty near court complex

Under Package VII, Jetty of 15 meters wide and 145 meters long will be constructed. So far, the plans have been finalized and the bid document is being prepared for inviting bids. Currently, procurement activities are to be carried out to select a contractor.

#### 4. Feasibility Study, Planning and study of environmental impacts

- ➤ Development of Ambalangoda Fishery Harbour
  Feasibility studies and planning have been completed. The procurement to select a consulting company for the environmental impact study has been completed
- ➤ Development of Hikkaduwa Fishery harbour Feasibility studies and planning have been completed. The proposal to select a consulting company for environmental impact study has been completed.
- Development of Valachchena Fishery Harbour Feasibility studies and planning have been completed. Environmental impact studies are underway.
- Development of Dodandoowa Fishery Harbour Feasibility study and planning have been completed. Environmental impact studies are underway.

#### C. Description of completed and delivered projects

#### 1. Construction of Wellamankara Fishery Harbour

Wellamankara Fishery Harbour Construction Project Value is Rs. 2, 498, million and the works of this Harbour consisting of the following items were completed and handed over to the Ceylon fishery Harbours Corporation for operational activities.

- **♣** Breakwater (567 meters)
- **♣** Construction of Groyne (125 m)
- **♣** Construction of platform (350 meters)
- ♣ Shore facilities: Fish Auction Hall, Net mending hall, Canteen, sanitary facilities, Auction Hall, Shops, Staff quarters, Office Accommodation Facilities and Drinking Water Tanks for Fishery Inspector and Coast Guard.





#### 2. Construction of Kalamatiya Fishery harbour

The construction of Kalamatiya Fishery Harbour was started on 14.07.2014, and currently the physical progress of this land project is 100%. The value of this project is Rs 1,280.79 million.

The constructions which were not included in the initial contract, yet essential for the operational activities, have been completed, the Fishery Harbour has been handed over to the statutory corporation for operational activities.

#### 3. Construction of Mawella anchorage

The construction project of Mawella anchorage was started on 20.10.2020, and the project value of this project is Rs.379.8 million. The construction works of this anchorage consisting of a breakwater of 260m long was completed and has been handed over to the Department of Fisheries and Aquatic Resources for its operations.





(The physical progress of the breakwater construction of the Mawella anchorage construction project is 100%).

#### 4. Construction of Rekawa anchorage

The project for the construction of Rekawa anchorage was started on 20.10.2020, and the revised project value of this project is Rs.490 million. The construction works of this anchorage consisting of a groyne and a 300m long breakwater were completed and have been handed over to the Department of Fisheries and Aquatic Resources for operations.





(Construction of maintenance anchorage is 100% of the physical progress of the construction project).





The follow-up discussion on whether the instructions given to complete all the existing deficiencies in the fishing ports and fishing piers of Kirinda, Hambantota, Kuduwella, Gandara, Galle, Mirissa, Beruwala, Maradana, Paruliya, Dodandua and Panadura in the Southern Province have been properly implemented.





On 02.02.2023, engage in an observation tour to investigate the development activities of Pareliya Fishing Port.



# Information with regard to projects implemented under Foreign Aids

The project propo	The project proposals implemented under the grants from the Japanese				
government					
	Amount USD 3,000,00	Present Progress  The approval of the National Procurement Department (NPD) has been received by letter dated 04.07.2023 under No. NPD/AGC/PP/FIS/2023/05.  Equipment will be provided in 2 phases.  - Under the first phase, the following equipment will be provided related to the promotion of fishing activities and chilling and freezing purposes.  - Ice Making Machine  - Digital Platform Scale  - Fishing Net, Refrigerator  - Cargo Truck  - Prefabricated Refrigerator/ Freezer			
		The proposal which is related to this project, is to be submitted to the Japan Cabinet in September 2023.  Under the second phase, the following equipment will be provided for the safety of the fishermen.  - Patrol Boat  - Rigid Hull Inflatable Boat (RIB)  - Lighted Buoy  - HF Radio Transceiver  The proposal which is related to this project is to be submitted to the Japan Cabinet in February 2024.  (The Japanese fiscal year runs from April to March, so it is a project for that fiscal year.)			

	Project proposals implemented under the grants from the Chinese government					
	Project Proposal	Amount	Present Progress			
		Rs. Mn				
2.	Provision of fishing nets for small-scale fishermen in the northern and eastern provinces of Sri Lanka.  Provision of grants for the development of housing facilities for low-income fishermen living in the North and East Provinces.	750	The approval of National Planning Department (NPD) vide letter dated 08.08.2023 under No. NPD/PP/AGC/FIS/2023/07, Under No. ER/CN/HEF/G/01, the approval of the Department of			
3.	Provision of rice for selected small scale fishermen in the North and East Provinces of Sri Lanka.	555.4	External Resources (ERD) vide letter dated 06.09.2023 has also been received.			

Project proposals implemented under the assistance of the Government of Thailand				
Project Proposal	Amount	Present Progress		
	Rs. Mn			
Training and expertise in marine ornamental fish	54	National Planning Department has		
breeding		given approval on 13.09.2023		

Grant Projects from Food and Ag	Grant Projects from Food and Agriculture Organization (FAO)					
Project	Cost (USD) Mn	Current Status				
01. Addressing urgent food and nutrition security needs of marginal fishers in the most vulnerable districts of Sri Lanka	1.018	NPD approval on 17.02.2023. Completed cash transfers to 5058 marginal fishers who own non-motorized traditional boats from Colombo, Kalutara, Gampaha, Galle, Matara, Hambantota, Puttalam and Mannar districts				
02. Smart and sustainable aquaculture through effective biosecurity and digital technology	1.2	NPD approval on 27.10.2022. Established Technical Working Groups (TWG) on Bio Security (BS) and Big Data (BD)				
03. Technical assistance in sea cucumber aquaculture and processing, restocking and management of depleted wild resources	200,000	NPD approval on 20.10.2022.				
04. Ensuring food security through minimizing post-harvest losses in fishery industry	7.8	Modified multi-day vessel has gone two successful trials.				

#### **Other Activities Being Implemented**

#### **Expansion of local canned fish industry**

Both locally produced and imported canned fish are used to meet the local canned fish requirement. According to data from the five years before the year 2020, an average of about Rs. 10,000 million in foreign currency has been spent annually on the import of canned fish. This ministry has been taking various steps over the past few years to increase the production of tinned fish in this country, taking into account the enormous amount of foreign exchange that is spent and the amount of employment generated in the country through the promotion of the local canned fish industry.

As one of the main measures of this, in cases where it is difficult to procure raw materials locally for the canned fish industry in Sri Lanka, permission has been given to import the mackerel fish required for those raw materials under special tax concessions.

Before the year 2019, the number of canned fish factories registered under the Fisheries Department of this Ministry was about 6 and it has now grown up to 16. Also, these canned fish factories registered under the Fisheries Department of this Ministry have produced about 2500 MT (about 6 million cans) only within the first quarter of this year and this amount is close to the whole amount of canned fish production in 2019. Additionally, the growth in domestic canned fish production has reduced the amount of foreign currency used to import canned fish, resulting in a decrease in both the volume of canned fish imported (3431 MT in 2022) and the amount of foreign currency used to import it. It has been possible to reduce the foreign currency spent on imported canned fish up to Rs. 2671.9 Mn.





The signing of an agreement with Tess Private Company to start a canned fish factory using surplus fish stock from the fish stock landed at Oluwil Fishing Port took place at the Ministry on 07.02.2023.

# Compensation for the damage caused to the fisheries industry due to the accident involving the ship Xpress Pearl.

The marine ecosystem on Sri Lanka's west coast was badly harmed as a result of the Xpress Pearl's fire and capsizes on May 21, 2021, which released plastic, oil, chemicals, and other materials from the ship's containers into the sea environment. The government took action to impose a no-fishing zone with immediate effect as a result of this environmental damage in order to ensure the safety of fishermen, fishing equipment, and boats in the region from Kalutara to Negombo. As a result, compensation was arranged from the relevant shipping company for the fishermen who suffered a loss of income.

In this context, the Government of Sri Lanka has made requests for compensation from the relevant shipping company, and the marine insurance company has given an amount of Rs3,068 Mn as interim compensation.

Arrangements have been made to provide these compensations to 15,032 fishermen who are directly engaged in the fisheries industry and 4,888 persons engaged in fishing related jobs. An expert committee appointed by the Marine Environment Protection Authority (MEPA) is dealing with the environmental damage caused to the fishing industry by this ship accident, and the Ministry and the National Aquatic Resources Research and Development Agency (NARA) provided support for the work.









The fourth phase of compensation for the fishermen affected by the damage of Express Pearly was held on 11.05.2023 at the Ministry Auditorium.

### 02

# Department Of Fisheries and Aquatic Resources (DFAR)

#### Vision

Optimal contribution to the national economy by strengthening socio-economic status of the fisher community while maintaining the sustainability in fisheries and aquatic resources.

#### Mission

Management of fisheries and aquatic resources by adopting new technological methods in accordance with the national and international maritime laws and conventions to make an effective contribution towards the Sri Lankan economy through the sustainable development in the fisheries industry.

#### **Purpose**

- Management, regularization, conservation and sustainable development in fishing activities in compliance with local and international maritime laws and conventions.
- Encouraging local and foreign investment in the fisheries sector.
- Introduction of new technology for exploiting fishery resources in local and international seas.
- Improving socio-economic status of the fisher community.
- Ensuring the quality and hygiene of exporting fish products in keeping with the international standards.
- Minimizing post-harvest losses and improving the quality of local fish products.
- Ensuring that fishing operations are conducted in accordance with the international statutes and regional conventions
- Execution of port services in accordance with the Implementation of Port State Measures
- Regulations
- Monitoring the operations and ensuring the safety of fishing vessels at High Seas
- To provide optimum service to fishermen and the other clients via online using information technology
- Enabling to obtain data related to the fisheries sector quickly and accurately via online using information technology.

#### **Main Functions**

- Formulation, imposition, updating and implementation of Fisheries Operations Regulations.
- Formulation, imposition, updating and implementation of Fisheries Management Regulations.
- Formulation, imposition, updating and implementation of Aquaculture Management Regulations.
- Registration of fishing vessels and issuance of fishing operation licences.
- Issue of permits for the export of live fish.
- Issue of fish landing permits for foreign fishing vessels.
- Improving awareness on fisheries management among the fisher families.
- Coordination of institutional credit facilities for obtaining capital goods.
- Registration, regulation and supervision of boat building companies.
- Registration, regulation and supervision of fisheries input suppliers.
- Providing guidance to bring the fisheries cooperative societies to an efficient level.
- Coordination and monitoring of regional fisheries organizations established under the National Fisheries Federation.
- Collection of data related to the fisheries industry.
- Repatriation of fishermen and fishing boats taken into custody by foreign countries.
- Bringing the fishermen and fishing boats stranded at sea back to Sri Lanka.
- Quality inspection of export fish.
- Registration of fish processing establishments and issue of health certificates for fish export.
- Upgrading the standard of local fish sale outlets.
- Installation of VMS devices on multiday fishing boats engaged in High Seas fishing operations.
- Providing radio communication facilities between the fishing vessels and land.
- Obtaining reports on fishing boats which are involved in border crossings
- Providing daily weather reports and weather advisories on a daily basis.
- Making aware of fishing boats based on the information given by VMS.
- Making the respective institutions aware of illegal foreign fishing vessels and fishermen.
- Taking action to provide licenses and call signs for communication purposes of fishing boats.
- Substantiation of information for insurance in case of accidents encountered by fishermen and fishing crafts.
- Taking action to save fishing boats adrift in international maritime boundaries.
- Conducting training programmes for the vocational education of the members of fisher families.
- Fisheries social security through the implementation of fishermen's insurance and pension schemes.
- Implementation of lagoon development programmes and infrastructure development in fishery villages.
- Implementation of alternative income generating programmes for fisher women.

#### 01. Progress of Development Programmes 2023

#### 1.0 Development Division

Prime responsibility of the Fisheries Development Division is to increase fish production through development and regulation of fisheries sector by means of efficient and introducing new environment friendly technological methods in order to achieve a greater contribution towards the National Economy of Sri Lanka and to take necessary steps to upgrade socio economic status of the fisher folks.

#### 1.1. Main function of the Fisheries Development Division

.Registration, regulation and supervision of boat building yards.

- Granting approvals for boat designs.
- Registration, regulation and supervision of fishing gear suppliers.
- Introduction and promotion of new technological methods to the fisheries industry.
- Providing technical evaluation reports/recommendations to the Environmental Impact Assessments (EIA) pertaining to the construction projects in coastal areas.
- Development of infrastructure facilities in fisheries sector.
- Implementation of alternative income generating projects
- Implementation of fisheries subsidy schemes.
- Implementation of fisheries loan schemes.
- Ensuring social security of fishermen through the implementation of fisheries pension schemes.
- Dealing with compensation of fishermen.
- Implementation of the Diyawara Kekulu children's saving progrmme
- Taking necessary action to streamline the development and conservation of lagoon eco system.
- Implementation of lagoon development programmes
- Formulation and implementation of the annual action plan of the Department of Fisheries and Aquatic Resources.
- Reviewing progress by coordinating all district offices.
- Resolving special fisheries disputes

#### 1.2 Ensuring the safety of fishermen

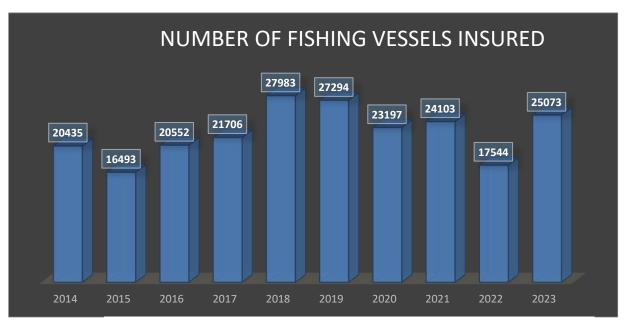
**Table 01:** Progress of the activities related to ensuring the safety of fishermen

Activity	Progress up to 31.08.2023
Total number of fishing vessels insured	2,5073
Total number of fishermen insured	44,977
Number of persons contributing to the Fisheries Pension	69,049
Scheme	
Issue of seaworthiness certificates	21,934
Registration of fishing vessels	63
Registration of fishing gear suppliers	17

#### 1.2.1 Insurance of fishing vessels

Insurance of fishing vessels is mandatory for mechanized fishing vessels as per the Fishing Vessels Registration Regulations, 1980.

Accordingly, the progress of insuring fishing vessels from 2014 to August 31, 2023 is comparatively shown below.

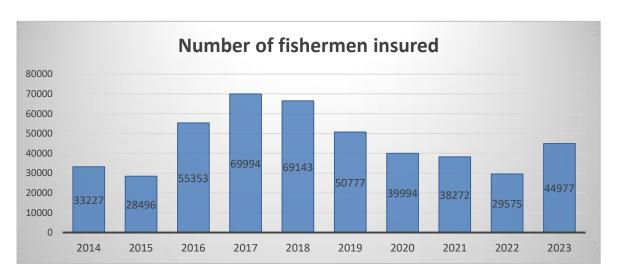


Graph 01: Number of fishing vessels insured

#### 1.2.2 Insurance of fishermen

According to the Departure and Arrival of Mechanized Fishing Boats Regulations No. 01 of 2023, it is mandatory to insure the fishermen engaged in fishing activities by means of multi-day fishing boats. Previously, it was not a law, but at present, the same has been made mandatory for the multiday fishing boats.

Accordingly, the progress of insuring fishermen from 2014 to August 31, 2023 is comparatively shown below.



Graph 02: Number of fishermen insured

#### 1.2.3 Introduction of new Fisheries Insurance scheme.

According to the criteria of the International Labour Organization, the fishing occupation has been named as one of the most challenging, dangerous and risk prone occupation. Considering the fisheries industry in the country, the risk prone nature of the Marine fisheries sector is higher than that of the freshwater fisheries sector. According to the statistics of the Ministry of Fisheries, the number of fishermen in Sri Lanka is 315,720, of which 225,070 are employed in the marine fisheries sector and out the said number, about 87% are coastal fishermen, and 34,300 are engaged in offshore and deep-sea fishing by means multi-day fishing vessels. The number of fisher families in the country is that of 266,640 and the number of people who are directly dependent on the fisheries industry is about 1,123,000. The number of people engaged in indirect work related to this sector and its associated dependents are estimated to be around 03 million. Thus, about 18% of the total population of Sri Lanka earns their livelihood from the fisheries industry.

The total number of active fishermen in Sri Lanka is 315,720. Out of them, the people who have contributed to the insurance scheme that has been in operation so far, is approximately 1.73% out of the number of active fishermen. Since the necessity of implementing a new insurance scheme with a more effective and affordable installment for the fishermen, having identified shortcomings and issues of the existing insurance scheme, has arisen, the Department of Fisheries and Aquatic Resources jointly with the Sri Lanka Insurance Corporation has introduced the "Dheevara Rakuma" personal accidental insurance scheme.

Under the "Dheewara Rekuma" personal accidental insurance scheme operated by the Sri Lankan Insurance Corporation, the amount of compensation received on behalf of the fishermen in case of his death is granted to his dependents in such a way that is a half of the total amount top the wife and the other half among the minor children of the family. 03 options have been introduced by the insurance corporation.

Table 02: Particulars of the "Dheewara Rekuma" Insurance Cover

Particulars of the Cover	Insured Amount (Rs.)		
01. Personal accidental insurance	Option 01	Option 02	Option 03
Accidental insurance	1,200,000	1,500,000	2,000,000
Permanent total disability	1,200,000	1,500,000	2,000,000
Permanent partial disability	600,000	750,000	1,000,000
02. Disappearances			
In case of disappearance of the fisherman due to an	At a rate of	At a rate of	At a rate of
accident while engaged in fishing activities, the	Rs.7,500	Rs.7,500	Rs.7,500 per
payment of benefits will be started after completion	per month	per month	month for up
of 05 months since the date of disappearance.	for up to 12	for up to 12	to 12 months
	months	months	
In case of disappearance for more than one year, the	1,200,000	1,500,000	2,000,000
balance will be paid after deducting the above			
compensation from the insured amount			
03. Hospitalization Allowance	Rs.500/=	Rs.500/=	Rs.500/= per
Claims for a maximum of 14 days per year is paid for	per day	per day	day

a fisher family hospitalization in the event of	(maximum	(maximum	(maximum
hospitalization for accidents or illness.	14 days)	14 days)	14 days)
Fisherman and spouse - 18 to 65 years			
Unmarried, unemployed children up to 21 years.			
04. Allowance of Educational Expenses	1,000	1,000	1,000
Education expenses of school going children will be			
paid for a year at the rate of Rs.1000 per month for a			
maximum of two children.			
05. Funeral Benefit (Payable on natural deaths only.)	200,000	200,000	200,000
06. Air ticket cover	40,000	40,000	40,000
In case of drifting/arrest by another state due to			
fishing operations			



Figure 01: Introducing Dheewara Rekuma new insurance policy

#### 1.2.4 Compensation for Natural hazards.

This program is jointly implemented by the Department of Fisheries and Aquatic Resources and the Ministry of Finance under the direct financial allocation of the government. No any fee is charged from the beneficiary for this purpose and under this, a compensation of rupees one million is granted to the dependents of a fisherman who dies due to natural hazards encountered while engaging in fishing activities. In the year 2023, compensations have been granted to 3 beneficiary families. In this case, it should be confirmed that the death has occurred due to a natural disaster. For that purpose, it is mandatory to provide a disaster incident report.

#### 1.2.5 Diyawara Diriya Loan Scheme

Diyawara Diriya Low Interest Loan Scheme has been launched by the Department of Fisheries and Aquatic Resources in collaboration with the Bank of Ceylon in order to upgrade the standard of fishing crafts and to provide relief for the fishermen with the objective of developing the fisheries industry and taking more qualitative fish harvest through the introduction of new technology. Under this, loans are granted to each beneficiary subject to the maximum amount of Rs.15 million and the interest rate is as follows.

- 5% interest will be charged from the borrower if the amount of loan is less than Rs.2 million
- 7% interest will be charged from the borrower if the amount of loan is more than Rs.2 million
- In this loan scheme, 4 percent interest subsidy is granted for each fisherman by the Government.
- When granting these loans, priority is given for undertakings such as improvement to the boat yards, construction of fishing boats over 55ft in length, advancement of new technology (RSW, CSW), installation of long lines and winch machines etc.
- Loans have been granted for 261 beneficiaries totaling a sum of Rs.783569388.00 under the first phase of Diyawara Diriya and over Rs.1000 million has been granted for 755 beneficiaries under the second phase of this loan scheme.

4 % interest premiums hereof are credited to the Bank of Ceylon by the Department of Fisheries and Aquatic Resources and this suit will follow until 2027.

#### 1.2.6 Diyawara Kekulu Children's Savings Account

According to the criteria of the International Labour Organization, the fishing occupation has been named as one of the most challenging, dangerous and risky prone occupation. The economy of the vast majority of fishermen's families is entirely dependent on the income earned by the fisherman who is the head of the family. The nutrition, education and health security of those fisher families are completely dependent on the individual income of the fisherman. Due to the accidents encountered by the fisherman, the economy of the family collapses completely, and the education of the children of the fisher families is broken down at large. Accordingly, attention of the Department has been focused towards ensuring the social security of fisher families, attracting young people to the fisheries industry, and the promotion of thrift and investment/saving habits of fishermen for the future of their families. Accordingly, upon the request of the Ministry of Fisheries, the Bank of Ceylon has taken necessary steps to start a special 'Dheewara Kekulu' children's savings account for fishermen's children in order to provide wider cover for them.



Figure 02: Diyawara Kekulu Children's Savings Account

Various programs implemented by the Development Division of the Department of Fisheries and Aquatic Resources in the year 2023 and its progress

1.3 The programme of providing kerosene under the Chinese's aides 2023 for the small fishing vessels with outboard engine (OFRP) and traditional mechanized boats (MTRB) powered using kerosene as fuel, 2023. [OFRP (Out board fiber Reinforced Plastic Boat), MTRB (Mechanized Traditional Boat)]

The programme of granting of fuel free of charge, that was provided by the People's Republic of China in aid was commenced under the leadership of Mr. Douglas Devananda, Minister of Fisheries, State Minister of Fisheries Mr. Piyal Nishantha de Silva and the Ambassador of Sri Lanka to the People's Republic of China, at Panadura Fishery Harbour on 23.05.2023.

The Petroleum Corporation Ltd decided to provide kerosene for the consumption of small-scale fishermen in place of the 3.79 million liters of diesel offered by the Republic of China and it was observed that it was possible to release 4.32 million liters of kerosene according to the prevailing price at that time. The release of this fuel will be done in two phases and in the first phase, 75 liters and in the second phase, the amount of fuel that can be given is being calculated and will be notified in the future. Thus, it is expected that the relief will be given to about 27,000 OFRP and MTRB vessels throughout the Island, powered by kerosene as fuel and which are registered in the Department of Fisheries and Aquatic Resources. Accordingly, approval has already been given to grant this relief to 25564 vessels identified as active fishing vessels in 15 fisheries districts of Colombo, Kalutara, Galle, Matara, Tangalle, Kalmunai, Batticaloa, Trincomalee, Kilinochchi, Jaffna, Mullaitivu, Mannar, Puttalam, Chilaw and Negombo. The release of the fuel is done by 96 fuel stations and the release of 1,813,575 liters of kerosene for 24181 OFRP and MTRB vessels at 75 liters per vessel has now been completed.

Necessary arrangements are currently being taken for the implementation of the second phase.



















**Figure 03:** The occasion of the programme to provide fuel, free of charge to the vessels, granted by the Republic of China as an aid to Sri Lanka was held on 23.05.2023 at Panadura Fishery Harbour

## 1.4. The programme of providing monthly living allowance to the NTRB vessel owners by the Food and Agriculture Organization (FAO).

Among the project proposals presented to the World Food and Agriculture Organization by the Department of Fisheries and Aquatic Resources for the purpose of providing relief to low-income fishermen, it was agreed to sponsor the program to provide a living allowance to the NTRB boat owners for a period of three months. Accordingly, the implementation of the project was carried out in two main phases and under which living allowance was granted to a total of 11,794 beneficiaries.

Under the first phase of this, 6947 non-mechanical traditional boat owners in the districts of Batticaloa, Jaffna, Mullaitivu, Kilinochchi, Kalmunai and Trincomalee were given living allowance allowance at the rate of 42\$ each for a period of 03 months.

Under the second phase of this, 4847 non-mechanical traditional boat owners in the districts of Halawata, Colombo, Mannar, Puttalam, Galle, Kalutara, Matara, Negombo and Tangalle were given living allowance for a period of 03 months at the rate of Rs. 47\$ each.

# 1.5 Infrastructure Development of the Fishery Industry - (Minimizing the impact caused to the fishermen due to the mining sand for the development of the Western Terminal of the Colombo Port Expansion Project)

The Sri Lanka Port Authority and the Western Terminal Development Company have allocated an amount of rupees one hundred and forty million to the Ministry of Fisheries to develop the infrastructure of the fisheries industry in order to minimize the impact of the Colombo Port Western Terminal expansion project on the concerned fishermen. Currently, rupees 70 million has been given to the Ministry of Fisheries and the money is to be used for the development of fisheries infrastructure in Gampaha and Colombo districts which will be affected by this project. Suitable projects for that are currently being identified.

### 1.6 Progress of the measures taken to regulate the impact on the fisheries sector due to the fire incident of the cargo ship New X Press Pearl on 21<sup>st</sup>, May.

On 20 May 2021, Singapore-flagged cargo ship "MV X-PRESS PEARL with 1,486 containers onboard carrying dangerous cargo; 25 tons of nitric acid, other chemicals, some cosmetics, 278 metric tons of bunker oil and 50 metric tons of marine gas oil from Hazira Port, India caught fire while anchored 9.5 km off the coast of Sri Lanka. Plastic pellets, oil and chemical spills caused a significant economic damage to the fisheries industry on the west coast of the country. Coastal pollution from Kalutara to Negombo has been observed with oil, chemicals and burnt particles especially plastic pellets. Plastic debris, oil and chemical spills have caused a high negative impact on coastal fisheries and marine ecosystems. Experts said that this accident will have a serious impact on the entire ecosystem such as coral reefs, sea grass, fish habitats, etc. The impact of the MV Xpress Pearl vessel is therefore wide-ranging and likely to have short-term, medium-term and long-term impacts. The Ministry of Fisheries, Department of Fisheries and Aquatic Resources and other agencies under the purview of the Ministry of Fisheries have taken various measures to mitigate the adverse impacts on Sri Lanka's environmental, social and economic and health sectors and protect fishermen and seafood consumers. Accordingly, fishing activities were banned in the fisheries districts of Negombo, Kalutara and Colombo to reduce the immediate adverse effects on the fisheries sector. The temporary fishing ban was imposed on 21.05.2021 and it was implemented until 05.06.2022 based on the scientific recommendations of the NARA Institute.

Recognizing the potential for pollutant spillover based on numerical modeling studies as a precautionary measure against environmental pollution from pollutants and debris from the MV Xpress Pearl, NARA recommended that a 457 square kilometer offshore area of 65 kilometers of coastline be prohibited. Fishing was declared to be prohibited at the Mahaoya River estuary in the North and the Panadura in the South. Due to the long-standing fish ban in the area, a significant number of direct fishermen and indirect beneficiaries of the fisheries industry have been affected by this incident, and 23 categories of fishermen and 24 other professions related to the fisheries industry have been identified as the affected parties.

Table 03: Details of the directly affected fishermen

District	Number of Fisheries	Number of active	Affected fishing vessels
	Inspector's Divisions	fishermen	
	directly affected		
Negombo	13	11,081	IMUL 40
			IDAY 60
			OFRP 2015
			NTRB 1484
			MTRB 02
Colombo	10	3,250	IMUL 11
			IDAY 14
			OFRP 446
			NTRB 294
			MTRB 01
Kalutara	02	701	OFRP 47
			NTRB 33

Multiday Fishing Boats (IMUL), 1Day Fishing Boats (1 Day) 1 Day Fishing Boats with outboard engine (OFRP), Traditional Fishing Boats (NTRB), Mechanized (MTRB)

### 1.6.1 Amount of compensation approved by the Ministry of Fisheries

Table 04: Amount of compensation granted direct fishermen

District	Approv	Amount of compensation granted (Rupees)				
	ed Numbe	1 <sup>st</sup> phase	2 <sup>nd</sup> phase	3 <sup>rd</sup> phase	4 <sup>th</sup> phase	
	r of					
	benefici					
	aries					
Negombo	11,081	206,197,500.00	242,825,000.00	551,220,000.00	700,000,000.00	
Colombo	3,250	58,942,500.00	74,720,500.00	205,233,125.00	277,053,608.00	
Kalutara	701	14,170,000.00	16,312,500.00	37,285,000.00	70,000,000.00	
For the allowance of Rs. 5000		67,000,000.00				
For netting gear		2,067,515.00			4,474,410.00	

Compensa		1,154,930.00		
tion for				
damage to				
the				
aquacultur				
e				
Total	348,377,515.00	335,012,930.00	793,738,125.00	1,051,528,018.00

Table 05: Amount of compensation granted to the indirect fishermen

District	Number of	Number of	claimants for	Amount compensation
	approved	whom	compensation	(Rs)
	fishermen	information	has been	
		completed		
Negombo	3,866		3,072	588,601,048.00
Colombo	851		709	143,548,608.00
Kalutara	171		153	35,131,600.00
	4,888		3,934	767,281,256.00

Table 06: Detailed information on the amount of compensation given to indirect fishermen

	Indirect category	Approved Compensat	Gampa	ha District	Colon	nbo District	Kalutara District	
		ion Rates	Total no of inde mnifi ers	Total amount of Compensation for Gampaha District - Rs	No of inde mni fiers	Approved amount of Compensation for Colombo District (Rs)	No of inde mni fiers	Approved amount of Compensation for Kalutara District
1	Dry Fish Labours	98,000.00	808	79,184,000.00	-	-		
2	Dry fish sellers using vehicles	280,000.00	1	280,000.00	-	-	1	280,000.00
3	Dry Fish Vendor	238,000.00	136	32,368,000.00	1	238,000.00	3	714,000.00
4	Engine repairers	76,328.00	1	76,328.00	1	76,328.00		
5	Fiberglass repairers	196,000.00	21	4,116,000.00	3	588,000.00		
6	Fish cutting Personals	113,680.00	39	4,433,520.00	121	13,755,280.00	20	2,273,600.00
7	Fish vendors (wayside small shop)	280,000.00	330	92,400,000.00	61	17,080,000.00	30	8,400,000.00
8	Fishing net & Accessories sellers	140,000.00	3	420,000.00	1	140,000.00		

9	Helpers for	98,000.00	29	2,842,000.00	-	-		
	processing							
	Shrimps							
10	Helpers in Lellama	22,400.00	78	1,747,200.00	-	-		
11	Ice distributers (small scale)	91,000.00	5	455,000.00	4	364,000.00	2	182,000.00
12	Landing site helpers	98,000.00	403	39,494,000.00	45	4,410,000.00	1	98,000.00
13	Lobster collectors	280,000.00	7	1,960,000.00	3	840,000.00	4	1,120,000.00
14	Mobile fish sellers (selling by using bicycles and motorcycles)	224,000.00	46	10,304,000.00	416	93,184,000.00	58	12,992,000.00
15	Net menders	49,000.00	5	245,000.00	5	245,000.00		
16	Other	98,000.00	5	490,000.00	2	196,000.00		
17	Small scale dried-fish producers	280,000.00	462	129,360,000.00	1	280,000.00	22	6,160,000.00
18	Retail sellers (Shops) / Small Scale Fish Sellers	280,000.00	540	151,200,000.00	24	6,720,000.00	5	1,400,000.00
19	Small scale fish stock sellers	280,000.00	86	24,080,000.00	15	4,200,000.00		
20	Small scale food suppliers	168,000.00	37	6,216,000.00	2	336,000.00		
21	Small scale fuel suppliers	224,000.00	4	896,000.00	4	896,000.00		
22	Wholesalers	336,000.00	7	2,352,000.00	-	-	2	672,000.00
23	Jadi Fish Producers	-	-	-	-	-	5	840,000.00
			3,053	584,919,048.00	709	143,548,608.00	153	35,131,600.00

### 1.7 Issuance of Fishermen's Identity Cards.

Issue of fishing ID cards and skipper licenses to confirm the identity of the fisher community engaged in the fisheries industry is being carried out by the Development Division of the Department of Fisheries and Aquatic Resources.

The particulars about the fisheries ID cards and skipper licenses issued by the Development Division from January 01, 2023 to August 31, 2023 are as follows.

Total number of Fisheries ID cards issued -1,300

Total number of skipper Licenses issued -1,003

### 1.8 Progress of the project of placing of fish aggregation structures making use of scrap vehicles to increase the fish stock in coastal waters.

Under the guidance and advice of the Minister of Fisheries and the State Minister, a large number of decommissioned multi-day fishing boats and structures of bus bodies were sunk in the ocean without harming the environment in order to protect the coastal marine ecosystem and marine biodiversity for the future generations and used as an artificial substrates, in order to protect the coastal marine ecosystem and the marine biodiversity for future generations, with the aim of establishing fish breeding sites on artificial substrates on the coastal seabed in 2021, 2022 and 2023. The following photos show how the second phase of the project is being launched in Jaffna district in the year 2023.









**Figure 04.** Photos showing how decommissioned buses are being prepared to be sunk in ocean under the second phase of the project in Jaffna district in the year 2023.

### **1.9** Lagoon Development (Development Division)

### 1.9.1 Gazetting of the Puttalam Lagoon in Puttalam District.

Puttalam Lagoon has been declared as a Fisheries Management Area under Gazette No. 1665/17 of 04<sup>th</sup> August,2020. According to the provisions of the Fisheries and Aquatic Resources (Amendment) Act No. 35 of 2013, the Legal Section is undertaking the necessary activities to re-gazette the same with GPS readings so as to ensure the conservation, development and management and safety of the ecosystem in the lagoon.

# 1.9.2 Held the Fisheries Management Coordinating Committee meeting of the Puttalam Lagoon.

Accordingly, the Puttalam Co-ordination Committee meeting was held on 17.01.2023 at the Auditorium of the District Secretariat to enforce and maintain the conservation, management, protection and control of the Puttalam Lagoon Fisheries Management Area in terms of Section 31(a) of the Fisheries and Aquatic Resources Act No. 2 of 1996 as amended by Act No. 35 of 2013.





**Figure 05.** Photographs showing the Fisheries Management and Coordinating Committee meeting of Puttalam lagoon being held.

### 1.9.3 Conducted the fishermen awareness program in Puttalam district.

2023 In the year 2023, fishermen awareness programs on the future activities of the Lagoon Management Committees of Puttalam Lagoon in Puttalam District and raising the livelihood of the fishermen were held on July 31 and August 09, 10, 2023.





Figure 06: The photograph showing the manner in which the fishermen awareness programme is being conducted.

## 1.9.4 Necessary legal work is being done to gazette the fisheries development and management plan of Chilaw, Koggala and Garaduva lagoons.

Koggala Lagoon in Galle District, Garaduva Lagoon in Matara District and Puttalam Lagoon in Puttalam District are to be gazetted with the aim of sustainably maintaining the ecological conditions of the lagoon ecosystem thereby securing the livelihood of the people around the lagoon.

### 1.9.5 Fixation of demarcation posts at Chilaw Lagoon in Mahawewa District.

283 boundary posts have been fixed at Chilaw lagoon in Mahawewa district during the period from 30.03.2023 to 18.04.2023.

### 1.9.6 Conservation and development of the Chilaw lagoon.

For the purpose of conservation and development of Chilaw lagoon, monitoring of the sediment ponds of shrimp farms in the vicinity of Chilaw lagoon was carried out jointly with the Ministry of Fisheries and the National Aquatic Resources Research and Development Agency and the National Aquaculture Development Authority.

### 2.0 Management Division

### 2.1 Sustainable management of fisheries and aquatic resources

The sustainable management and regularization of marine and aquatic resources is a primary task of the Department of Fisheries and Aquatic Resources, and towards this end, measures are being taken to issue management licenses for fishing vessels and fishing operations and to eliminate illegal, unreported and unregulated fishing operations. Pertaining to the year 2023, licenses have been granted for various fishing operations and vessels as mentioned below.

Table 07: Progress of each activity as at 31.08.2023 in the year 2023

Ser.No	Activity	Expected	Progress as
		Target	at 1.08.2023
1	Registration of fishing vessels (New)	2,000	3,880
2	Issue of High Seas fishing	1,020	1,312
	operations licenses		
3	Issue of skipper licenses	500	859
4	Issue of licenses for the import of ornamental fish	25	24
5	Issue of licenses for the export of ornamental fish	30	31
6	Issue of licenses for the reexport of ornamental fish	15	15
7	Issue of licenses for the export of spiny lobster	80	40
8	Keeping in possession, transport of spiny lobster	10	14
9	Issue of permits for taking Chanks.	50	0
10	Issue of licences for transport	80	47
	and keeping Chanks in possession		
11	Issue of permits for the export of Chanks	40	23

12	Issue of licences for taking, collecting, keeping in possession and transport of beche de-mer	200	166
13	Issue of licences for the import, export and reexport of beche de-mer	150	121
14	Issue of permits for collecting transporting of seashells for the manufacture of fancy goods	20	21
15	Issuance of Permits for the export of Corals grown on artificial substrates	4	0
16	Registration for import of fish and fishery products	200	124
17	Registration for export of fish and fishery products	150	126
18	Registration for reexport of fish and fishery products	13	7
19	Allotment, approval and issue of registration	IMUL-100	59
	numbers for new vessels	OFRP-1000	721
		MTRB-250	178
		NTRB-500	400
		NBSB0	0
20	Issue of permits for the export of murex (Operculum of <i>Chicoreusramosus</i> )	15	11
21	Issue of permits for keeping in possession, sale, exhibition and transport of murex (Operculum of <i>Chicoreusramosus</i> ).	15	15
22	Issue of permits for keeping in possession, sale, exhibition and transport of murex flesh (Operculum of Chicoreusramosus).	30	13
23	Export permits of <i>Chicoreusramosus flesh</i>	15	8
24	Issue of permits for the Transport, keeping in possession and exhibition of dead sea shells.	20	16
25	Issue of permits for the transport and export of sea weeds	8	17
26	Issue of permits for the import of sea weeds		0
27	Issue of permits for the reexport of sea weeds		0
28	Issue of log books	1,000	1,136

### 3.0 Quality Control Division

### 3.1 Taking action to maintain the relevant standards in fish export by the Quality Control Division

There is a potential to earn significant foreign exchange through fish export and it is important to maintain the standards of fish products. The Quality Control Division of the Department of Fisheries and Aquatic Resources issues licenses and inspects the institutions related to maintaining the relevant standards in fish export and its progress is as follows.

Accordingly, the total number of institutions registered in the Quality Control Division is 85, of which, 44 institutions are high quality institutions that have been granted permission to export fishery products to the countries belonging to the European Commission.

Activity		Annual Target	Progress as at 31.08	Percent age %
Ensuring the hygiene	and quality of fish products	in the local market		
01.Conducting harbou		18	1	-
02.Inspection of fish a fish markets	auction centers and public	5	-	-
03.Awareness program	nmes (fishers/traders)	10	10	100%
Ensuring the hygiene	and quality of exporting fis	hery products		
01.Obtaining official s	samples - Institutes	400	54	40%
02. Awareness prog Officers / relevant Fie	grams (Quality Control ld Officers)	10	2	20%
03.Awareness progr Officers of establishments/fishers	ams (Aqua-culturists / fish processing)	10	-	-
04.Inspection of hys	giene and Sanitation at	36	3	8%
05.Inspection of hyg and good practices of	iene, sanitary conditions fishing vessels.	100	9	9%
06. Inspection fish processing establishments for exports	Number of inspections of establishments expected to be conducted	167	36	22%
	Number of inspections of packaging and lobster collecting centers expected to be conducted	15	4	26%
07.Inspection of labor	atories	6	2	33%
08. Inspection of aquaculture farms an aquaculture farms.	hatcheries, freshwater d brackish water, marine	40	1	2.5%

09. Laboratory testing residues	g of aquaculture chemical	Determined annually in accordance with the plan recommended by the European Commission and the United Kingdom.	0	-
Activity		Annual target	Progress as at 31.08	Percent age %
10. Organoleptic landing/processing	examination during	70	6	8.6%
	statistical data programs nal fisheries management	Depending on the occasion	0	-
research results are no	on for cases where the of up to standard according ag program for export fish	Depending if results exceed standard values of parameters	5	-
13. Notification by i the unsuitability of fis	mporting countries about h products.	Depending on the frequency of notifications about unsuitability by the respective countries	9	-
14. Fish processing centres for export.			0	-
	Updating the registration of fishery products processing establishments.	75	43	57%
15. Issue of fish catch	certificates.	25000	13,250	53%
16.Issue of health ce European countries)	rtificates for exports (for	25000	16,905	67%
17. 16. Issue of healt (for non-European cou	h certificates for exports untries)	15000	7,775	51.8%
18. Inspection of fish stock being imported for re-export. (BIA)		Depending on the requests and approvals for importation of fish for re-export are made from time to time	1	-
embassies established notifications made by order to maintain th	from the Sri Lankan d abroad or through the the importing countries in e necessary coordination Commission and the of other countries.	Depending on the requests to be made	96	-

### 4.0 Investigation and Training Division

### 4.1 Building good relationship between fisher community, fisheries officer and the other stakeholders.

The main objective of the Investigation Division is to implement the Fisheries and Aquatic Resources Act No. 02 of 1996 and the regulations made thereunder to ensure the sustainable existence of the fishery resources in Sri Lanka without illegal, unreported and unregulated fishing activities. The aim is to sustainably develop the fisheries industry to make contribution effectively to the national economy of Sri Lanka through resource management in accordance with international marine laws and conventions using new technology.

The role of the Training Division is to educate and train the fisher community, fisheries officers who regulate the fisheries industry and the other stakeholders related to the fisheries industry in order to protect the fishery resources for future generations.

Table 09: Investigation and Training Division - Progress from January to August 2023

	Activities	Target	Progress
01	Supervision of investigations and legal	Unable to give	4
	proceedings against district level raids and	ascertained targets	
	illegal fishing activities.		
02	Formulation of the method of imposing		24
	administrative penalties by the Department of		
	Fisheries and Aquatic Resources according to		
	the requests from all district offices and the		
	relevant process for the imposition of		
	administrative penalties.		
03	To sue against confirmed illegal activities		5
04	Conducting investigations for violations		161
	detected by the vessel monitoring system.		
05	Conducting special raids	9	7
06	Inspections and investigations related to		
	fishing vessels, fishing gear, products and		
	establishments supplying fishing baits.		
	1.Number of inspections	40	20
	2.Number of prosecutions	Unable to give	0
		ascertained targets	
07	Inspection and investigation of all district	3	5
	offices, fisheries inspector's offices, radio		
	communication centers and harbour offices		
08	Making awareness about fisheries law and	3	4
	legal fishing inputs for the relevant		
	stakeholders.	_	
09	Organizing training and capacity development	8	25
	programmes for the officers of the department.		

10	Organization of fisher's awareness at district	10	7
	level.		
11	Directing the officers of the Department to the	4	12
	training programs/post-graduate/diploma		
	courses held at external institutions.		
12	Acting as an external supervisor for imparting	0	1
	industrial sector training to the students of		
	universities/technical colleges.		
13	Feedback and analysis related to the training	7	2
	programs.		

### 5. Information Technology Division

### 5.1. Objective

The objective of this division is to prepare online application for the proper maintenance of the information technology network of the Department which is the essential and modern infrastructure facility needed to fulfill the objectives of the Department, operate the online application system of the Department as well as to handle the relevant hardware, which includes data analysis and reporting and trainings associated with information technology.

### 5.2 Main activities

- Implementation of departmental network software in departmental clients.
- Maintenance and content management of official website of the department.
- Officer training on departmental network and basic information technology.
- Supervise and support e-teams to improve the use of the e-log system.
- Document Management System (DMS) monitoring, support and training.
- Introduction and implementation of dynamic reporting system.
- Enhance the use of the R language for data analysis.
- Maintenance of hard system for the department.
- Implementation of staff based monitoring syste
- Maintenance of departmental computer hardware and software.
- Introducing open operating system and application.
- Training of 20 officers on R statistics.
  - Introduction of new vessel monitoring system and completion of its installation on about 4150 multi-day vessels. To arrange for constant monitoring of it from the head office and fisheries offices.

### 5.3 Implementation of the departmental services through online application.



Figure 07: Official Website

The departmental online application is developed to convert more than 30 manual processes of the department into a digital process. It includes registration of fishermen, registration of boats, collection of scientific data, etc. and many other processes. The departmental online application has two main components, i.e. Android application and Java application are the main components. The Java application is currently running on the departmental server system and can be accessed using http://msdfar.com. The Android application is already installed on more than 500 smart devices and has undergone several version updates. 42000 fishermen, 99 vessels (including old data), more than 7000 boats, 7300 skippers have already been registered and more than 7000 operations licences have been issued using the departmental online application. For the year 2022, more than 107000 online departures were made through the online departure system. This process has been continued from the year 2021. The MSDFAR system won the gold medal as the best online application in the year 2022 from the competition of selecting public institutions that use online application.

# 5.4 Maintenance and content management of official website of the department. <a href="https://www.fisheriesdept.gov.lk">www.fisheriesdept.gov.lk</a>.



Figure 08: official website

The IT Division is responsible for the maintenance and content management of the official website of the department. The departmental website is updated daily and includes details of departmental proceedings. Each section of the department has its own page where the activities for which the section is responsible are included. Contact details of officers are available on the website and are updated regularly. The list of all registered exporters, importers, yards and suppliers is maintained in the website and is updated. Officers can access all the systems of the department through the website access. The department's website also won the Gold Medal for Best Sinhala Website and the Merit Award for Best Government Website in the 2020 Best Web Competition.

### 5.5 Evaluation of the use of online software by departmental officers.

A scoring system was implemented as an evaluation for the officers who performed their duties using the Departmental Networked Software (MSDFAR) system, and the latest type of tablet machines were given as an incentive to the officers who got more points. By that, all officers were directed to perform their duties through this system.

### 5.6 Officer training on the use of online software for departmental officers.

The way the software system is implemented in the 15 fishing districts is monitored separately and the officers of our department are committed to that. The problems they face are dealt with quickly and training was conducted for all the districts that were informed that training was needed.

### 5.7 Conducting a security assessment of the department's servers and network software with SLCERT.





Figure 09: Conducting a security assessment by SLCERT.

IT Division organized a security assessment of the department's servers, network software and all the department's Android application to identify and mitigate the risks in the server system and applications.

### 5.8 Improving the use of e-log system.

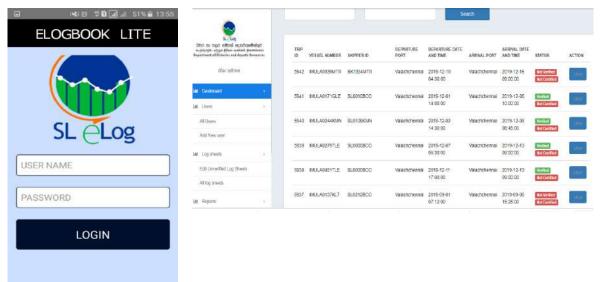


Figure 10: e-log system

In coordination with the Operations Division, the IT Division has introduced the e-log system to all the offices of 23 ports. In daily fishing, data is provided using e-log system and in addition, this system is provided to enter log page data for each port. Currently this is being done successfully and currently 2 years of fishing data reports have been prepared using the data obtained from the e-log system. Data reporting to the Indian Ocean Tuna Commission (IOCT) is done using data captured by the e-log system.

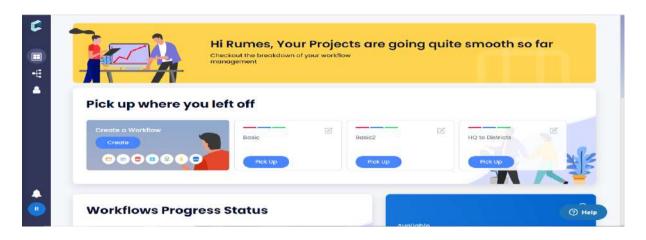


Figure 11: Document Management System (DMS)

### 5.9 Document Management System (DMS) monitoring, support and training.

The IT division successfully procured and implemented Document Management System (Doxpro). Heads of the department have also been given basic training on the document management system (Doxpro). As per their suggestion and requirement, the IT division has purchased the document management system (Doxpro) and forwarded it to the institutes.

### 5.10 Introduction and implementation of dynamic reporting system.

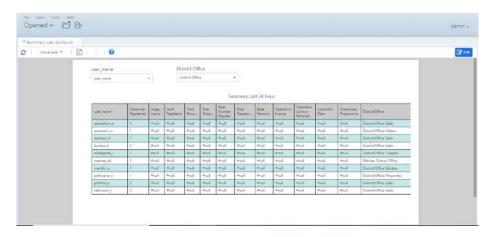


Figure 12: dynamic reporting system

The Department of Fisheries and Aquatic Resources uses large amounts of data to plan future targets, forecast harvests and make day-to-day decisions. The IT department installs and operates the "Hitachi Pentaho" community server in the server system of the department and provides more than 20 reports according to the needs of the department officials. In accordance with our data sharing policy, the IT department has provided multi-user logins and passwords to third parties such as Sri Lanka Navy, Sri Lanka Police.

### 5.11 Improving the use of the R language for data analysis.

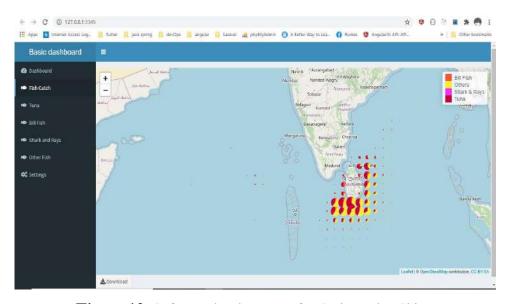


Figure 13: Software development of R-Script and R-Shiny

The Information Technology Division designs, develops and implements R-Script and R-Shiny software for data analysis in the Department of Fisheries and Aquatic Resources. The IT department has created more than 50 maps and reports using them and the majority of the data has been used to report to the IOTC.

### **6.0Operations Division**

### 6.1 Providing communication facilities for the exchange of radio signals in between land and vessels.

All these activities are coordinated by the Central Operational Unit in Colombo through messages received via fisheries communication centers. Communication facilities were improved and action has been taken to keep connection between the land and fishing vessels throughout 24 hours. This provides daily weather reports and early warning of bad weather conditions to fishing vessels and facilitates are made to have essential communication between boatowners and their vessels at Sea. Necessary coordinating activities are being carried out with the Sri Lanka Navy, Coast Guard Department and the Regional Maritime Rescue Coordination Center. 18 regional radio centers are working with the Head Office Colombo for these tasks.

Regional Radio Centres are proposed to be established at the recently established fishery harbours of Milady, Dikowita, Vellamankaraya, Kalametiya and Kapparatota. Currently, the surveillance operations are being carried out as usual using the old radios available in the Department of Fisheries, and the need for new radios for the above fishery harbours has become dire.

# 6.2 Taking action to provide licences and call signs for the fishing vessels for communication purposes.

In order to comply with international rules and regulations, the provision of international call signs to fishing vessels engaged in fishing activities at the High Seas is carried out by the Telecommunication Regulatory Commission on the recommendation of the Department of Fisheries subject to the approval of the Ministry of Defence. Monitoring, Control and Surveillance Division is intervening to expedite the use of radio *Communication devices* in fishing vessels by receiving applications from fishing vessel owners and working in collaboration with the Telecommunication Regulatory Commission.

### **Table 10: Number of Application**

Number of applications	given	for	the	licences	of	radio	
communication devices.							618

### 6.3. Substation of information required to claim insurance cover in case of accidents caused to fishing vessels and fishermen.

When dealing with accidents caused to fishing vessels and fishermen and claiming insurance compensation by them, all the communications made by the fishing vessels to the insurance agencies at the time are certified and produced by using records obtained from the regional offices and the head office. As the Department does not possess salvage boats to rescue fishing boats and crews in distress, bring them to the land and providing them with immediate treatment, assistance of the Navy and the Coast Guard Department is sought in that behalf.

**Table 11: Number of accidents** 

Number of accidents reported at the High Seas	137
Deaths and disappearances at the High Seas	19
Number of fishing vessels destroyed due to accidents	06

### 6.4. Rescue and repatriation of fishermen and vessels arrested in foreign countries.

**Table 12:** Rescue and repatriation of fishermen and vessels arrested in foreign countries.

	Number of	Number of	Number of	Number of	
Country	fishermen arrested	fishing vessels	fishermen freed	fishing	
		arrested		vessels freed	
India	14	3	11	0	
Maldives	13	3	1	0	
Seychelles	6	1	0	0	
Myanmar	5	1	5	0	

In this rescue mission, assistance of the Ministry of Foreign Affairs and the Sri Lanka's High Commission in India and Maldives, France as well as in London is obtained.

### 6.5 Rescue of fishing vessels which drifting sea limits of the local, international and foreign countries

Table 13: Number of fishermen, fishing vessels rescued

Number of fishermen rescued	Number of fishing vessels	Number of abandoned
	rescued	fishing vessels
460	84	6

Measures were taken to rescue fishing boats that drifted away to the sea limits of nearby countries due to engine failures, fishing boats that were involved in accidents at sea and fishermen who fell sick at sea by Sri Lanka Navy/Coast Guard vessels, merchant ships and fishing vessels and then rescued fishermen were immediately taken to the hospital for medical treatment.

### 6.6 Provision of communication facilities for small / one-day fishing vessels.

This department entered into an agreement with the Dialog Institute and the Department of Meteorology with the aim of providing early weather advisories to the small fishing vessels and fishermen engaged in coastal fishing and preventing loss of lives. Accordingly, in the year 2023, about 100,000 fishermen and their family members have registered in this information service and they are enjoying the benefits.

#### **6.7. Fishermen Awareness**

Although it is an essential requirement to make the fisher folks/ fishers and boat owners aware of the ways and means and instructions to be followed in distress at sea, how to obtain emergency assistance by contacting with the land, the measures to be adopted to protect lives in stormy condition which occurs due to weather hazards and how to obtain radio licences, the same could not be carried out in a proper manner as a result of the economic crisis of the country.

Further, boat accidents were on the increase owing to the rise in use of drugs among crew members on board resulting more deaths and boat destruction. In the recent past there is more inclination of using fishing boats for organized illegal migration. Similarly, technical hazards in fishing boats at sea have increased and especially, as these hazards have occurred near the maritime boundaries of the other countries such occurrences have to be communicated to the rescue operation centers of the said courtiers through the diplomatic mediation. Therefore, awareness campaigns should be conducted for boat owners to encourage them to check the boats before their departure to ensure that they are fit enough to engage in fishing operations at sea.

**Table 14:** Number of departures given for fishing vessels that departed each port-01.01.2023., - 31.08.2023

	Harbour	No.of
		departures
1	Kalpitiya	447
2	Negombo	4,343
3	Dikowita	1,031
4	Beruwela	3,394
5	Mabalangoda	1,015
6	Hikkaduwa	822
7	Galle	3,900
8	Mirissa	2,641
9	Devinuwara	3,898
10	Kottegoda	1,281
11	Nilwella	1,891
12	Kudawella	3,716

	Harbour	No.of
		departures
13	Tangalle	1,217
14	Habantota	474
15	Kirinda	425
16	Valaichchenai	12,016
17	Trincomalee	2,337
18	Point Pedro	196
19	Milady	184
20	Wellamankaraya	618
21	Kapporatota	561
22	Gandara	1,113
23	Kalametiya	220

### 6.8 Entering and managing reports and vessel photographs into the database

**Table 15:** Entering and managing log reports and vessel photographs into the database 01.01.2023-31.08.2023

1.	Number of log copies received by the unit related to operations at the High Seas	1,834
2.	Number of verification reports issued in relation to the operations	1,834
3.	Number of log copies inserted into the log database	24,473
4	Number of reports entered into the Vessel Photographic Data base maintained for IOTC requirements	680

According to the Implementation of Port State Measures 2015 licenses are issued and vessel inspections are carried out for foreign fishing vessels coming to obtain port facilities in Sri Lanka, fish landing or transshipment. According to the Resolution 16/11 of the Indian Ocean Tuna Commission, the inspection reports of at least 5% of the foreign fishing vessels entering the ports of Sri Lanka shall be submitted to the Indian Ocean Tuna Commission.

**Table 16: Services** 

Services	Number of licencissued	es Number of inspections
Transshipment of fish	09	05
Maintenance and supply services	04	01
Eexchanging services of Security officers and foreign fishermen	08	-
Total	21	06

According to the Resolution 11/04 of the Indian Ocean Tuna Commission, at least 5% of the fishing vessels engaged in the High Seas fishing operations shall employ scientific fishing vessel observers and submit the information to the Indian Ocean Tuna Commission.

Thus, in the year 2022, the number of observers deployed for vessels over 24 meters in length and the number of operations performed by those vessels are shown in the table below

**Table 17: Fishing Vessels** 

Total No.of fishing vessels > 24m	Number of active vessels by 2022	Total number of fishing operations	Number of scientific fishing vessel observations
23	08	09	02

- 6.9 Providing timely reports to international organizations such as Indian Ocean Tuna Commission (IOTC), World Food and Agriculture Organization (FAO), European Union (EU) and representing Sri Lanka in annual meetings.
  - The reports to be provided annually for the Indian Ocean Tuna Commission are provided subject to the prescribed dates.
  - According to the Resolution 10/11 of the Indian Ocean Tuna Commission, the relevant technical officers participated in the annual meeting under the funds granted to the developing member countries to participate in the committee meetings and sessions.
  - Accordingly, Sri Lanka has shown the following progress on compliance since 2010.

**Table 18: Progress on compliance** 

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
5%	18%	47%	51%	60%	74%	77%	82%	87%	90%	86%	76%	83%

### 6.10 Installation of 4200 Vessel Monitoring System Devices (VMS) on multi-day fishing vessels.

Sri Lanka is a very rich country in the field of fisheries industry and currently about 300,000 families are engaged in this sector. The Department of Fisheries and Aquatic Resources is responsible for the management and development of those resources in Sri Lanka. As far as the management is concerned, monitoring is of utmost importance and a Fisheries Monitoring Center (FMC) of DFAR is being created and developed aiming at the above purpose only. FMC mainly targets on the monitoring of 5200 multi day boats and their activities.

Although 1500 vessels have been controlled and monitored through this VMS system at the High Seas since 2015, about 4200 remaining vessels are not covered by VMS. Hence, installation of VMS on all multi-day vessels was a timely need to monitor the entire multi-day vessel and the best and cost-effective way to do this. However, the Australian Government through a Memorandum of Understanding (MoU) is supporting the purchase of the above 4200 VMS units with funds. In this regard, the Australian Government conducted an international tender through an independent agency, IOM (International Organization for Migration), and selected a suitable supplier. Accordingly, a new VMS system; (Blue Tracker VMS) was introduced to the multi-day fisheries sector in Sri Lanka. Blue Tracker transponder uses Iridium as a satellite service, which is most economical and technically acceptable for monitoring purpose. VMS system software known as "second screen" is capable of monitoring through many advanced features such as advanced reports and alerting facility.

Monitoring facility can be provided to harbour officer through web-based system to provide effective services to fishermen through VMS system. The equipment is also suitable for the types of boats in the Sri Lankan fleet. Therefore, it is expected that the VMS system will work efficiently in the future. Installation of VMS started in late August 2020 and about 4150 units have been installed so far. VMS are installed at about 15 harbours around the Island. Second screen software has been configured and all geo-zones have been uploaded. Satellite charges were collected from boat owners and accordingly DFAR paid monthly bills to the company. Bill payment and maintenance of equipment is also done through a software developed by the Information Technology Division of the Department of Fisheries. Officers, boat owners and skippers are aware of the system and its functional aspects. In addition, stickers are installed on the wheelhouse of the boat, by which skippers are educated about the technical and legal requirements to operate VMS on board.

Current VMS has the ability to provide cost-effective and efficient service to boat owners. Here, the antenna mounted on the vessel operates with a very low power requirement (2W) and is capable of using its backup power for up to 3 days in the absence of the main power supply. The system's equipment is capable of programming over-the-air, allowing FMC crews to perform operations that are easy and smooth. The boat creates automatic alerts when the same is near controlled access areas like EEZ of other states.

The reporting frequency has been increased from 04 hours to 01 hour when using innocent channels for passage within the EEZ allowing the FMC staff to closely monitor the vessel. As optional requirements the supplier will provide LED Conbox (display) to be installed in vessels and will work with VMS system, allowing fisheries department and vessel owner to communicate with local language about fish finding, warnings, weather. The system is capable of providing the mobile interface to the boat owner as an optional service so that the vessel owners can monitor their vessels individually via smartphone. Although Sri Lanka is facing a multifaceted crisis, the first COVID 19 pandemic and the current economic crisis, DFAR plans to add 2000 more vessels under its monitoring capabilities to reduce illegal, unreported and unregulated (IUU) fishing and improve fisheries safety at sea with the support of its stakeholders. The VMS system is accessible through all concerned harbour offices and which is centrally managed by the Fisheries Monitoring Center (FMC) located at the Head Office premises of DFAR. Currently, FMC monitors vessels throughout24x7. One of the main duties of the FMC is to detect suspicious behavior such as entering the foreign countries, damaging VMS etc. FMC daily detects vessels with no or low signal (known as silent vessels) and takes necessary action to cancel vessel departure until their vessel re-enters into the relevant system.

Information on all suspicious vessels, including the vessels with VMS devices deactivated for a long period, will be forwarded to the Investigation Division for investigation. Continuous surveys were conducted to develop a model to identify vessels which are prone to be used for illegal activities such as human trafficking, drug trafficking and border crossing. FMC intends to introduce pattern recognition to identify vessels that may be used for illegal activities.FMC has been modernized with cutting edge technology under Australia –Sri Lanka VMS project, and accordingly the Sri Lanka FMC has been recognized as a state of art monitoring centre in Asia.



Figure 14: Vessel Monitoring Centre



























Figure 15: Special Occasions

### 03

### National Aquaculture Development of Sri Lanka (NAQDA)

#### Vision

To be an apex organization responsible for sustainable development and management of aquaculture and inland fisheries to ensure food security and improve the quality of life of the people.

### Mission

To contribute to the improvement of the social- economic conditions of rural societies and alleviation of poverty by facilitating the supply and availability of freshwater and brackish water fish through sustainable management of the aquatic resource and encouraging the development of small, medium and large scale aquatic enterprises.

### **Key Functions**

- To develop aquatic resources and the aquaculture industry for increasing fish production in the country and the nutritional status of the people.
- To promote the creation of employment opportunities through the development of freshwater aquaculture, coastal aquaculture and sea farming.
- To promote the farming of high valued fish species including ornamental fish for export.
- To promote the optimum utilization of aquatic resources through environmental friendly aquaculture programs.
- To promote & develop small, medium & large scale private sector investment in aquaculture.
- To manage, conserve and develop aquatic resources and the aquaculture industry.
- To carry on business as an importer, exporter, seller, supplier and distributor of aquatic resources.
- To prepare and implement plans and programs for the management, conservation & development of aquaculture and aquatic resources.

### **Inland Fisheries and Aquaculture Production**

Inland fisheries and aquaculture sub-sector contribute about 29% of the country's total fish production. This sub- sector plays an important role in strengthening rural economy of Sri Lanka and contributes positively towards ensuring food security, enhancing nutritional standards, providing employment/livelihood opportunities and earning foreign exchange.

2023 Target (Mt)	Inland Fisheries and Aquaculture Production (Mt) (January – September)	Achievement
158,000	82,055* (Seaweed production is also included.)	52%

<sup>\*</sup>Can be updated



The inland fish production from culture-based fisheries in perennial and seasonal reservoirs and freshwater aquaculture production up to September 2023 was 70,785 Mt. Coastal Aquaculture production including Shrimp production up to September 2023 was 11,270 Mt.

### **Stocking of Fish Fingerlings and Freshwater Prawn Post Larvae**

Annual stocking targets of fish fingerlings and freshwater prawn post larvae with progress up to August are given in Figure 1.

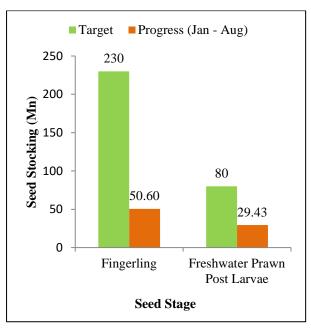


Figure 1: Stocking Targets of fish fingerlings, freshwater prawn post larvae and achievement





In 2023, stocking of fish fingerlings and freshwater prawn post larvae is carrying out only using Fisheries Societies and other agencies funds. Hence, stocking of fish fingerlings and freshwater prawn post larvae were reduced due to non-availability of government funds for free stocking programme.

### **Fresh water Fish Seed Production**

One of the major activities of NAQDA is the production of fish seeds for stocking of inland water bodies to enhance fish production. The Aquaculture Development Centers (AQDCs) at Udawalawa, Dambulla, Inginiyagala, Iranamadu, Kalawewa, Nuwara Eliya, Polonnaruwa and Muruthawela produced fry and were distributed to Private Pond Owners (PPO), Pens, Cages and Community Based Organizations (CBO) managed Mini Nurseries for rearing to fingerling size. Also Freshwater Prawn post larvae produce at Pambala, Kahandamodara and Kallarawa AQDCs. Fish seed production up to August is given in Figure 2 and figure 3.





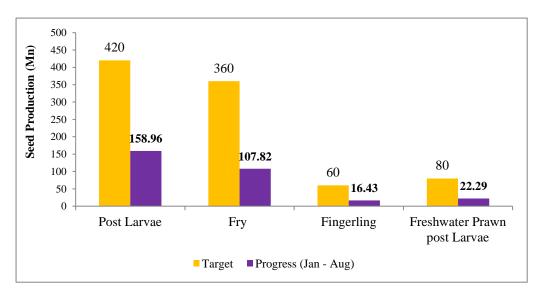


Figure 2: Fish seed production of AQDCS (Provisional)

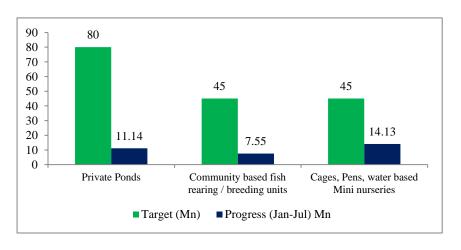


Figure 3: Fish fingerling production from Private Ponds, Mini Nurseries, Cages, Pens (Provisional)

### Thambalaya (Labeo lankae) breeding and reintroduction programme

The Red-fin Labeo (*Labeo lankae*) is a medium sized freshwater fish endemic to Sri Lanka with a restricted range in the north-western dry zone and an evolutionary significant conservation unit in



the Malwathu Oya basin. The species underwent large scale declines in the dry zone rivers and tanks during the last 40 years and was feared extinct, until it was recently rediscovered in the mid and lower Malwathu Oya basin in 2018. The remaining natural population of the species is under the pressure of illegal fishing activities, habitats destructions as well as the competition from exotic species.

Endangered fish *labeo lankae* acclimatization and breeding experiments were conducted at Fish Genetic unit at Dambulla and after 2 years experimental breeding practices, Induce breeding technique was succeeded to produce offspring at the first ever breeding of *labeo lankae*. 32,000 *labeo lankae* fish were reintroduced to Thumbikulam tank, Habarana located in upper Malwathuoya basin on 22.05.2023 parallel to the World Biodiversity Day. This was a historical event as the first fish reintroduction programme organized to conservation of endangered fish species in Sri Lanka. This endanger fish reintroduction programme to their original habitat was planned with help of fisheries expert group including universities and government organizations.

### **Coastal Aquaculture Development**

### **Shrimp Farming**

This is the biggest commercial aquaculture activity in Sri Lanka. At present, the shrimp industry is being managed to an effective level due to continued surveillance and monitoring activities of NAQDA. In order to increase the shrimp production NAQDA has planned to intensify the shrimp culture activity through introduction of water recirculation system and enhancing the biosecurity of farming area, Dredging of Dutch canal, establishment of Common Electricity Supply for Shrimp Farms in Puttalam District. Shrimp production up to September 2023 was 8545 Mt.





### Sea cucumber Breeding and Farming

Sea cucumbers are amongst the highest-value seafood available commercially. Since there is a growing demand for sea cucumber in the export market, steps has been taken to promote sea cucumber farming among the local fishing communities to support their livelihood and bring much-needed foreign exchange to the country. NAQDA provided expertise to breed Sea cucumber in private hatcheries; one hatchery is operating in Jaffna. Farming is carrying out by private



sector in Mannar, Kilinochchi, Jaffna and Puttalam. 407 Mt (weight) were harvested from pens up to September 2023. In order to increase the sea cucumber exports sea cucumber village is operating at Valeipadu, Kilinochchi. Also, 1900 acres have been identified in the Jaffna District for sea cucumber farming.

### **Sea bass Farming**

The private sector is engaged in sea bass farming in Gampaha, Batticaloa, Mannar, Galle, and Trincomalee Districts. Further, a private company is carrying out a sea bass farming project in the Trincomalee Sea and this is the Sri Lanka's first oceanic fish farm. Sea bass harvest up to September 2023 was 942 Mt.





### **Seaweed Farming**

NAQDA facilitates sea weed farming with community participation in Northern, and North Western Sea. Sea weed harvest in 2023 up to September was 1239 Mt (wet).





### **Ornamental Fish Farming**



NAQDA is involved in development of new ornamental fish strains, development of technology, provide brood fish, fish disease diagnosis, provide training and technical assistance etc. to support development of ornamental fish and aquatic plant culture and exports.

Ornamental Fish Breeding Centres at Rambodagalla, Ginigathena and Sevanapitiya are dedicated for production of ornamental fish and plants. These centers sold 2.70 Mn

ornamental fish for farmers and exporters up to September 2023. Also, 595 people were trained in ornamental fish farming at Ornamental Fish Breeding and Training Centre, Rambodagalla.

Freshwater aquarium fish comprise the more colorful and striking species of guppies, swordtails, platys, bards, tetras, angels, gouramies and catfish. Out of these freshwater species exported from Sri Lanka, about 50-60% consists of guppies. There are about 60 regular exporting companies in Sri Lanka. Major buyers for Sri Lanka ornamental fish are USA, UK, Germany, China, Australia, Poland, France, Japan, UAE and Italy.

Marine ornamental fish fetches a very high price, when compared to freshwater ornamental fish and there is a high demand in International markets. In order to disseminate the technology, increase the product range of ornamental fish and enhance foreign exchange earnings, NAQDA has taken steps to establish a Marine Ornamental Fish Breeding Centre in Bangadeniya, Puttalam and operate it under public private partnership.



### **Aquaculture Export Performance**

Species	2023 (January – September)					
	Export Quantity(Mt)	Export Value(Rs. Mn)				
Shrimp	2,942.6	7,349.0				
Ornamental Fish	n.a	6,373.7				
Sea cucumber	308.2	3,592.6				
Crabs	1,171.8	5,320.6				

### 04

# National Aquatic Resources Research and Development Agency (NARA)

### Vision

To be the premier institution for scientific research in conservation, management and development of aquatic resources in the region.

#### Mission

To provide innovative solutions for national development issues in the aquatic resources sector utilizing scientific and technological knowledge & resource base.

### **Key Functions**

- The National Aquatic Resources Research and Development Agency (NARA) is the principal national institute responsible for conducting and coordinating research, development, and management activities related to aquatic resources.
- Ensure the application of scientific and technological expertise for the national development program related to living and non-living aquatic resources.
- Promote and conduct research activities directed towards the identification, assessment, management, conservation and development of aquatic resources and in particular in the following fields;
  - Oceanography and Hydrography
  - Improvement and development of fishing craft, fishing gear and equipment, and fishing methods
  - ➤ The social and economic aspects of the fishing industry, including the welfare of fishermen and their dependents
  - The processing, preservation and marketing of fish and aquatic products
  - The development, management and conservation of aquatic resources in the inland waters, coastal wetlands and off-shore areas
  - Provide advisory and consultancy services on scientific, technological and legal matters relating to the exploitation, management, conservation and development of aquatic resources.
- Coordinate activities related to the exploitation, planning, research, development, conservation, control, and management of aquatic resources among institutions.
- Undertake the collection, dissemination and publication of information and data useful for the management, conservation and development of aquatic resources and the fishing industry in Sri Lanka.
- Provide training for persons required to carry out or assist in the work of the Agency.

#### 1. RESEARCH HIGHLIGHTS

### 1. INLAND AQUATIC RESOURCES AND AQUACULTURE DIVISION

Project 1: Enhancement of export oriented aquatic ornamental industry through technology development for intensive culture *in vitro* propagation

## Component 1: Intensive culture technique development for the selected variety of *Poecilia reticulata*; fancy guppy

Re-circulating Aquaculture System (RAS) has been developed to increase the stocking density of guppy fish (Figure. 1).





Figure 1. Re-circulating tank system after modification

## Component 2: Development of fancy verities by hybridizing the endemic *Dawkinsia* spp. and *Pethia* spp.

- Male *Dawkinsia filamentosus* and female *D. srilankensis* brooders were subjected to an openpond cross-breeding experiment. Evaluation of the offspring for attractive features was mainly done selecting black-headed character which, is very noticeable (Fig.2). Sexing of the black headed offspringwill be done once these matured.
- Another cross-breeding trial using the same line was initiated in August in 5'X5' outdoor cement tank.



Figure 2. Black headed hybrid -F1 generation

### Component3: Development of protocols for in vitro propagation of selected *Bucephalandra* spp. and to develop aqua-soil for hardening or propagation of aquatic plants

Protocols for *in vitro* propagation *Bucephalandra* spp. are being developed. Three types of aqua soils that are required for hardening or propagation aquatic plants have been developed (Figure 3A). Experiments were conducted for callus development of *Nympheae midnight*.

Extension program was conducted on "Knowledge Disseminating and Develop Chain Market for Ornamental Plants and Fish in Kaluthara District". *Crytocoryne wendtii* plants were prepared by tissue culture technology, for sale (Figure 3B).



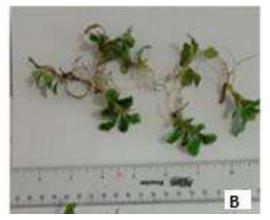


Figure 3A. Different aqua soil types and Figure

3B. Crytocoryne wendtii plants produced by tissue culture

### Project 2: Evaluate the optimum culture conditions for grow-out farming of sea cucumber; *Holothuria scabra* in Northern Province of Sri Lanka

Identified five critical issues affecting farm performance highlighted the need for targeted interventions enabling sea cucumber farmers timely adjustments and improvements enhance sustainability overthree field programs continuous assessment of commercial sea cucumber farms (Figure 4). Scientific studies are being continued on peripheral sea areas near sea cucumber farmingpens emphasized the significance of considering broader ecosystem impacts in sea cucumber farming strategies. The preparation and execution of feeding trials and water quality monitoring showcased the viability and acceptance of the formulated feeds.

Community engagement and awareness organized awareness and community-based program engaged stakeholders, fostering a collective commitment to responsible sea cucumber farming practices. The participation of 20 stakeholders demonstrated the keen interest and potential for broad-based collaboration in promoting sustainable aquaculture.



Figure 4. Field activities conducted during the study

#### 2. MARINE BIOLOGICAL RESOURCES DIVISION

## Project 1. Monitoring and assessment of large pelagic fishery resources

A study on catch rates of different large pelagic in Sri Lankan tuna long line fishery, has found that types of bait used in long line influence the catch rates of bill fish. Among the range of bait types, Indian scads (*Decapterus* spp.) have the highest potentiality in catching bill fishes, more importantly sword fish (Figure 5).

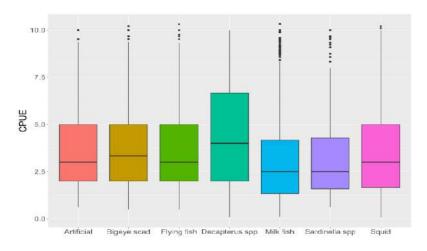


Figure 5. Catch rates of sword fish by different bait types

Population dynamics of Kawakawa in Sri Lankan waters revealed that there is a possibility of experiencing growth overfishing on the kawakawa stock. Among the shark landings by the ring nets, majority are consisted of silky sharks whereas more than 80% of them were juveniles. Management measures should be taken to minimize the population decline of silkysharks.

## Project 2. Monitoring assessment of coastal fishery resources in Sri Lanka

Resources of some of target small pelagic fishery in the west coast of Sri Lanka has already shown several alarming signals such as declining CPUE and MTL and increasing non-target species over the past twenty years owing to overfishing of targeted commercial species coupled with climatic impacts. However, a management plan is to be implemented for sustainably manage the small pelagic fisheries in the west coast of Sri Lanka.

**Sea cucumber survey:** Findings of the underwater visual survey which was carried out to estimate the sea cucumber resource in the coastal zone of the Mullaithivu area, revealed that *B. vitensis* (Brown sandfish/Line nool attaya) is the most commonly available species and can harvest a maximum of 418.5 tons per year. In contrast, *Holothuria edulis* (pink fish) is the least abundant species which is below the level of 10 tons and is not recommended to harvest. Moreover, two species named *H. spinifera* (Disco attaya) and *S. naso* (*Pawakka*) are recommended to harvest with a maximum limit of 16.65 tons and 18.75t per year, respectively.

**Molecularwork:** On the 11<sup>th</sup> of February 2023, 14 pilot whales were beached on the Kandakuli ya beach in Kalpitiya (Figure 6). Massive efforts were put in to rescuing them but initially 3 whales dies and subsequently 1 more died. Samples from 3 of these whales were taken for molecular identification. When the 3 sequences obtained were matched with the NCBI database, it identified the whales with more than 98% accuracy as the species *Globicephala macrorhynchus*, commonly called short-finned pilot whales.

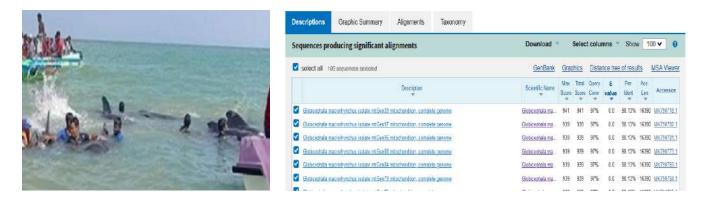


Figure 6. Rescue efforts on whales beached Kalpitiya in 11<sup>th</sup> February, 2023

## 3. NATIONAL INSTITUTE OF OCEANOGRAPHY & MARINE SCIENCES

## Project 1: Tuna fishing ground advisory and fisheries information service project

NARA generates and issues two separate advisories on Yellow fin tuna and skipjack tuna three days per week (Figure 8). Advisories are disseminated to multiday fishing groups (vessel owners and skippers) and DFAR officers through WhatsApp group members (> 700 numbers);380 email subscribers (including ~350 vessel owners); 1700 Facebook followers for FIS NARA page (2000+ reach per each post) <a href="https://www.facebook.com/tuna.forecast">https://www.facebook.com/tuna.forecast</a>

¿Dialog "Sayuru" network (TV screens at 5 harbours; 25000 Facebook followers) and conducted awareness programs; and display banners and distribute leaflets (Sinhala/Tamil) in all active fisheries harbours.

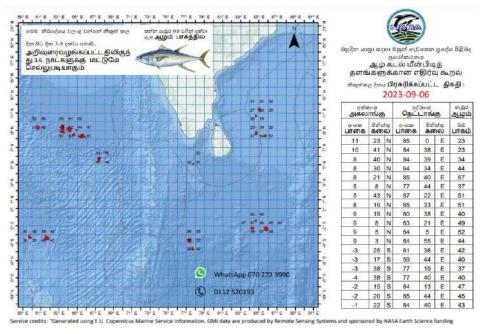
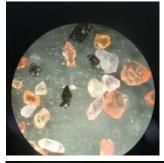


Figure 8. Yellow fin tuna forecasting Advisory issued on 06-09-2023

# Project 2: Prospecting and quantification of garnet bearing sand deposit in South-eastern coast of Sri Lanka as a tool to enhance the foreign exchange

The project aims to identify garnet sand deposit to cater the future requirements while strengthening the export market. The beach sand samples were collected from locations of Hambantota and Ussangoda. The heavy mineral percentage within the required grain size (1-45mm)lies between 50-80% in surveyed areas. (Figure 9).





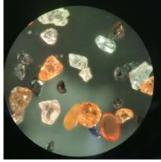


Figure 9. Concentrated minerals and in Hambantota (L) &view through optical microscope (R)

# Project 2: Restoring lagoon dynamics and ecology under ecosystem-based approach: a case study of Lankapatuna Lagoon in Eastern coast of Sri Lanka

During the second inter-monsoon period on the Hydrodynamic studies of the Lankapatuna lagoon. During the first inter-monsoon period, the salinity range of the Lagoon has decreased comparatively in 2022 (Figure 10&11). It can be seen here that more water came to the lagoon through the river than last year, and it is at the required level for activities of the lagoon organisms. According to the National Environmental (Ambient Water Quality) Regulations No. 01 of 2019, lagoon pH and other nutrient levels were within the standard limits except Phosphate level which is higher than standard value of 0.4 mg/L. 90% of bottom sediment compact with fine sand and 9% represent clay and silt. The recorded tidal amplitude in the open sea was 60 cm while in the lagoon mouth was 9 cm and the head of the lagoon is 5 cm. The emphasized phase lag from Lagoon mouth to head (6 km) is about 6 hours.

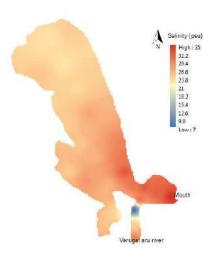


Figure 10: Lagoon surface salinity in 1<sup>st</sup> 1<sup>st</sup>Inter-monsoon 2023

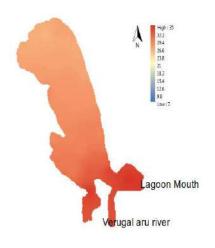


Figure 11: Lagoon surface salinity in 1<sup>st</sup> 1<sup>st</sup>Inter-monsoon 2022



Figure 8. Under water survey conducted in 2023: A., B., and D.; School of small fish around the degraded Fish Aggregating Devices (FADs) deployed in sea in Sinapaduwa in 2018; and D, School of small fish around bus and F., physically damaged vehicle submerged in sea in Trincomalee.

## 4. INSTITUTE OF POST-HARVEST TECHNOLOGY

## Project 1: Introduction of a modified cooling system for multi-day fishing vessels

Aiming to minimize the high percentage of post-harvest losses in multi-day fisheries, NARA, in collaboration with the Ministry of Fisheries, National Engineering Research and Development Centre (NERDC) and DFAR, under the financial assistance of FAO, a multiday fishing boathas been upgraded by installing a refrigerated system and compartmentalized the fish hold in order to for reduce ice melting rates in fish hold of boat. The modified vessel was launched at an event held on the 03rd of January 2023, at the Dikovita Fisheries harbour premises, under the auspices of Prime Minister Hon. Dinesh Gunawardena, Fisheries Minister Hon. Douglas Devananda, Fisheries State Minister Hon. Piyal Nishantha de Silva (Figure 13). Fish quality assessment trials on modified boat is being continued.





Figure 13. Boat Launching Ceremony

## Project 2:Upgrading the dried fish and Maldive fish industry

Institute of Post Harvest Technology has made arrangements to upgrade the Maldive fish industry and dried fish industry in the Southern province. These efforts aim to improve the overall quality and safety of fish products and enhance their market value. In collaboration with NERDC, CEYNOR and the private sector IPHT has developed a set of innovative equipment for the hygienic production of Maldive fish without compromising the traditional flavor and quality of the final product (Figure 14). As a result, six beneficiaries were able to upgrade their Maldive fish production.



Figure 14 A., Modified smoking unit

B. Drying tables

#### 5. ENVIRONMENTAL STUDIES DIVISION

# Project 1: Development of Coastal Water Quality Index (WQI) for Southern beaches: a road to the Blue Flag Certification

Prevailing water quality conditions at the southern beaches, specifically Unawatuna, Mirissa, and Polhena using Water Quality Index (WQI)towards acquiring the "Blue Flag Certification" for the selected beaches with the purpose of further elevating the desirability of these beaches for international tourism purposes (Figure 15).

All the physic-chemicalparameters have been recorded within the stipulated standard limits except for e-coli levels (microbiological parameters) in water at some of the water samples. Water samples collected from 2 locations in the Unawatuna beach have exceeded the standard limits for *E-coli* levels and Intestinal *Enterococci* levels in water (measured values have been compared with standards defined by the Foundation for Environmental Education (FEE) for the Blue Flag certification programme.



Figure 15B. Open water sampling at Mirissa Beach, and 15C. Water sample collection from

#### Project 2: Research Insights for the Sustainable Management Plan of Chilaw lagoon

Analytical results indicated that average values of dissolved oxygen, BOD concentration were marginal while COD and oil and grease concentration exceeded according to the maximum permissible limits of National Environmental Regulations, No. 01 of 2019 (Ambient Water Quality). A dense algal growth was observed on the surface of water along the periphery of the southern parts of the lagoon and near several shrimp farms indicating heavy eutrophication. Prominent algal species was identified as *Oscillatoria* spp.

## 6. NATIONAL HYDROGRAPHIC OFFICE

## **Project 1: National charting programme**

Topographic data collection for preparing Electronic Navigation Chart (ENC) from Colombo to Weligama has been conducted during the period from January to August.

# Project 2: Establishment of unit for database and digital data processing for crowd sourced bathymetry parallel with the sea bed 2030 global mapping project of the General Bathymetric Chart of the Ocean (GEBCO) /Nippon foundation

The aim is generating a map of sea floor of our EEZ contributing to scientific research, navigation safety, environmental monitoring, finding unrevealed geomorphological features etc. Crowd sourced bathymetry project involves collecting bathymetry in our EEZ from variety of sources including volunteers, researchers, non-survey vessels (commercial, fishing, recreational etc.), data processing and maintain the database. From January to August 2023, data processing and database updating has been done with bathy data obtained from Fridget of Nanson bathy, cable laying ship Mv.Responder, and SEA ME WE 6 Submarine cable project (Figure 16).

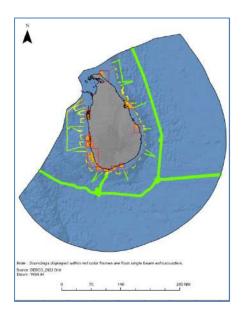
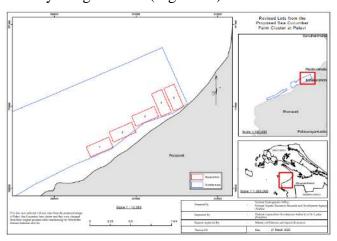


Figure 16. Crowd sourced bathymetry project

## **Project 5: Development Projects**

Demarcation and mapping of areas in the sea for Sea Cucumber export Village in Mannar, Killinochchi and Jaffna District.

Surveys have been carried out for demarcation and mapping the sea areas for sea cucumber farming for Palavi, Iranativu, Kavdarimunai, Kiranchi, Kumalamunai, Nachchikuda, Pallikuda and Valaipadu during the period of January- August 2023 (Figure 17).



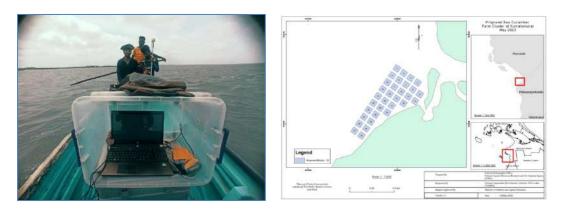


Figure 17. Demarcation and mapping the sea areas for sea

## Bathymetric Survey at Norochcholai for Ceylon Electricity Board

Bathymetric survey has been conducted near shore areas of Norochcholai for preparation of Navigation chart for coal transportation for Ceylon Electricity Board. Electronic Navigation Chart (ENC) for Norochcholai harbor has been prepared and submitted to United Kingdom Hydrographic Office (UKHO) for validation (Figure 18).

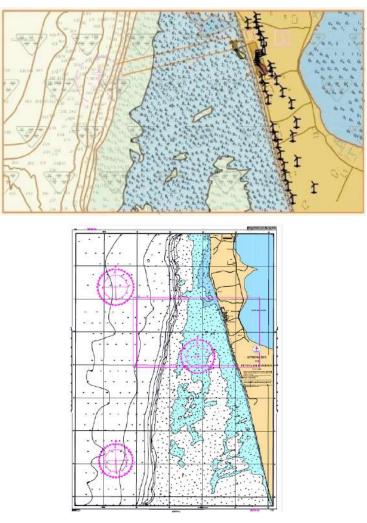
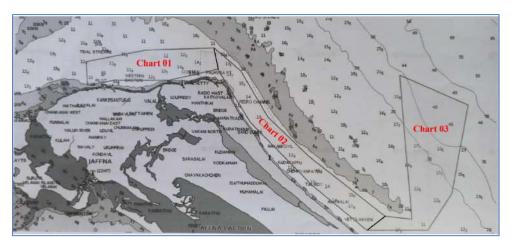


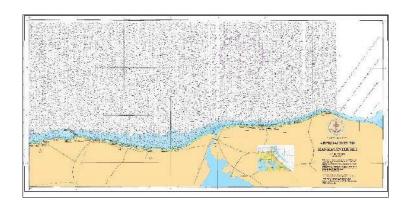
Figure 18. Electronic navigational chart of Puttalam

# Preparation of Navigation Chart to first international Cruise from Chennai to Sri Lanka for vessel Cordelia by Clarion Shipping, Hayleys Group

Clarion Shipping (Pvt) Ltd has requested a navigation charts for the first international cruise from Chennai to Sri Lanka.NHO has been prepared the requested chart using available bathymetry at the NHO database as considering their urgent requirement(Figure 19).







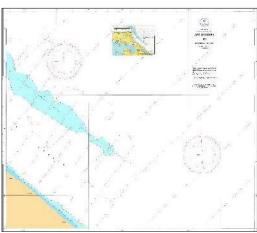


Figure 19. Prepared nautical charts for navigational route

## **Establishment of Data Center for NARA**

Establishment of data center for NARA has been initiated collaborates with all the other research divisions of NARA for data management, storage and visualization andto sharing data and information with the outsiders (Figure 20).

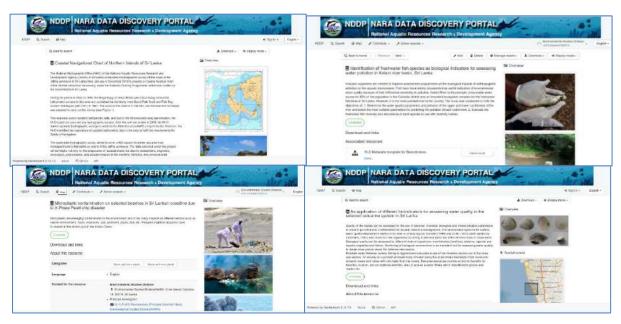


Figure 20. Prepared nautical charts for navigational route

## **Participation of GEBCO Alumni**

Two officers, who are scholars from GEBCO have been participated the alumni conference 2023, theme of "Connecting Our Oceans" inTokyo, Japan .Project proposal "Shelf Break 2 abyss: Seafloor Mapping and Characterization off the continental shelf, Sri Lanka" has been submitted to the grants and it is under consideration (Figure 21).

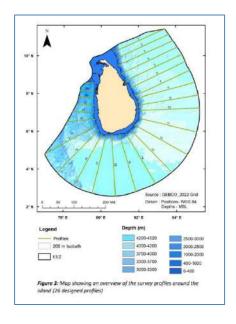


Figure 21. Seafloor mapping and characterization off the continental shelf, Sri Lanka

#### 7. SOCIO ECONOMICS AND MARKETING

# Project 1: Value chain development of Skipjack tuna fishery in North-west and West coast of Sri Lanka

This survey study was conducted to introduce the gilling and gutting practices to upgrade quality of Skipjack Tuna(*Katsuwonus pelamis*) which is one of the most important commercial fish species around the world., caught by multiday fishers in Negombo and Beruwala in Sri Lanka (Figure 22).A total number of 40 questionnaires were completed through face to face interviews.

Study revealed that about 43% of the respondents was aware of the technique but none of them have ever practiced for skipjack tuna but for other species such as yellow fin and big eye tuna. The following barriers on practicing gilling and gutting of Skipjack Tuna were identified.

Although fishers aware of importance of practicing gilling and gutting technique for better quality of tuna in multiday fisheries fishers reluctant to practice it due to a number of physical, financial and market constraints. If facilities are provided to overcome those constraints fishers are eager to practice the technique in multiday fisheries in Sri Lanka.



**Figure 22.**A., Field observations; B.,Data collection; C and D., Awareness programs conducted at Negombo and Beruwala hourbours, respectively

## 8. REGIONAL RESEARCH CENTERS (RRCs)

#### **KAPPARATHOTA RRC**

Two hundred units of anti-depredation pingers were imported by NARA for trial study of its suitability against depredation of marine mammals for fishing gears. Moreover, questionnaire survey was performed in fisheries harbours to studying the spatial and temporal variations and estimate the losses of depredation. The first trial was very successful and from 220 hooked yellowfin tuna fishes only one fish were depredated. Further based on current study it was estimated that the depredation loss per fishing trip is vary SLR 995,000-1,435,000 and during the early months of the year (Northeast monsoon) damages were significantly increased. Further, it was revealed that the losses and damage frequency in High seas are higher than the operations within EEZ.

#### **PANAPITIYA RRC**

Novel ornamental fish using Black soldier fly larvae feed is being developed. The growth of the fermented insect meal included in diet-fed fish was higher than the unfermented insect meal included in diet-fed fish.

#### **REKAWA RRC**

Seabass cage culture is introduced as a livelihood development activityin Rekawa lagoon. (Figure 23). Analysis of water quality of the lagoon showed that culturing of brackish water fish and prawns, especially, the restocking of *P. monodonis feasible* during the South West (SW) monsoon period.



Figure 23. Pilot project on introduce seabass aquaculture in Rekawa lagoon.

#### **KALPITIYA RRC**

Trammel nets were studied as an alternative fishing gear for catch *Peneaus semisulcatus* which isthe target shrimp species in the trawl fishery, But it was noted that the major target species in trammel net are *Peneaus merguiensis* and *P. indicus*. Though, *P. semisulcatus*; is recorded comparatively with very low quantities, trammel net could not be considered as an alternative method for trawl fisher (Figure 24).



Figure 24. Nature of the fishery (a) Gangewadiya fishing ground area and landing site (b) Trammel net catch composition (c) major shrimp species

#### KADOLKELLE RRC

Experiments are being conducted to develop breeding technology for green mussels in farming in Negombo lagoon. Three suitable sites and six beneficiary families were selected to this pilot project (Figure 25).





Figure 25. Experiment trials of green mussel culture

Potential usage of selected bio-stimulants for air-layering on endangered mangrove, *Scyphiphora hydrophyllacea* in Kadolkele-NARA Regional Research Center of Sri Lanka, towards its species conservation (Figure 26).





Figure 26. Mangrove fauna and field education center at RRC Kadolkelle

## 9. EXTENSION SERVICES

An International workshop was organized in parallel to World Ocean's Day on the theme of 'Towards a National Ocean Policy' on 08<sup>th</sup> June 2023 at the NARA auditorium in collaboration with China Sri Lanka Joint Center for Education and Research (CSL-CER). A number of stakeholders in the oceanic and maritime sector and NARA officials were participated to this event. It served as an initial discussion platform with all the experts in the oceanic and maritime sector to open the first step of a long-term process of formulation a "National Ocean Policy" for sustainable ocean economic development.





Figure 27. Some event of an International workshop held at NARA

The following extension programmes were conducted during the period by NARA head office (Figure 28).

Table 1. Training Programmes –Jan – Aug., 2023

No.	Date	No of	Institute	Remarks
		<b>Participants</b>		
01.	2023.03.21	36	Instant Action Vessel Squadron	
02.	2023.04.01	47	Naval & Maritime Academy - Trincomalee	
03.	2023.04.10	19	Naval & Maritime Academy - Trincomalee	
04.	2023.04.28	36	SLNS – Welisara	
05.	2023.06.13	98	A/Sumangala Maha Vidyalaya – Eppawala	

06.	2023.07.05	25	SLNS – Welisara	
07.	2023.07.26	34	Naval & Maritime Academy - Trincomalee	
08.	2023.07.28	48	Uva Wellassa University	
09.	2023.07.29	25	G/Mahinda Collage – Galle	
10.	2023.07.29	31	University of Colombo	
11.	2023.08.28	26	Naval& Maritime Academy - Trincomalee	
TOTAL 503		503		

**Table 2. Exhibition Works & Other Educational Programmes** 

No	Date	Place / Institute	Remarks		
01.	2023.02.16-17	OKI International School "Science day" exhibition			
02.	2023.05.09-11	Ku/Kalutara Maha Vidyalaya – Kalutara			
03.	2023.05.18-25	K/Rajasinghe National School "Stem Expo" exhibition—			
		Panwila			
04.	2023.06.07-11	Turtle Conservation "Ocean day" exhibition			
05.	2023.08.09-11	Col/ Museus Girl's school "Scimatics 23" exhibition			









Figure 28. Extension programmes for different stake holders

Besides that RRC Kadolkelle alone has conducted 10 programmes of mangrove re-plantation and cleaning collaboratively with various NGO's, government organizations, private sector companies, banks and universities. Twenty numbers of awareness programmeswere conducted for school children, undergraduates, post-graduates, researches, NGO's and government organizations. Five hundred fifty students were aware by RRC Rekawa staff having conducted ten education programmes.

## 05

# Ceylon Fishery Harbours Corporation (CFHC)

## Vision

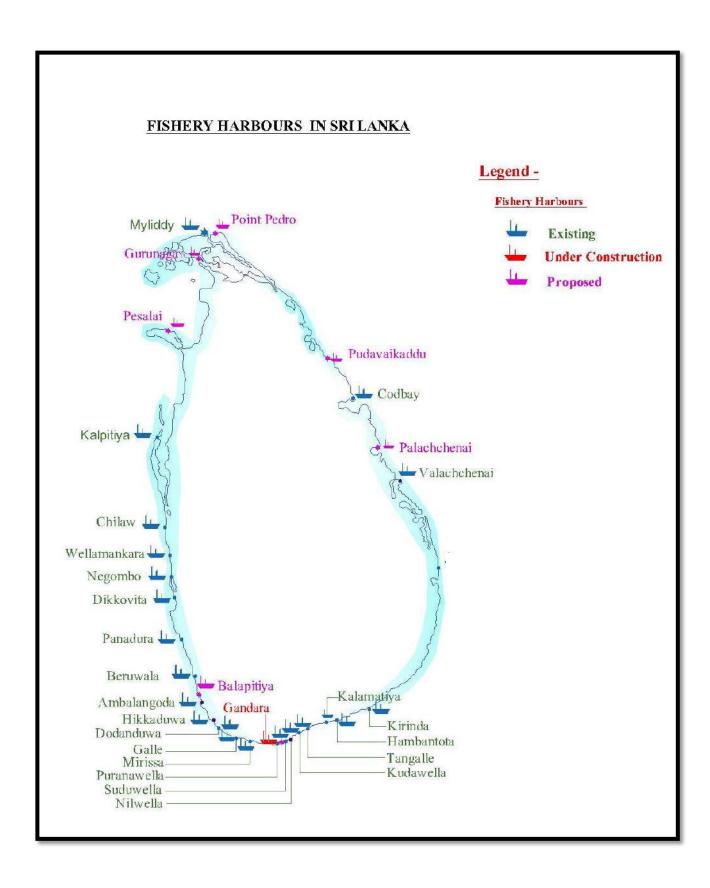
To be the fundamental resource of the fisheries Industry and the inspiration of the local fishing community whilst striving to become the top facilitator of the regions maritime enterprise.

## Mission

To deliver superior quality fishery harbour related services together with supporting infrastructure to provide all modern facilities to the fishing community, and achieve self-sustainability by upgrading the harbours through commercially viable ventures.

## **Key Functions**

- ➤ Planning, designing and constructions of fishery harbours, anchorages, marine structures and other shore facilities,
- Establishment, operation, control and maintenance of Fishery Harbours, anchorages, marine structures and other shore facilities.
- Management of fishery harbours, anchorages, and other shore facilities.
- Provision of repairing and maintenance facilities for fishing crafts.
- Establishment, Operation and Maintenance of cold room, ice plants and other refrigeration facilities.
- Supply of water, fuel, lubricants, electricity, ice, cold room facilities and any other services and any other services incidental thereto for the purpose of fishery industry and fishermen.
- The provision of security to fishery harbours, anchorages, marine structures and other organizations within the Ministry of fisheries
- Aquatic resource, and to recover charges, fees and any other payments on account of it
- The monitoring, control, surveillance of Sri Lanka's Exclusive Economic Zone (EEZ)



# Financing CFHC as at 31<sup>st</sup> of August 2023

Grant	Requested allocation for the year 2023 Rs. Mn	Approved Allocation Rs. Mn	Total Funds Released Up to 31 <sup>st</sup> August .2023 Rs. Mn
Recurrent Grant	681	640	430
Capital Grant	50	46	46

# Financing of CFHC as at $31^{\rm st}$ of August 2023 Capital Grant

Approved allocation was divided as follows.

Grant	Approved Allocation Jan- Dec 2022 Rs. Mn	Civil Rs. Mn	Mechanical. Rs .Mn
Capital Grant	50	25	25

## **Capital Grant – Civil**

## (Allocation 25 Rs.Mn. - Capital Grant) (Allocation 25 Rs.Mn. - Recurrent)

Progress review of Civil Engineering Works till 31<sup>st</sup> of August 2023 by using allocation provided under the Ceylon Fishery Harbours Corporation.

Sub projects/ Activity\ies	Allocatio n		Utilizatio n as at	Financial Progress	Physical Progress	Out Put	Remark/ Issues
	(Rs.Mn)		30th of June 2022	(%)	(%)		
1.1 Rehabilitation &		T	1.26	40%	60%		
Maintenance of							
Existing	3.15						
Breakwater,Quay	3.13	P	0.50	16%	31%		
Wall,Revetments etc							
(CABQ)							
2.1 Proposed		T	0.32	40%	60%		
Boundary Wall and	0.80						
Chain Link Fence.	0.00	P	0.31	39%	110%		
(CABW)							
3.1 Floor		T	3.64	40%	60%		
Preparation of Boat	9.10						
Yard and Other	,,,,	P	0.43	5%	6%		
Areas. (CAIR)			0.77		500/		
4.1 New Partition	1.0	T	0.55	55%	60%		
Works. (CAPW)		P	0.39	39%	44%		
5.1 Roof Repair		T	5.08	40%	60%		
Works, Head Office							
& Fishery Harbours.	12.70	P	3.03	24%	51%		
(CAR)							
6.1 Rehabilitation of		T	4.80	40%	60%		
Existing Buildings.	12.0	P	7.70	64%	101%		
(CARB)		_	7.70	0170	10170		

7.1 Rehabilitation of		T	4.34	40%	60%	
Existing Sanitary Facilities. (CHOSF)	10.85	P	1.01	9%	20%	
8.1 Regional		T	0.16	40%	60%	
Procurement Committee Works. (CARPC)	0.40	P	0.16	40%	130%	
Total	50	T	20.15	40%	60%	
	50	р	13.53	27%	48%	

T = Target P= Progress

## **Mechanical engineering**

## (Allocation 25 Rs.Mn. – Capital Grant) (Allocation 25 Rs.Mn. - Recurrent)

Progress review of Mechanical Engineering Works till 31<sup>st</sup> of August 2023 by using allocation provided under the Ceylon Fishery Harbours Corporation.

Sub projects/ Activity\ies	Allocation (Rs.Mn)		Utilizati on as at 30th of August 2023 (Rs.Mn)	Financial Progress (%)	Physical Progress (%)	Out Put	Remark/ Issues
<b>1.1</b> Purchase of 05 No's	1.50	T	0.60	40%	60%		
of new 120L/Min speed fuel dispensing units (MPNDH)		P	0.0	0%	0%		
2.1 Repaires /	4.5	T	1.80	40%	60%		
Maintanance of Fuel Dispensing Unit at all harbours (MHDGM (II))		P	3.98	88%	90%		
3.1 Service &	3.5	T	1.40	40%	60%		
maintenance of Tractors, Trailers, Gener ators, Trollety & weighbridge of all harbours. (MSMTG (II))		P	0.76	22%	30%		
<b>4.1</b> Repair &	1.75	T	0.70	40%	60%		
Maintenance of machinery at all harbours (travel lift - Mirissa & Dikkowita) & slipways @ Galle & Tangalle F/H's. (MRMPS)		P	1.77	101%	110%		
<b>5.1</b> General		T	3.16	40%	60%		
Maintenance of heavy machinery. (MHMGM)	7.9	P	11.74	149%	150%		
<b>6.1</b> Maintenance	3.0	T	1.20	40%	60%		
repaires & General Expences of cutter		P	2.14	71%	75%		

					ı	1	T
suction dredgers							
(victualling, Petty cash							
& Fuel). ( <b>MCSPS</b> ( <b>II</b> ))							
<b>7.1</b> Purchase	4.25	T	1.70	40%	60%		
,Maintenance repaires		P	6.97	164%	170%		
& General Expences of							
Grab Hopper dredgers							
(victualling, Petty cash							
& Fuel). (MAHGM							
(II))							
<b>8.1</b> Dredging in all	6.5	T	2.60	40%	60%		
	0.3					-	
harbours (excavator		P	4.29	66%	80%		
fuel, vessel insuarance							
charges,etc)							
(MMDAH)							
<b>9.1</b> Purchase new becon	3.0	T	1.20	40%	60%		
lamps and repairs of		P	1.15	38%	40%		
beacon lamps & buoys							
at all harbours.							
(MMREW (II))							
<b>10.1</b> Rehabilitation of	2.5	T	1.0	40%	60%		
Fenders, Chain, D-		P	1.81	72%	75%		
Shackle, I Bolts, Tyres				, _ , ,			
for All Harbours.							
(MRFAH)							
11.1 Purchase of small	0.45	T	0.18	40%	60%		
scale workshop items &	0.43	P	0.16	81%	81%	-	
-		r	0.30	0170	01%		
other necessary							
equipments for all							
harbours. (MHPWS)	4.50	-	1.01	100/	500/		
<b>12.1</b> Rehabilitation of	4.53	T	1.81	40%	60%	_	
electrical works of all		P	5.71	126%	135%		
harbours (Ref &							
Electrical). (MMREW							
(I))							
<b>13.1</b> Purchase & Refill	0.85	T	0.34	40%	60%		
fire extingushers in all		P	0.24	28%	28%		
harbours (MSPFE)							
<b>14.1</b> Purchase of Fixed	0.30	T	0.12	40%	60%		
Assests in Head Office		P	0.81	271%	271%	1	
& All Harbours							
(Furnitures, Computers,							
Printers, etc)							
(MHPFA)							
<b>15.1</b> Repair &	3.9	T	1.56	40%	60%		
Maintanaces all light	3.7	P	3.25	83%	90%	1	
vehicles & Bus, Prime		1	5.45	0.5 /0	90 /0		
Mover, Bowser at							
Head Office							
(MHMLV)	1.50	(F)	0.62	4007	600/		
<b>16.1</b> Purchasing Tanks	1.58	T	0.63	40%	60%	4	
8000G-5000 G 01Nos		P	0.0	0%	0%		
Total	50	T	20.0	40%	60%		
		p	44.97	90%	48%		

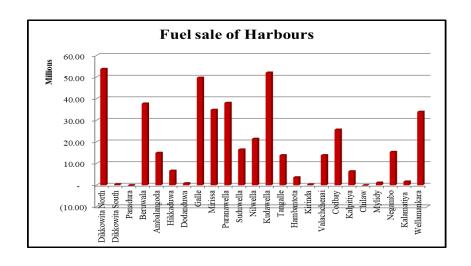
T = Target P= Progress

# Summery

	2023 YEAR	EXPENDITURE				
	Rs. Mn	1 st Quarter Rs.	2 nd Quarter	Up To		
			(Mn)	31.August		
				2023 (Mn)		
Civil	50	3,264,286.76	13,007,206.75	20,150,529.41		
Mechanical	50	3,224,085.10	25,743,027.99	44,866,056.84		
Bank Charges		370,136.00	462,354.00	1,335,897.00		
,Bank Commission						
& Bank Error						
Bid Bond		-	-	-		
Total	100	6,858,507.86	39,212,588.74	66,352,483.25		

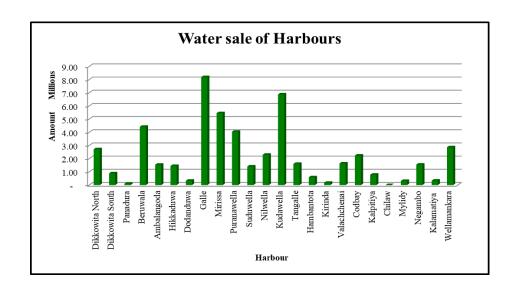
# **Fuel sale of Fishery Harbours - 2023 (up to August)**

Harbour	Fuel sale - up to August (Rs.)
Dikkowita North	53,824,048.96
Dikkowita South	406,668.02
Panadura	(383,823.20)
Beruwala	37,770,751.50
Ambalangoda	14,990,237.70
Hikkaduwa	6,726,813.31
Dodanduwa	901,637.48
Galle	49,767,802.93
Mirissa	34,902,545.21
Puranawella	38,109,239.74
Suduwella	16,535,041.36
Nilwella	21,479,490.51
Kudawella	52,139,039.01
Tangalle	13,879,116.02
Hambantota	3,670,396.92
Kirinda	325,523.07
Valachchenai	13,896,073.78
Codbay	25,740,871.59
Kalpitiya	6,479,648.14
Chilaw	(145,025.94)
Mylidy	1,219,690.32
Negambo	15,432,811.94
Kalamatiya	1,707,820.38
Wellamankara	33,995,831.16
TOTAL	443,372,249.91



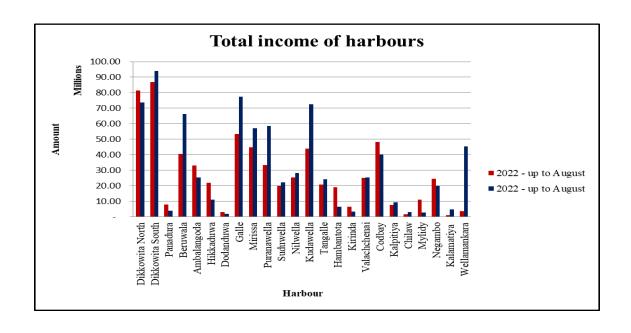
## Water sale of Fishery Harbours - 2023 (up to August)

Harbour	Water sale - up to August (Rs.)
Dikkowita North	2,724,480.00
Dikkowita South	891,500.00
Panadura	102,376.35
Beruwala	4,424,515.60
Ambalangoda	1,543,796.10
Hikkaduwa	1,454,630.00
Dodanduwa	330,800.00
Galle	8,193,660.20
Mirissa	5,456,297.39
Puranawella	4,048,846.00
Suduwella	1,413,062.00
Nilwella	2,300,148.00
Kudawella	6,882,406.80
Tangalle	1,606,330.20
Hambantota	593,217.36
Kirinda	178,149.00
Valachchenai	1,642,318.40
Codbay	2,240,937.50
Kalpitiya	786,599.06
Chilaw	_
Mylidy	318,746.50
Negambo	1,554,030.00
Kalamatiya	336,008.91
Wellamankara	2.872.065.00
TOTAL	51.894.902.37



## Accumulated Income of all harbours - 2022 & 2023 (up to August)

Harbour	2022 - up to August	2023 - up to August
Dikkowita North	81,377,775.73	73,598,230.75
Dikkowita South	86,867,643.73	94,104,889.04
Panadura	7,876,371.61	4,012,053.03
Beruwala	40,469,601.04	66,318,559.01
Ambalangoda	33,264,915.76	25,506,225.88
Hikkaduwa	21,983,012.97	11,180,395.11
Dodanduwa	3,240,834.57	1,877,062.98
Galle	53,328,947.11	77,473,608.61
Mirissa	44,887,924.12	57,215,969.71
Puranawella	33,540,522.64	58,556,693.01
Suduwella	19,937,978.94	22,259,489.12
Nilwella	25,448,940.38	28,380,918.51
Kudawella	43,966,006.89	72,655,072.48
Tangalle	20,747,040.02	24,362,974.28
Hambantota	19,131,922.03	6,616,001.45
Kirinda	6,638,381.99	3,284,908.57
Valachchenai	25,029,019.11	25,493,206.79
Codbay	48,130,818.62	40,255,386.41
Kalpitiya	7,643,402.48	9,297,747.91
Chilaw	1,737,269.51	3,200,833.73
Mylidy	11,099,311.50	2,692,336.82
Negambo	24,687,512.48	20,087,016.67
Kalamatiya	1,041,646.92	4,884,793.10
Wellamankara	3,670,670.48	45,503,477.26
TOTAL	665,747,470.63	778,817,850.24



## OPERATING RESULT AS AT August 2022 & 2023 (COMPARISON)

Harbour	2022 - up to	2023 - up to		
Harbour	August	August		
Dikkowita North	60,736,032.67	51,131,584.75		
Dikkowita South	69,777,155.11	73,657,422.93		
Panadura	(4,863,559.64)	(8,153,139.69)		
Beruwala	10,581,348.83	37,415,072.51		
Ambalangoda	18,514,996.84	11,916,860.35		
Hikkaduwa	3,842,424.99	(3,320,109.58)		
Dodanduwa	(8,201,601.82)	(10,013,936.10)		
Galle	25,763,523.28	48,980,536.01		
Mirissa	21,736,668.16	34,074,369.83		
Puranawella	3,900,034.08	29,352,057.76		
Suduwella	4,401,410.03	6,996,499.44		
Nilwella	10,182,302.86	14,692,943.01		
Kudawella	20,638,219.51	46,324,912.51		
Tangalle	(5,975,183.33)	(1,631,102.34)		
Hambantota	(1,781,009.52)	(12,468,391.04)		
Kirinda	(17,558,188.49)	(18,646,954.44)		
Valachchenai	(306,316.08)	329,433.21		
Codbay	13,010,857.18	6,727,957.00		
Kalpitiya	(1,587,408.55)	1,119,464.66		
Chilaw	(8,320,054.95)	(7,836,474.53)		
Mylidy	2,517,682.10	(5,854,074.33)		
Negambo	10,841,241.44	7,954,628.95		
Kalamatiya	(7,706,121.56)	(3,459,000.94)		
Wellamankara	3,039,446.67	35,321,667.75		
TOTAL	223,183,899.80	333,953,361.26		

# **Capacity of Ice Plants –2023**

Ice Plant	Fisheries harbor/ Landingsite	Production Capacity Mt /Days	Ice Cube / Ice sheets	Mobile Ice plant (Yes /No)	Present status
Kirinda	Kirinda	5	Cube	Yes	Active
Hambanthota	Hambanthota	20	Cube	No	Proposed
Tangalle	Tangalle	5	Cube	Yes	Not in Operation
Tangalle	Tangalle	5	Cube	Yes	Active
Kudawella	Kudawella	10	sheets	No	Active
Puranawella	Puranawella	35	Cube / sheets	No	Active
Puranawella	Puranawella	20	Cube	No	Proposed
Galle	Galle	5	sheets	No	Active
Galle	Galle	5	sheets	No	Active
Hikkaduwa	Hikkaduwa	20	Cube	No	Proposed
Dodanduwa	Dodanduw a	10	Cube	No	Proposed
Ambalangoda	Ambalango da	20	Cube	No	Active
Beruwala	Beruwala	7.5	Cube	No	Active
Beruwala	Beruwala	5	Cube	No	Active
Panadura	Panadura	5	sheets	No	Active
Negombo	Negombo	20	Cube	No	Active
Chilaw	Chilaw	20	Cube	No	Active
Kalpitiya	Kalpitiya	10	Cube	No	Proposed
Cod bay	Cod bay	20	Cube	No	Proposed
Cod bay	Cod bay	50	Cube	No	Active
Dikowita	Dikowita	20	Cube	No	Active
Walachchena	Walachche na	50	Cube	No	Active
Ice production c	apacity	367.5			

## Analysis of harbor anchorages facilities -2023

The number of multi-day fishing vessels registered with the Ceylon Fishery Harbours Corporation and operating in the year 2021 is 3921 and the number of fishing vessels operating which registered under fisheries harbors is about 3874.

This is a percentage of 98% and the fish production that we bring into the country through multi-day vessels through our harbors is 179173.4 metric tons. The fish harvest entering the country through this is 90472.8 metric tons.

The number of one day vessels operated by our harbors is 266 and it represents 33% of the total number of one day vessels. The fish harvest from this vessels account for 90472.8 Mt

Summary of fishing vessels registered under our fishing harbors

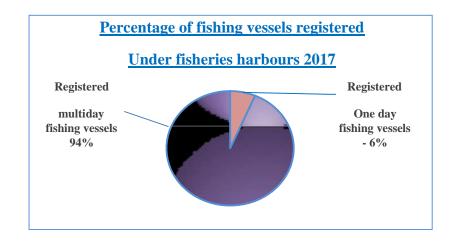
4	OFRPB (1) (17-23ft)	03
4	1 Day (3) (28-34ft)	263

## The total number of one-day fishing boats receiving port facilities - 266

## Multiday (IMUL)

feet 34 - 28 feet	332
feet 34 - feet 40	1,896
feet 40 - feet 50	1,612
feet 50 - feet 60	27
feet 60 and high	07

## Total Number of multiday boats with harbor facilities – 3874



## Overview of the harbor facilities

Harbour	Inception year	Area (Ha)	Harbour basin (Ha)	Length of the breakwaters (m)	Depth (m)
Kalpitiya	<mark>1968</mark>	0.49	2		2.5
Chilaw	2009	1			2.5
Mirissa	2007	0.42	2	456	3
Dikkowita	2013	8.1	11.7	1170	3.5-5.0
Modara	<mark>1965</mark>	0.92	2.3	140	4.0-5.0
Panadura	1998	2.13	2.7	270	2.5-3.0
Beruwala	<mark>1965</mark>	7.05	10	426	2.5-3.0
Ambalangoda	2010	1.74	6.4	375	3.5
Hikkaduwa	2001	2.94	6.3	325	2.5-3.0
Dodanduwa	2010	1.41		100	3
<b>Galle</b>	<mark>1965</mark>	1.5	4	235	3.0-6.0
Mirissa	<mark>1966</mark>	2.44	7.2	478	2.5-3.0
Puranawella	<mark>1980</mark>	4.96	14.2	400	2.5-3.0
Kudawella	1998	4.24	13.1	700	2.5-3.0
Tangalle	<mark>1965</mark>	1.45	2.5	221	2.5-3.0
Hambantota	2010	1.65	5.8	275	3.5
Kirinda	<mark>1985</mark>	3.5	3.6	450	2.5-3.0
Walachchenai	2011	1.71	3.7		3
Cod Bay	<mark>1965</mark>	9.23	20		6
Nilwella	2012	1	5	428	3

## Fisheries Harbours older than 20 years



# Mining vessels belonging to the CFHC











The discussion held on 03.08.2022 with the officials of Ceylon Fishery Harbour Corporation to immediately resolve the existing problems regarding the development of 07 fishing ports in the south (Kirinda, Hambanthota, Dodanduwa, Hikkaduwa, Peraliya, Ambalangoda, Panadura) and the services provided to fishermen through it.

# 06 Ceylon Fisheries Corporation (CFC)

## Vision

To be the Leading Commercial Organization, Guiding and promoting fish production and trade for the benefit of the Consumer and the Producer.

## **Mission**

- To be an effective organization to contribute more to the Gross National Product
- To be the most significant organization responsible for marketing of fisheries production, processing and marketing.
- To (harness) strengthen the economic activity of fishermen and to obtain greater (achievement) development of its production capacity
- Would engage in production and marketing, quality fish and value added products at a reasonable price, using modern technology

## **Present Status**

- The approved staff of Ceylon Fisheries Corporation is 724. Out of which 213 are working in the head office and 393 in district offices and 118 employees are working on daily basis. 26 of them are managers.
- There are 21 district offices and divisions related to the purchase and sale of fish in the Ceylon Fisheries Corporation and it has 08 purchase and sales offices and 04 purchase offices and 07 sales offices with 02 sales divisions in the head office. Ceylon Fisheries Corporation has 97 outlets across the island.
- At present, the total operational process (from January to August 2023) of Ceylon Fisheries Corporation reports Rs. 59.9 Mn. of loss.
- As of this August, sales executives at Gampaha, Metro, Kandy, Trincomalee, Matara, Anuradhapura, Kegalle, Ratnapura, Ampara, Anuradhapura Ice Plant, and Minneriya, Ambalangoda are running profitably. Other 08 district offices and divisions remain unprofitable.

## Island wide Sales Outlets owned by CFC

Pruchasing centers	<b>Marketing Centers</b>	Selling and purchasing centers
Trinco	Anuradhapuraya	Gampaha
Mannar	Rathnapuraya	Kaluthara
Puttalam	Kurunegala	Metro
Jaffna	Kandy	Galle
	Badulla	Hambanthota
	Kegalle	Tangalle
	Polonnaruwa	Digamadulla
	Jaffena	Matara

## **Ceylon Fisheries Corporation Outlet Expansion (2023)**

District		Outlets	
Wan la	1	No.02 Central Wholesale Market	
	2	No.03 Central Wholesale Market	
Kandy	3	Polgahamulla	
	4	Nawalapitiya	
Kegalle	1	Rambukkana	
	2	Warakapola	
	3	Mawanella	
	4	Galigamuwa	

	5	No.01		
	6	Aguruwella		
	7	Ruwanwella		
	1	Kataragama		
	2	Ambalanthota		
Hambanthota	3	Tangalle		
	4	Weerakatia		
	1	Hakmana		
	2	Kirinda		
	3	Kamburupitiya		
Mathara	4	Akuressa		
1,2002.00	5	Deiyandara		
	6	Matara		
	7	Pitabeddara		
	1	Avissawella		
	2	Yatiyanthota		
Rathnapura	3	Ehaliyagoda		
	4	Kuruvita		
	1	Nuwara Eliya		
Badulla	2	Nuwara Eliya Economic Centre		
	3	Diyatalawa		
	4	Hatton		
	5	Badulla		
	6	Bandarawela		
	1	Horana		
	2	Ingiriya		
	3	Matugama		
Kaluthara	4	Kalutara		
	5	Wadduwa		
	6	Nagoda		
	7	Bandaragama		
	1	Magalle		
	2	Galle		
G "	3	Karapitiya		
Galle	4	Labuduwa		
	5	Imaduwa		
	6	Alpitiya		
	1	Nugegoda		
	2	Narahenpita		
	3	Bokundara		
	4	Piliyandala		
	5	Hanwella		
Colombo	6	Bambalapitiya		
	7	Kalubowila		
	8	Aththidiya		
	9	Ethulu Kotte		
	4.0			
1	10	Kottawa		

	12	Gotatuwa
	13	Homagama
	14	Boralasgamuwa 1
	15	Peliyagoda
	1	Negombo
	2	Gampaha1
	3	Gampaha 02
	4	Ragama 02
	5	Wayangoda
	6	Welisara
	7	Kirindiwela
	8	Raddolugama
	9	Tiharia
	10	Pugoda
	11	Kadawatha
	12	Mirigama
	13	Nittambuwa
	14	Minuwangoda-02
Gampaha	15	Minuwangoda
	16	Kotadeniyawa
	17	Nathadiya
	18	Varagoda
	19	Delgoda
	20	Jaella 01
	21	Jaella 02
	22	Kadana
	23	Diulapitiya
	24	Naiwala
	25	Ragama 01
	26	Yakkala
	27	Ganemulla
	28	Sapugaskanda
	1	Giriulla
	2	Kuliyapitiya
17	3	Naramala
Kurunegala	4	Pannala
	5	No01
	6	Mawathagama
	1	Fishmela Anuradhapura
	2	New Town - Anuradhapura
Anuradhapura	3	New Bus Stand - Anuradhapura
	4	Market - Anuradhapura
Digamadulla	1	Ampara
Total Outlets		97

## 06 new stores have been opened in the following areas from January to August 2023.

- 1. Narahenpita Renewal and re open
- 2. Katharagama
- 3. Sapugaskanda
- 4. Kalubovila
- 5. Boralesgamuwa
- 6. Mathugama Renewal and re open

## Places expected to open new stores in future -

In this year, centering on Gampaha, Colombo and Kurunegala district offices, 03 Gampaha, 02 Colombo and 01 outlets in Kurunegala district are expected to be opened, out of which 50 Mt will be contributed to the current sales.

At present, the Fisheries Corporation (in general) process a monthly purchase of about 400 Mt of fish and through the outlets spread throughout the island a monthly sale of about 380 Mt is performed.

The Ceylon Fisheries Corporation is hoping to sell 500 Mt to reach the breakeven point by continuously reducing losses and the sales plan for that is as follows.

## The proposed marketing plan is to increase the current sales average from 400 Mt to 500 Mt.

## We hope to implement the following plan under this.

- 1. Start 25 new outlets in 2023.
- 2. Introduction of a system of payment through QR code while making payment for fish As a first step, two districts (Colombo and Beruwala) have alredy started implementing this.
- 3. It is planned to import and sell 04 containers of fish i.e. 108 metric tons directly from foreign suppliers. Development of a Business proposal and initial steps of procurement process for this have already begun.
- 4. It is proposed to repair and operate the 200 MT cold storage at the Head Office of Modara at the earliest. It is proposed that the fish will be purchased and stored at lowest price range during high available periods and sold at a higher profit during fish shortage periods.
- 5. It is proposed to implement a plan to provide fish on the basis of monthly wage recovery at subsidized prices to the staff of all government institutions with island wide operation.
- 6. A project has been proposed to provide fish to the armed forces and prisons.
- 7. It is proposed to open a Fisheries Corporation supermarket complex in The District of Colombo before the end of 2023.

## **Human resource -**

- After 2011, graduate managers have not been recruited to Ceylon Fisheries Corporation and the corporation should recruit at least 25 young managers with new ideas.
- Also, the human resources needed to expand the operational network should be recruited in order to develop the marketing activities by starting new stalls.

## **Other Plans**

- ❖ Under the project provided by JICA with the assistance of the government of Japan to improve the living standards of the fishermen of the North East, 07 refrigerated super-cold lorries and 20 cold storages will be provided to the fisheries corporation offices in the Northern and Eastern Provinces. Preliminary actions have been completed.
- ❖ The defunct Kokilai Fish Purchase Centre in Mullaitivu District has been renovated and opened. All arrangements have been made to set up and restart the Kokilai filling station at Singhapura, Pulmude to get the required fuel for the mullaitivu fishermen in the premises.
- \* Renovation of Fisheries Corporations tourist hotels with a view to increase income of Nuwara Eliya, Kalamatiya, Minneriya and Singhapura holiday resorts which are currently operating as tourist resorts. Preliminary work have been initiated to develop infrastructure facilities as per the guidelines of The Tourism Promotion Authority of Sri Lanka.

It is proposed to set up fisheries corporation fuel stations including vehicle servicing centres within the premises of Mannar District Office and Trincomalee District office.

## Opening of Narahenpitiya sales centre 2023







Commencement of payment system through QR Code



The opening of the latest branch of the Mega Store chain of modern stores established by the Ceylon Fishery Corporation all over the island with the aim of providing high service to the customer, on March 2, 2023 in Boralasgamuwa.

# 07 Ceynor Foundation Limited

## Vision

To be the best in boat building & providing maritime services

## Mission

To archive excellence with customer satisfaction through innovations in a sustainable environment

## **TARGETS**

- To become a recognized exporter of fiberglass boats
- To become an internationally renowned fiberglass boat manufacturer.
- To become an investor in the manufacture of fiberglass boats in foreign countries.
- Supply of high quality fishing boats and fiber products.
- Be an excellent customer service provider.

## **DUTIES & SERVICES**

- We are manufacturing and supplying Fiberglass fishing vessels, boats required by the local freshwater as well as freshwater fishing and other fiberglass related fishing gear.
- We are Providing maritime services and modern vessel production for the tourism industry
- We are focusing on the production of innovative & variety of fiberglass products.

## **SUMMARY OF THE ORDERS IN 2023**

NAME OF CUSTOMER	DESCRIPTION	QTY	VALUE (RS.)
NAME OF CUSTOMER DESCRIPTION		Total	Total
Sri Lanka Tourism and Hotel	Tanks repai	06	1,877,931.82
Institute			
Divisional Secretariat, Padaviya	18.5 canoes with Outriggers	06	1,877,931.82
Mr. Manjula, Pandura	Fish Display Pallets	12	1,080,213.12
Blue Resources Trust, Colombo	Fiberglass Ice Box	20	
	18.5 canoes	03	2,524,105.65
	10.5 Outriggers	03	
Mahaweli Authority , Colombo	Poly tunnels 17.4m x 10m x	50	91,576,148.40
	5.7m		
Blue Resources Trust, Colombo	Fiberglass Ice Box	08	1,590,491.52
	Fiberglass Kayak	05	1,390,491.32
Divisional Secretariat, Padaviya	18.5 canoes with Outriggers	10	1,547,500.00
Islamic Relief Sri Lanka,	15.5 ganges with Outriggers	09	1,104,371.19
Akkarapattu	15.5 canoes with Outriggers	09	1,104,3/1.19
Depatment of Disaster	Ferry	04	2,168,013.36
Management		04	2,100,013.30













## SPECIAL PROJECTS IMPLEMENTED IN 2023

- Production of poly tunnel to Mahawali Authority.
- Production of lottery booths for Development Lottery Board.
- Bulbous bow products to the Food and Agriculture Organization of the United Nations (FAO).
- Manufacture of Fish Aggregating Devices (FAD) for Department of Fisheries.





## PROJECTS BEING IN DISCUSSION IN THE YEAR 2023

- Manufacture of new vessels required for fisheries & tourism sectors and fiberglass items
- Commencement of the manufacturing activities in Karainagar dockyard under Indian aid











Launching of five year plans and website presented in conjunction with the fifty fifth anniversary of C-Nor Foundation Limited held at Foundation Institute on 08.05.2023.