PROGRESS REPORT 2022

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

Department of Fisheries & Aquatic Resources (DFAR)	**Desired objectives -** Management, Development and Conservation of Fisheries and Aquatic Resources of Sri Lanka **Responsibilities**- Introduction of the Fisheries and Aquatic Resources Act No*2*, *1996* and updating the fisheries management activities and legal provisions in compliance to the regional and international conventions and regulations.
National Aquatic Resources Research & Development Agency (NARA)	**Desired objectives** – To conduct researches on Aquatic resources and development, conservation and management of the same **Responsibilities**- 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
National Aquaculture Development Authority (NAQDA)	**Desired objectives -** Development and Management of culture – based inland fisheries and aquaculture **Responsibilities**- NAQDA having been established in terms of the National Aquaculture Development Authority Act No **53** of **1998**, is responsible for supply of fish seed in aquaculture and extension services for inland fisheries and aquaculture, shrimp culture monitoring and aquaculture training faculties
Ceylon Fishery Harbours Corporation (CFHC)	**Desired objectives** -Planning, construction and operation of Fishery harbors and Anchorages **Responsibilities**- 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 15 anchorages.
Ceylon Fisheries Corporation (CFC)	**Desired objectives** – Intervention in fish marketing providing the best advantage to both the supplier and the consumer **Responsibilities**- 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..
Cey-Nor Foundation	**Desired objectives**- Supply of fisheries inputs and gears **Responsibilities**- 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
Northsea Ltd	**Desired objectives**- Supplying adequate high grade fishing nets and other fishing gears **Responsibilities**- A fishing net manufacturing company incorporated under the Companies Act No. 17 of 1982 and re-registered under the New Companies Act No. 7 of 2007

01
Increased Contribution of the Fisheries Sector to the Development of the National Economy

Overall Progress of Fisheries Sector in 2022

Sri Lankan fisheries sector mainly consists of 517,000 km^2 sea area with abundant fish resource 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 fishing resources since the past, as well as the human resource that is composed of indirect employment related to it, 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 annually to raise the infrastructure necessary to bring Sri Lanka's fishing industry to a higher level and to increase the livelihood of the fishing community.

Eventhough, the economic depression caused by the covid epidemic situation and the increase in fuel prices have had a severe impact on the progress of the fishing industry, A fish harvest of 205,600 Mt. from marine fisheries and 85,400 Mt. from freshwater fisheries has been achieved during the period from January to September 2022. Accordingly, the total fish production in this period is 290,640 Mt.

Fish exports make a unique contribution to the growth of the national economy and foreign reserves and the total amount of fish products exported during the period from January to September 2022 is 19,402 Mt . Its value is Rs. 71,190 Mn. It is a growth of 2.3% over the export volume in the same period of 2021. This can be mentioned as a unique achievement in the fishing industry. Also, during the relevant period, through the export of ornamental fish, an income of Rs. 4,888.2 Mn..has been achieved. This can also be mentioned as a recorded export income over the previous years.

Fish consumption can be considered as the main source of protein to maintain the nutritional status of the public at a high level, and during the period of January to September 2022, per capita fish consumption is 31.3 grams per day. A gradual growth of this value is expected in the future through the measures taken now.

The National Aquaculture Development Authority has launched non-traditional fish farming projects such as sea cucumbers, seaweeds and modha fish farming projects throughout the year 2022 with the aim of providing the maximum contribution for increasing the local fish production, improving food security, improving the nutritional status, creating jobs and strengthening the rural economy.

By sustainably managing lagoon ecosystems, lagoon development programs are implemented to conserve lagoons as well as uplift the quality of life of the associated community, and by placing shrimp fry in a number of selected lagoons in Jaffna district, it has been possible to increase the contribution of those lagoons to earning foreign exchange.

The National Aquaculture Development Authority in collaboration with the National Aquatic Resources Development and Research Agency and the National Engineering Research and Development Center conducted the training to ensure the health safety of the mackerel and dried mackerel products in the local market. Those who have successfully completed the training have been given grants and encouraged to purchase new equipment.

This year, the National Aquatic Resources Development and Research Agency was able to publish field guidelines for fresh water fishes in Sri Lanka, which had been a long-standing need. This guidebook is a collaborative publication of the Department of Wildlife Conservation and the Nara Institute. This guidebook has been published to guide officials, law enforcement officers, fisheries management officers, conservationists, researchers, students, nature lovers and other interested persons regarding the management of marine and fish biodiversity in the island.

Overall, eventhough the country is facing a difficult period economically, the Ministry of Fisheries, together with the Department of Fisheries and the other institutions under it, has managed to sustainably maintain the fisheries and aquatic resources and bring the social and economic level of the fisheries community to an optimum level. It is expected that it will be possible to reach.

The discussion held on 01.06.2022 about the measures to be taken by the Ministry of Fisheries to overcome the economic challenge in the country

Discussion held at Ministry of Fisheries on 30.05.2022 to advise the scientists of NARA Institute to launch research on the possibility of harvesting fish resources by reducing the use of fuel.

The discussion held on 25.08.2022 at the Ministry of Fisheries with Japanese Ambassador Mr. Mishuko Shi Sideki to get Japan's support for the sustainable economic development of Sri Lanka

The discussion held on 31.07.2022 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.

Contribution to the Overall Fish Production

1.1 Increase of the Annual Fish Production

The total fish production of the country is 290,640 Mt from January to September in 2022. 37.7% of fish production from coastal fisheries and 33.1% from deep sea fisheries and 29.3% 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 96,080 Mt from Deep Sea fish production and 109,520 Mt from Coastal fish production could be obtained and the total marine fish production was 205,600 Mt.

1.3 Inland & Aquaculture Fish Production

During January to September 2022, the total inland fish & aquacultureproduction was 85,040 Mt and its contribution was 29.3% to the total fish production. The production through this sector could be increased specially despite under bad weather conditions.

In a meeting held at the Ministry on 22.04.2022 with a delegation of the main countries of France and Maldives on Food and Agriculture of the United Nations (FAO), steps were taken to generate more and more investments in the expansion of freshwater fish farming in ponds and cages by involving interested investors to popularize freshwater fish farming in the country. The Minister of Fisheries said that it will be taken

The total fish fingerling production was 111.32 Mn. by 30th Sep 2022 and 39.57 Mn. out of the above was produced at the NAQDA breeding centres and the balance was produced by community based fish seedling production units, private ponds , reservoirs using cage nets and cages.

The total shrimp and post larva production was 26.41 Mn. by 30th Sep 2022 and 24.50 Mn. out of the above was produced at the NAQDA breeding centres and the private sector has contributed to produce the balance .

Also, the private sector has produced 530.75 Mn. brackish shrimp larvae.

National Aquaculture Development Authority has launched a large number of nontraditional fish farming projects 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 2022.

Statistics for the Total Fish Production (2022 Jan – Sep)									
Fish Production (Mt.)									
Fishing Sub-Sector		2018	2019	2020	2021	2021 (Jan-Sep)	2022 (Jan-Sep)	Change in 2022 compared to 2021 (%)	Percentage share (%)
1	Off shore//Deep Sea	190,350	172,910	144,370	153,415	115,315	96,080	(16.7)	33.1
2	Coastal	249,020	242,580	182,560	178,260	129,600	109,520	(15.5)	37.7
	Total Marine	**439,370**	**415,490**	**326,930**	**331,675**	**244,915**	**205,600**	**(16.1)**	**70.7**
3	Inland Capture	71,020	73,230	84,310	80,720	60,640	67,410	11.2	23.2
4	Inland Culture	8,490	10,710	10,140	9,105	4,600	5,900	28.3	2.0
5	Shrimp Farms	8,180	6,400	7,360	14,410	11,420	11,730	2.7	4.0
	Total Inland	**87,690**	**90,340**	**101,810**	**104,235**	**76,660**	**85,040**	**10.9**	**29.3**
	Total Production	**527,060**	**505,830**	**428,740**	**435,910**	**321,575**	**290,640**	**9.6**	**100.0**

Source: Statistics Unit of MFADRD

Monthly Fish Production Statistics (2022 Jan – Sep)								
Fish Production by Sectors (Metric tons)								
	Marine Fish Production			Inland Fish Production				Total Catch
	Off Shore	Coastal and Lagoon	Total Marine	Capture	Aq. Culture	Shrimp Farms	Total Inland	
2022	**96,080**	**109,520**	**205,600**	**67,410**	**5,900**	**11,730**	**85,040**	**290,640**
Jan	11,020	18,810	29,830	5,305	180	1,555	7,040	36,870
Feb	10,420	18,010	28,430	5,215	265	790	6,270	34,700
March	12,360	16,130	28,490	5,965	345	885	7,195	35,685
Apr	13,710	13,360	27,070	6,530	200	1,280	8,010	35,080
May	10,640	10,800	21,440	7,145	280	1,760	9,185	30,625
June	9,830	6,890	16,720	8,175	530	1,650	10,355	27,075
July	8,250	6,230	14,480	8,900	1,060	1,680	11,640	26,120
Aug	9,160	7,730	16,890	9,960	1,995	1,280	13,205	30,095
Sep	10,670	11,210	21,880	10,220	1,035	885	12,140	34,020

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 2022 was 31.3 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. From January to September 2022, a quantity of 29,986.8 Mt has been imported as fish and fishery products amounting to a value of Rs. 16,336.2 Mn.

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

Item	2019	2020	2021	2020 (Jan-Sep)	2021 (Jan-Sep)	2022 (Jan - Sep)	Change % 2022/2020	Change % 2022/2021	Percentage to Total
Dried Fish	5,257	6,353	4,871	4,926.2	3,845.3	2,742.9	-44.3	-28.7	16.3
Dried Sprats	9,521	10,927	9,119	8,390.2	6,766.4	7227.1	-13.9	6.8	44.2
Maldive Fish	1,668	1,924	1,453	1,528.0	1,065.8	686.2	-55.1	-35.6	4.2
Caned Fish	13,651	10,764	4,891	9,486.7	3,509.7	2,156.1	-77.3	-38.6	13.2
Food Fish	7,411	4,659	3,401	3,869.6	2,582.0	1,632.8	-57.8	-36.8	10.0
Live Fish	288	175	253	138.6	167.2	309.7	123.5	85.3	1.9
Other	1,157	703	1,091	508.5	872.1	1,581.3	211.0	81.3	9.7
Total	**38,952**	**35,504**	**25,080**	**28,847.7**	**18,808.5**	**16,336.2**	**-43.4**	**-13.1**	**100.0**

Source: Statistics Unit of MFARD

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 25.07.2022 between the representatives of the Fish Exporters Association and the Minister of Fisheries regarding the problems currently faced by fish exporters

In the discussion held on 21.06.2022 with the shrimp farm owners and exporters of Puttalam district, Minister Douglas Devananda identified the problems faced by the exporters and growers in the current situation and took steps to solve those problems.

The discussion held on 28.03.2022 under the chairmanship of Mr. Douglas Devananda, the Minister of Fisheries, to investigate the possibility of providing sea cucumber chicks to those plantations and the measures to be taken in this regard, as the cultivation of sea urchins is increasing rapidly across the country..

Table 1.6.1 : Value of fish and fish products exported

Export quantity and value of fish and fish products

Item	Export Quantity (Mt..)		Export Value (Rs Mn.)	
	2021	2022 Jan-Sep	2021	2022 Jan-Sep
Live fish	na	na	4,193	4,888.2
Prawns	4,747	4,652.7	8,462	10,960.2
Lobster	196	65.9	879	505.6
crabs	1,662	1,267.5	6,113	5,426.6
Sea Cucumber	336	263.1	1,967	2,527.8
Other Mollusca	2,168	1,308.7	2,228	2,241.3
Shark	95	52.5	680	522.5
Shark Maws	4	4.3	76	108.4
Oysters & shells	306	220.3	201	175.9
Processed fish	16,130	11,220.8	37,198	42,804.6
Other	1,105	346.1	1,224	1,028.7
Grand Total	**26,749**	**19,402.0**	**63,224**	**71,189.7**

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.

A number of small and medium scale farmers are engaged in ornamental fish industry in the Polonnaruwa district. Also, the National Aquaculture Development Authority has taken steps to invite Expression of Interest (EOI) for the construction and management of an ornamental fish hatchery at Sevanapitiya in Polonnaruwa district. Rs. 4,888.2 Mn could be earned through Ornamental fish exports during the period of January to September 2022.

Ornamental Fish Breeding Center - National Aquaculture Development Authority

Ornamental fisheries

1.8. Cultivation of Ornamental Aquatic Plants

The Aquaculture Development Authority has taken steps to carry out seaweed cultivation in the seas of the North and North-West Provinces with community participation. A yield of 65 Mt. has been obtained from January to September 2022

Ornamental Aquatic Plants Cultivation Centers

Progress of the Project Implemented Under the Ministry of Fisheries

Rs 2000 Million (Budget subject 151-2-3-78- 2506) have been allocated for the year 2022 on behalf of the infrastructure facilities Development of the fisheries sector in this regard. The Development of fisheries and Aquatic Resources, National Aquaculture Development Authority, national Aquatic Resources Research and Development Agency (NARA) and Ceylon fisheries Harbour corporation (CFHC) have implemented programmes using these provisions and the financial progress along with bills in hand Rs. 1285.8 million and the physical progress is 58.3%. Rs. 1,000 million (budgect subject 157-2-3-79-2506) has been allocated through the budget speech in the year 2022. Further, increasing fish production in order to ensure livelihood development and food safety, minimizing of post harvest losses, development and construction post harvest losses, development of direct and indirect livelihood development. Rs.510 million has been allocated for the development projects implemented by the development division and the financial progress of the same with hand in bill amount is Rs. 386.1 and the physical progress is 46.2%.

1. **Lagoon Conservation and Development**

Lagoon development and conservation project commenced in the year 2018 with a view to enhance fisheries and aquaculture production to be increased which as the principal stratergy through environmental conservation and development of lagoon and aquatic environments suburbs to inland reservoirs.

Cleaning of lagoons and increasing natural fish population in lagoons through deepening of canals enabling proper water exchange in the lagoons, development of aquaculture, development of infrastructure facilities which is targeted of minimizing post harvest losses, marking the lagoon boundaries which helps towards conservation whilst preventing illegal catch and earth fillings, livelihood development , conservation of mangroves, removal of restricted gears and strengthening of lagoon management and increasing of fish production through depositing fish fingerlings are the main objectives of this project. Further, it is also expected to achieve the targets as creating new job opportunities, expansion of tourism industry through this project.

1.I Master Plans for II Lagoons

The whole objective is to formulate Master Plans for Negombo, Puttalam, Chilaw, Mundala, Koggala, Rekawa, Panama, Arugambay, Jaffna, Uppuaru and Thondamanaru lagoons under 5 clusters in order to sustainable use and development of resources under blue-green economic concept. 03 Advisory institutes were selected to prepare master plans for 10 lagoons under cluster A,B,C and D under this programme. Due to the non participation of an advisory committee to prepare plans for Negombo lagoon, it was postponed.

This project was implemented jointly through the Department of Fisheries and Aquatic Resources, National Aquaculture Development Authority, National Aquatic Resources, Research and Development Agency, Ceylon Fisheries Harbors Corporation along with the coordination of other state institutes. Preliminary reports, master plan draft and final master plan have been completed under the first stage and submission of descriptive plans, BOQ (Bill of Quantities) and environmental study report are the tasks carry out by the advisory companies under the stages left. The descriptive development plan of cluster B has been handed over and the relevant tasks have been completed and the final bill relevant to the duster has been certified. The descriptive development plan for cluster D has been handed over by the relevant institutes.

1.2 Deepening and Cleaning of Lagoons

The main project under this scheme was deepening and cleaning of Arugambay lagoon. Rs 100 million has been allocated in this regard and in terms of the instructions of national budget circular No. 03/2022 dated 26.04.2022 the procurement activities with regard to removal of sediment has been postponed up to January 2023.

The preliminary environmental study activities are being carried out by NARA and Rs 1 millions has been allocated in this regard. A soil test relevant to deepening and cleaning of Arugambay lagoon is being carried out in liaison with the advisory company and the contract company. The advisory company is being engaged with the preparation of the descriptive plan related to removal of sedimen in this lagoon.

Nandikadal, Nayaru, Kokilai and Lanka Patuna lagoons have been included in this programme and the environmental study with regard to Nandikadal lagoon have been completed by NARA and it has been submitted for the approval of the Department of Wildlife Conservation. Further the quantitative surver of the lanka Patuna lagoon has been completed by NARA. Preparation of Descriptive plans, BOQS and Bidding documents and carrying out environmental studies with regards to these two lagoons have been planned to be completed in the year 2023.

1.3 Increasing of the fish production related to lagoons

This project is scheduled to be implemented related to Mundal, Thondamanaru, Rekawa, Panama and Garaduwa lagoons. Rs 15 millions has been allocated in this regard and the Department of Fisheries and Aquatic Rescurces along with National Aquaculture Development Authority (NAQDA) implement the project within this year. NAQDA has prepared the stocking plan to deposit fish fingerlings in lagoons. Further, NAQDA has commenced the required activities for prawn breedings after obtaining brood stock for brackish waterr prawn breeding.

1.4 Marking of the lagoon Boundaries

Rakawa, Lanka Patuna, Kokilai, Mundalama, Arugambey, Chilaw, Puttalam, Nayaru and Nandikadal lagoons have been selected for the purpose of the determination of boundaries of the said lagoons within this year. The Department of Fisheries and Aquatic Resources is planning to establish 4,559 boundry post using the provisions amounting to Rs.5,014,900 and 238 boundary posts have already been established. The Ministry of Fisheries together with the Department of Fisheries will implement this project within the year 2022.

1.5 Infrastructure facilities and livelihood development.

Steps have been taken to pay Rs. 19.66 million as bills in hand for the District Secretariat of Jaffna for the infrastructure development project under lagoon conservation and development project in the year 2021 and Rs. 4.3 million as bills in hand for provision of dry fish production equipment for fisher women under the empowerment of 250 fisher women societies launched by the Department of Fisheries in the year 2021. Further, the Ministry has paid Rs.1.5 Mn. administrative expenses for Agricultural Insurance Fund in 2020, pertaining to establishment of Fisheries Pension Scheme.

2. <u>Project to develop a vessel with new technology to minimize post-harvest Losses</u>

Even though, a joint project was scheduled to be carried out by the Ministery of Fisheries and the Department of Fisheries to manufacture a vessel with new technology in order to minimize post-harvest losses and the relevant procurement activities were being carried out, the project activities had to postponed under the instructions of the national budget circular No.03/2022 dated 26.04.2022 issued under the caption of “controlling public expenditure”.

The provisions allocated to this project has been allocated to VMS unit fixing project which is required to obtain high sea licence to vessels having been informed the National Budget Department. Accordingly, The Department of Fisheries & Aquatic Resources has taken steps to fix around 4,200 VMS units in vessels and around 410 VMS units at a cost of Rs. 4.7 Mn. has already been fixed in vessels.

3. Livelihood Development Project (suburbs to lagoon and beach)

National Aquaculture Development Authority implements following 04 projects with a view to develop livelihood of fisher community for the year 2022 and Rs. 95 Mn. has been allocated in this regard.

Sea Cucumber Farming Project - The premium amounts relevant to 40 benefisheries have been released relevant to sea cucumber farming project and the required steps are being taken to pay the first premium for 35 benefisheries under the same project.

Modha (Barramundi) Fish Farming Project - This project is scheduled to be implemented within the Northern Province and the activities related to selecting a suitable investor is being carried out.

Sea Weed Farming Project -New benefisheries are being selected under this project.

Construction of Sea cucumber breeding Centre in Oleithuduwai - Eventhough the preparation of relevant estimates and calling of bids have been completed relevant to the construction of sea cucumber breeding centre in Oleithuduwai, the implementation of this project had to be postponed as per the instructions of the national budget circular No.03/2022 dated 26.04.2022 issued under the caption of "controlling public expenditure".

4. **Provision of infrastructure facilities to small scale fish unloading locations to decrease post harvest losses in order to achieve livelihood development.**

The main objective of this project was to uplift the living condition of the fisher communities through decreasing of post-harvest losses and it was expected to archive this objective through developing of infrastructure facilities in landing sites. Accordingly, an expedite rural survey was conducted covering 14 landing sites in total to find out the development requirement relevant to each landing sites.

In order to obtain relevant recommendations to implement these development projects the said proposals have been referred to the Coast Conservation Department and National Aquatic Resources and Research and Development Agency (NARA). The Department of Coast Conservation apart from all projects has delivered its recommendation for the development projects submitted for Kalmunai, Batticaloa, Tangalle, Chilaw and Puttalam district to the Ministry.

Even though the Engineer was preparing plans and estimates relevant to development requirements, the implementation of this project had to be postponed as per the instructions of the national budget

circular No. 03 of 2022 dated 26.04.2022 issued under the caption of "controlling public expenditure".

5. Development of Negombo Lagoon

1. Description of the Project

This project is implemented under 3 stages 07 packages are active under stage I. The total cost for 07 packages in stage I is Rs. 1000 Million.

1. Package I – lagoon Development in Lelama area

   The dredging of the basin commenced on 14.05.2016 under package I in Lellama site and the project ended on 14.02.2017

2. Package II – Lagoon Development near Court Complex

   The dredging of the lagoon near court complex began on 01.08.2017 under package II and the project ended on 14.02.2017.

3. Package III - Development of lagoons in Queen's Road area

   Package III - The dredging of the lagoon near Queens Road commenced on 20.07.2018 under package III and the physical progress of the project is around 50%.

   a). Reasons for the delay

   A case has been filed under section 20 (1) of the wild life protection ordinance citing that a damage has caused to mangrove environment due to the deposition of sediment removed from the lagoon in the project boundaried until they are dried when implementing the 3rd stage of the project.

4. **Package IV – Lagoon Development in Lellama area.**

   The dredging of the basin commenced on 26.03.2015 under package IV in Lellama site and the physical progress of the lagoon at the moment is 100%.

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

265m long and 15m width jetty is being constructed under package V. Bidding document is being prepared for calling of bids at the moment.

b). Package VI – Construction of the Jetty near court complex

145m long and 15m width Jetty is being constructed under package VI. The preparations of the plans have been completed by now and the bidding document is being prepared for calling of bids. Procurement activities are scheduled to be carried out to select a contractor.

6. Construction of Wellamankara Fishery Harbour

1. Description of the project

This project is ended on 15th March 2022 and it consists following items.

- Brerak water – (567m)
- Construction of the Groyne –(125m)
- Construction of the Stage -350m
- Shore facilities – fish auction hall, net mending hall, restaurants, sanitory facilities, auction hall, shopping building, staff hostel, office, accommodation facilities and drinking water tanks for fisheries inspector and Coast guards

2. Commencement of the Project :- 25.06.2018
3. Project Value :- Rs. 2,498 Mn.
4. Financial Progress of the Project

Year	Financial Provision Rs. Mn.	Expenditure Rs. Mn	Note
2018	500	342.95	
2019	800	638.9	
2020	719.8	709.13	
2021	605	512.6	
2022	161	97.84 As at 20.09.2022	Bills in hand as at 31.08.2022 Rs. 27.8Mn
Total	2,785.8	2,301.42	

5. <u>Physical Progress</u>

The construction works of the Wellamankara Fishery Harbour was completed 15.03.2022 and it had been handed over to Ceylon Fishery Harbour Corporation on 18.06.2022.

7. Construction of the Gandara Fishery Harbour

1. Description of the project
   Following items are being constructed through this project.
   Construction of the breakwater –(257m)
   Construction of the stage –(125.63m, 221.12 and 127)

   Shore facilities

   Fish Auction hall, net mending hall, restaurants, sanitary facilities, shopping building , staff hostel, office, fisheries inspector and coast guard unit, accommodation facilities, pumping station, garbage, collecting location, wheing location, provision of fuel and the construction of water tanks are being carried out.

2. Commencement of the Project :- 07.12.2020
3. Completion date :- 06.12.2023
4. Project Value :- Rs. 9,360 Mn
5. Financial Progress of the Project

Year	Financial Provision Rs. Mn..	Expenditure Rs. Mn.	Note
2020	408	202.48	
2021	1,710	1,598.18	
2022	1,600	195.92	Bills in hand as at 31.08.2022 Rs. 1,127Mn
Total	3,718	1,996.58	

6. Physical Progress

Based upon the instructions issued under national budget circular No. 03 of 2022 dated 26.04.2022 captioned "controlling of public expenditure" with regards to implementation of the projects, it was decided to continue with the ocean beased construction only apart from the other works of the project and the construction works of the building were decided to be halted. The project programme re adjusted accordingly.

The expected physical progress of Gandara fishery harbour construction project was 65% and the actual physical progress is 56%.

Project name & items	Expected progress(%)	Achieved Progress
Gandara fishery harbour	**65**	**56**
Basic Activities	100	100
Construction of Breakwater	92	84
Deepening the Basine	68	28
Preperation of free blocks	100	99
Platform construction	34	26
Construction of Buildings	0	1
External construction works	0	0
Provisional sums	0	0
Acquisition of lands and Resettlement	40	40

8. Construction of Balapitiya Fishery Harbour

1. Description of the project

Following items are being constructed through this project.

- Construction of the breakwater – 418m
- Construction of the breakwater (North) – 125m
- Construction of the stage – 125m

Shore facilities- fish auction hall, net mending hall, restaurants, sanitary facilities, auction hall, shopping building, staff hostel office, accommodation facilities and water tanks are being constructed for fisheries inspecter and coast guard unit,

2. Project Value:- Rs. 1,200
3. Progress: procurement activities are scheduled to be commenced offer receiving approval for environmental effect report.

9 Construction of the Mawella Anchorage

1 Description of the project:- construction of 260m long break water and construction of two break waters suburbs to sea shore

2 commencement of the project:- 20.10.2020

3 completion date (expected):- 31.10.2022

4 project value :- RS.379.8 Mn.

5 Financial progress of the project

Year	Financial Previsions Rs.mn.	Expenditure Rs.Mn	Note
2020	80.5	30.1	
2021	150	145.14	
2022	161.08	50.47 Bill as at 20.09.2022	Bills in hand as at 31.08.2022 Rs. 22.65 Mn.
Total	391.58	225.71	

6. Physical Progress

Breakwater construction physical progress of Mawella anchorage construction project is 85%.

10 <u>Construction of Kalamatiya Fishery Harbor</u>

The construction of Kalamatiya Fishery Harbor commenced on 14.07.2022 and the physical progress of that project is 100% by now. The Basic value of the project is amounting to Rs. 1,280.79 Mn.

Some construction which are not in the original contract have been carried out as they are required for operational activities. The harbour has been handed over to Ceylon Fishery Harbor Corporation for operation on 18.06.2022.

11 <u>Construction of Rekawa Fishery Harbor</u>

1 Description of the project

Construction of 300m long Breakwater and groyne

2 Commencement of the project 20.10.2020

3.Completion of the project (Expected) :- 31.12.2022

4. Project Value:- Rs. 490 Mn. (ammended)

5. Financial Progress of the project

Year	Financial Provision Rs. Mn	Expenditure Rs.Mn	Note
2020	81.5	65.42	
2021	215	198.73	
2022	130	20.74 (As at 2022.09.20)	Bills in hand as at 31.08.2022 Rs. 27.64 Mn
Total	426.5	284.89	

6 Physical Progress

The physical progress of Rekawa Anchorage construction project is 96% as at 20.09.2022.

12. Oluvil Fishery Harbour

According to the Cabinet Memorandum No. AMP/21/1574/311/023 dated 23.08.2021 and the decision dated 22.09.2021, the fishing infrastructure of Oluvil Port under the Port Authority has been transferred to the Ministry of Fisheries. In accordance with the government policy, without incurring any cost to the government, suitable investors have been selected for the development of the infrastructure in this fishing port premises and the operations have been resumed.

Accordingly, according to the decision dated 2022.03.10 No. AMA/22/0224/311/003 given in the Cabinet Memorandum dated 10.02.2022, the operation of the fish processing unit has been assigned to the TESS private company on lease basis. The company has repaired and restored the infrastructure including the cold storage complex and the ice plant which had been inactive for over 12 years. Also, the company has now taken steps to install the necessary machinery for the fish canning industry in that premises. With this, the Ministry expects that after the commencement of the port operations, the fishery products will get a highly competitive price and by sending those products directly for export, the country will also have opportunities to earn foreign exchange. The Ministry has focused on establishing a community-participatory port management mechanism to carry out port maintenance and operations without incurring any cost to the government. To that end, Ampara Deep Sea Mechanized Vessel Owners' Fishermen's Cooperative Society has submitted a proposal expressing its willingness to manage and maintain the maintenance and operations of the Oluvil Fishery Port, and related future activities are currently underway.

It is the Ministry's hope to develop the Oluvil Fishery Harbour to benefit the local fishermen and the national economy.

The discussion held at the Ministry of Fisheries on 09.08.2022 to speed up the development of Oluwil Fishing Harbour.

The mobile service held at the Beruwala Divisional Secretariat on 11-11-2022 under the chairmanship of Mr. Piyal Nishantha, Minister of State, in conjunction with "Dala Rala Saviya World Fisheries Day 2022"

Projects Proposed to be Implemented by the Ministry in the Coming

1. Sustainable Provincial Fishery Development Project.

The estimated value for the development activities in the Northern Province under the aid of Asian development bank is 178 Mm. Dollars.

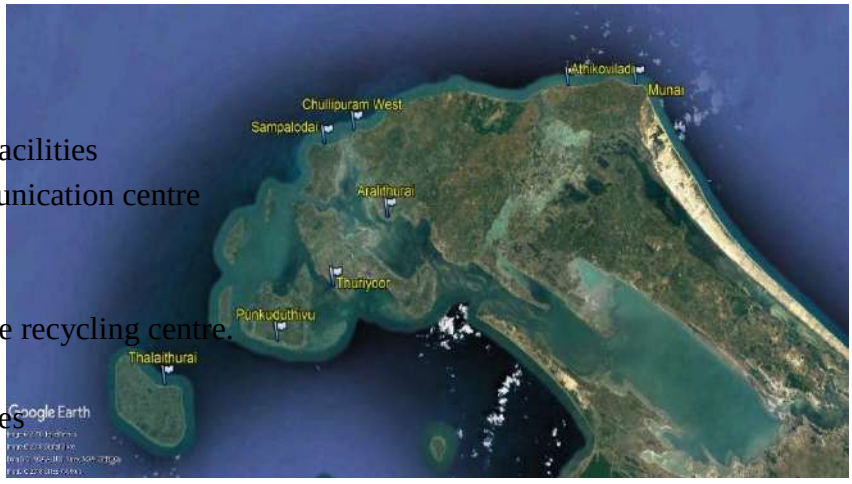
1.1 Construction of Fishery Harbours, Anchorages and Landing sites.

1.1.1 Jaffna District - Point-Pedro Fishery Harbour

Accordingly following development activities are taken place in Jaffna District.

This is the largest fishery harbour ever built by Sri Lanka. The total investment for the fishery harbours is Rs. 12,600 Mn. This fishery harbour consists with modern facilities

- Harbour basin - 18.6 hq
- Land area of the harbour – 6.1 hq
- Stage of the harbour – The harbour consist with two stages. First stage is 201m.
- Net mending hall
- Fish Auction hall
- Provision of coldroom facilities
- Establishment of communication centre
- Toilet facilities
- Restaurant facilities
- Establishment of garbase recycling centre.
- 02 service Jetty
- Provision of fuel facilities
- Hostel facilities



Construction of Anchorages

- Mandathiv Anchorages

Safety Anchorage

- Munai safety Anchorages
- Kalathurai safety Anchorage
- Athikoviladi safety Anchorage

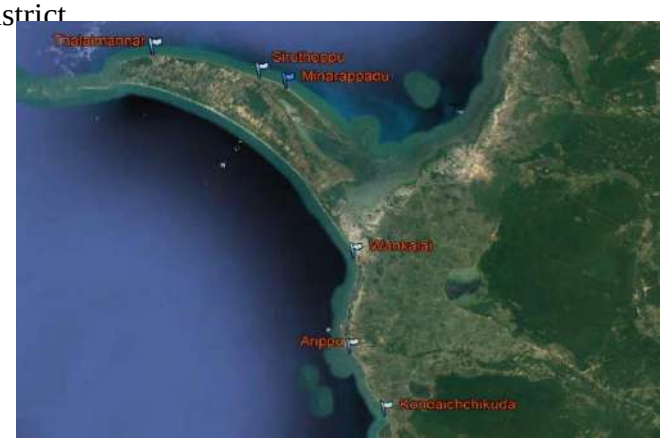
Fishing Anchorages

- Sampoladi
- Chullipuram West
- Aralithurai
- Thuraiycar
- Punkuduthivu

1.1.2 Mannar District

06 landing site will be developed in Mannar district

1. Thalaimannar landing site
2. Sirithoppu landing site
3. Minarappadu landing site
4. Wankalai landing site
5. Arippu landing site
6. Kondachchikadi landing site



1.1.3 Mulaithiu District

06 Landing sites are being developed

1. Iranaipalai Landing site
2. Kallappadu North landing site
3. Kallappadu South landing site
4. Theethakarai landing site
5. Silawathai landing site
6. Kokilai landing site

1.1.4 Killinochchi District

03 Landing sites are being developed within this district

1. Pallikuda Landing site
2. Valaipadu Landing site
3. Nachchikuda Landing site

1.2 Aquaculture Development

The acuaculture development projects proposed to be implemented in the Northern Province under the aid of Asian Development Bank.

Jaffna District - Chullipuram – Seaweed Tissue Implantation Centre.

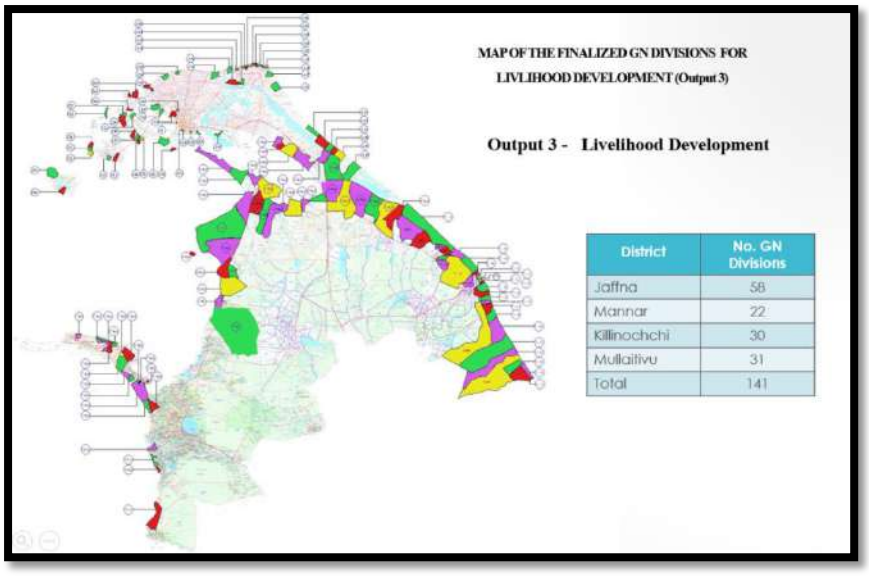
Mannar District - Southbar – Acuaculture Development Training Centre

Kondachchikuda – Mud crab breeding centre

Mulaithivu District - Walayanadam – Sea cucumber breeding centre

1.3 Livelihood Development

Further, livelihood development projects to be implemented based upon 141 Grama Niladhari divisions in the Northern Province.

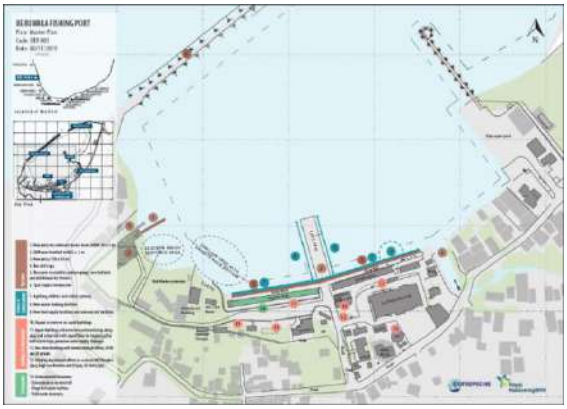


2. Fisheries Development Project under French Development Assistance

The estimated amount for the development of Beruwala, Galle, Puranawella and Kudawella fishery harbours under AFD fishery development project is 100 Mn Euros.

2.1 Beruwala Fishery Harbour Development

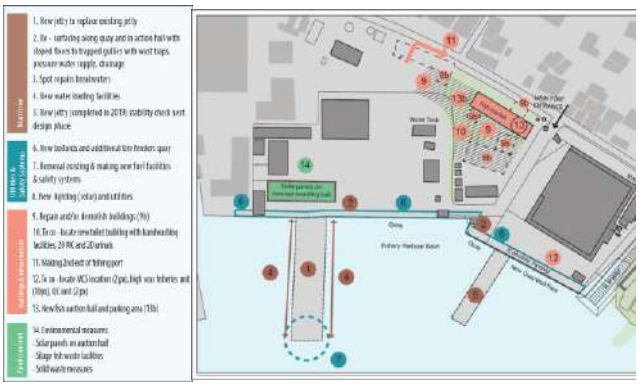
Current Status of Beruwala fishery harbour



Proposed development plan

2.2 Galle Fishery Harbour Development

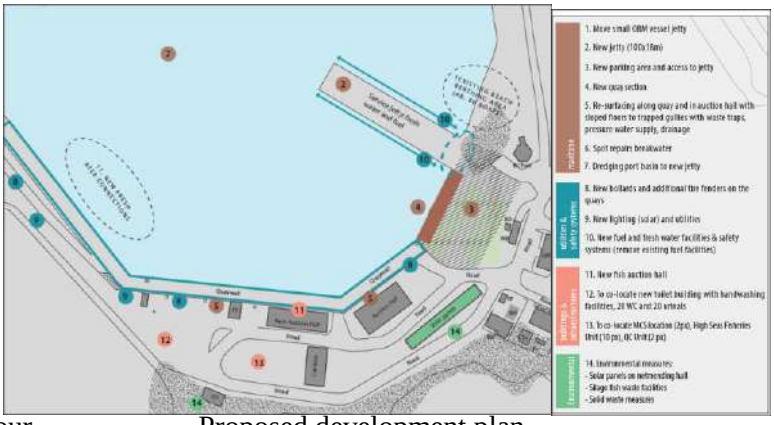
Current Status of Galle fishery harbour



Proposed development plan.

2.3 Puranawella Fishery Harbour Development

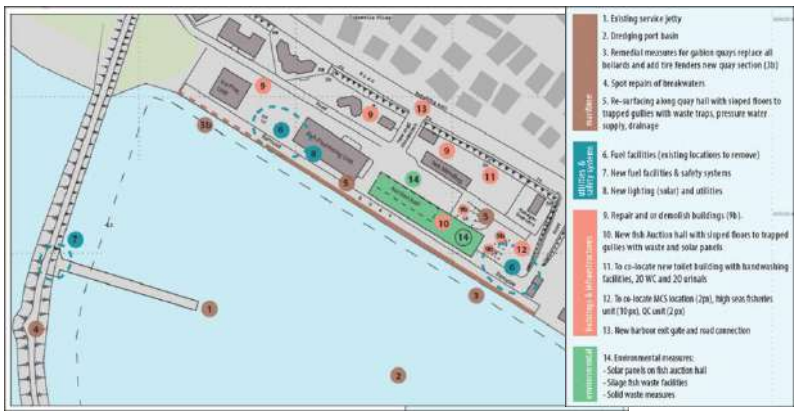
Current Status of Puranawella fishery harbour



Proposed development plan

2.4 Kudawella Fishery Hharbor Development

Current Status of Kudawella fishery harbour



Proposed development plan.

- Physical Progress

Environmental impact report and social impact report are in the final stage.

The mobile service held at the Beruwala Divisional Secretariat on 11-11-2022 under the chairmanship of Mr. Piyal Nishantha, Minister of State, in conjunction with "Dala Rala Saviya World Fisheries Day 2022"

Information with regard to projects implemented under Foreign Aids

1. **Obtaining Advisory services and analysis (Technical assistance) in order to give priority to joint fisheries and coastal area management in Sri Lanka.**

   The objective of this project is to carry out followings studies on behalf of formulations strategies to solve issues related to over exploitation of fish harvest in marine and aquaculture sectors without using sustainable means which was implemented with an investment of Rs. 130 Mn. by the World Bank and to solve fishery management issues.

   i. Aquaculture investment
   ii. Financial and biological analysis on multiday fishery activities.
   iii. Providing technical assistance to assess smaller sized marine fish stocks to NARA and the department of fisheries.
   iv. Providing technical assistance to assess lobster stocks to NARA and the department of fisheries.
   v. Creation of Bio economic modeling for marine fishery management in Sri Lanka.

   The report with regard to above studies was published on 03 day of March 2021

2. **The Memorandum of Understanding between the Government of Sri Lanka and the Government of India**

   The Memorandum of Understanding between the Government of Sri Lanka and the Government of India was signed on 28.03.2022 for cooperation in port development in Sri Lanka. The Government of India is hereby providing support for the development of fishing ports at Point Pedro, Pesale, Gurunagar, Balapitiya and other mutually agreeable locations in Sri Lanka.

   As per the agreement, a joint working group consisting of government officials has been appointed to monitor the project.

Other Activities Being Implemented

1. **Pay compensation for the damage caused to the fisheries sector for losing their live hood due to submerged Xpress pearl ship.**

   A massive damage had been caused to the marine environment of the western coastal belt in Sri Lanka due to the leakage of oil, chemicals and emission of plastic which contained in the containers of the Xpress pearl ship which destroyed due to the fire. The government immediately took measures to impose a no fishing Zone in order to ensure the safety of fishermen, fishing sears and vessels from Kaluthara to Negambo due to this environmental hazard. Measures were taken to pay a compensation for fishermen whose live hood lost whilst engaging in fishing directly or indirectly due to the imposition of this no fishing zone.

   The relevant fishing company has taken measures to pay compensation in 3 interim rounds and Rs. 616 Mn. has been distributed among fishermen received under 1st and 2nd rounds. Rs. 911 Mn. has been received to the general treasury under 3rd round and steps are being taken to distribute the same among the fishing communities.

2. **Increasing of local canned fish production**

   Sri Lanka spends a huge amount of its foreign exchange annually to import fish related products as canned fish, dried fish, sprats and maldives fish. Rs. 71,866 Mn. had been spent to import these fish related products in the year 2019 and about 51% which is amounting to Rs. 36,806 Mn. had been spent to import canned fish alone.

   A policy decision has been taken to simplify the fish import methods which are needed but not available in Sri Lanka in order to improve the canned fish industry. Accordingly, local canned fish factories have been allowed to import raw materials which are not available or insufficient under concessionary tax rates whilst expanding the facilities for imports. Currently, ten canned fish factories issue canned fish for local market. Therefore, import expenditure spent in the year 2021 has been dropped by Rs. 8,760 million in comparison to the year 2019.

The discussion held on 08.02.2022 between the representatives of the Canned Fish Producers Association of Sri Lanka and the Minister of Fisheries regarding the problems faced by canned fish producers

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 of fisheries and aquatic resources.

Mission

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

Purpose

- Management, regularization, conservation and sustainable development of fisheries in accordance with local and international maritime laws and conventions.
- Encourage 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 safety of exporting fish products in accordance with international standards.
- Minimizing post-harvest losses and improving the quality of local fish products.

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 Regulations, Aquaculture Management Regulations.
- Registration of fishing vessels and issuance of fishing operation licences.
- Issue of permits for the export of live fish.
- Issuing 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 arrested by foreign countries.
- Repatriation of fishermen and fishing boats stranded at sea.
- Quality inspection of exporting 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 the 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.

2. Progress of the Development Programmes -2022

1. Development Division

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

1.1 Basic role of the Development Division

- Registration, regulation and supervision of boat building institutions
- Granting approvals for boat designs.
- Registration, regulation and supervision of fishing gear suppliers.
- Registration of fishermen and fisheries organizations.
- Introduction and promotion of new technological methods to the fisheries industry.
- Providing technical evaluation reports/recommendations to the Environmental Impact Assessments (EIA) in order to the constructions/ projects in coastal areas.
- Improvement of infrastructure facilities in fisheries sector.
- Implementation of alternative income generating activities
- Implementation of fisheries subsidy schemes.
- Fisheries loan schemes.
- Social security of fishermen by implementing fishermen's insurance and pension schemes.
- Coordination of rescue operations and relief activities during the disasters
- Implementation of lagoon development projects.

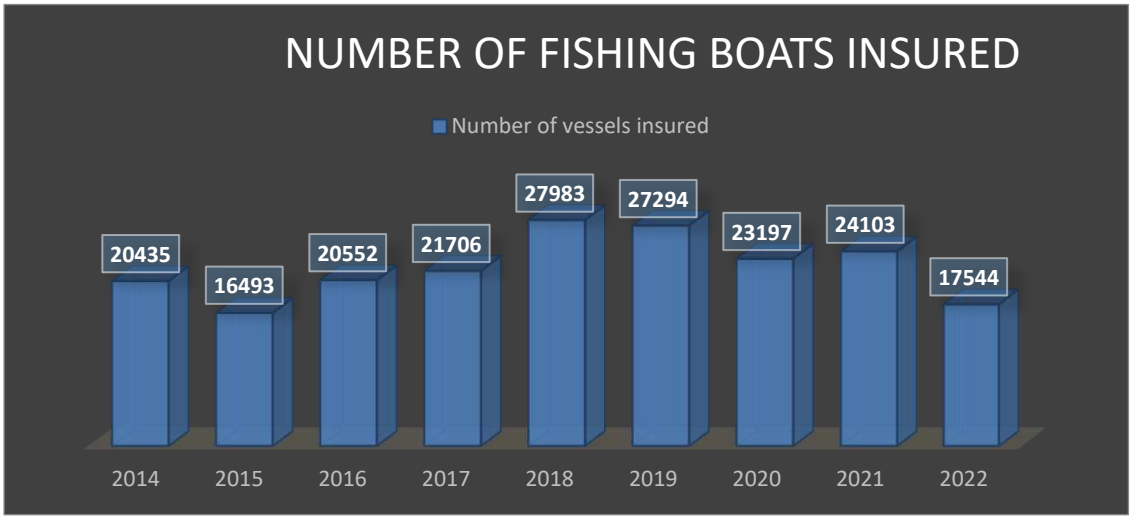
Similarly, preparation of annual action plan, conducting progress review by means of coordinating all the district offices and coordination of special fishing issues are performed by the development division.

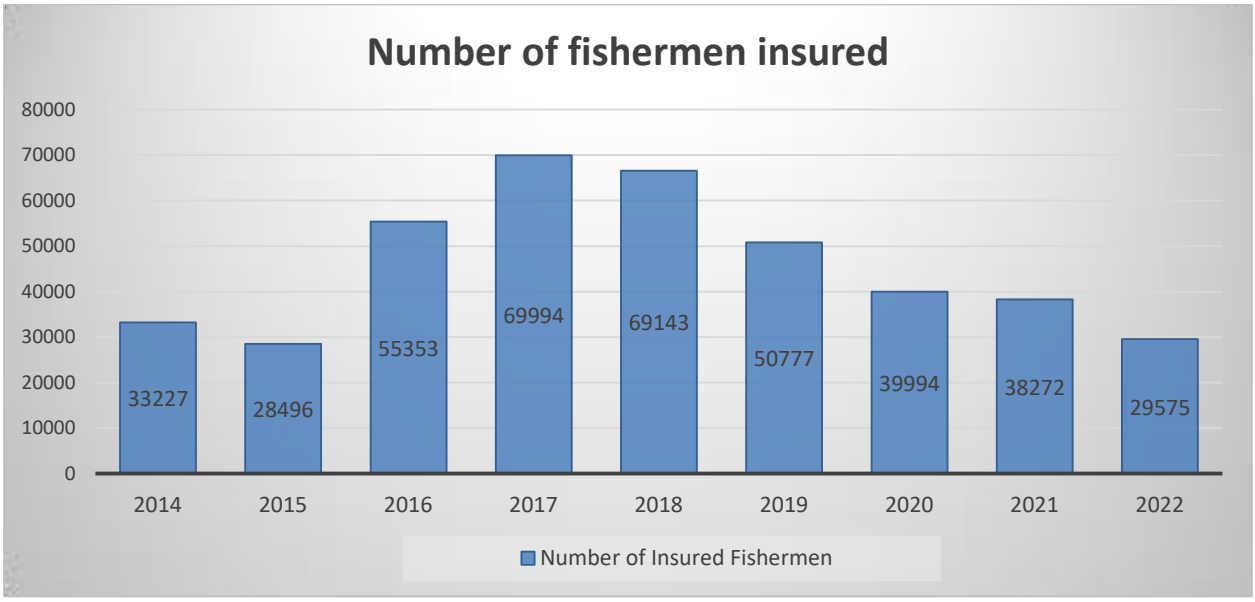
1.2 Ensuring the safety of fishermen

Table 1 - Fisheries Safety Progress

Function	Progress up to 31.03.2022
Total number of fishing boats insured	17544
Total number of fishermen insured	29575
Number of fishers contributed to the fishermen's pension scheme	215
Issue of sea worthiness certificates	11895
Registration of boat yards	48
Registration of fishing gear suppliers	10

The progress of insuring fishing vessels and the progress of insuring fishermenfrom 2014 to March 31, 2022, are comparatively given below.





1.2.1 Compensation for natural disasters

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 charge will be collected from the beneficiary for this undertaking. Under this, a compensation of one million rupees will be given to the dependents of a fisherman who dies due to natural disasters while engaged in fishing operations. In the year 2022, insurance compensationhas been provided for 2 beneficiary families. Furthermore, the Ministry of Finance has been informed to provide compensation for three recommended beneficiaries.

1.2.2 Diyawara Diriya Loan Scheme

DiyawaraDiriya Low Interest Loan Scheme is being launched by the Department of Fisheries and Aquatic Resources together 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 exploiting more qualitative fish harvest by introducing new technology.

Under this, loans are provided subject to a maximum of one million rupees per beneficiary.

- 5% Interest rate charged from the borrower if the amount of loan is less than Rs.2 million
- 7% Interest rate charged from the borrower if the amount of loan more than Rs.2 million
- In this loan scheme, 4% interest rate is subsidized for each fisherman by the Government.
- In 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 longlines and winch machines etc.
- Loans have been granted for 571 beneficiaries totaling a sum of Rs.1,431.00 million.

Even now, the Department of Fisheries and Aquatic Resources is forwarding the 4% t installment interest to the Bank of Ceylon and the payments are to be made until 2027.

Various programs to be implemented by the Development Division of the Water and Aquatic Resources Department in the year 2022 and its progress.

1.3 Direct fuel requirement for fisheries industry (for fishing vessels) with a view to securing jobs in the fisheries sector and ensuring food security - Department of Fisheries and Aquatic Resources:

The total number of registered boats in Sri Lanka is 48776, out of which, 36% are non-mechanical boats and 64% are mechanical boats powered by fuel. Non-mechanized vessels involve in traditional fishing operations carried out in coastal waters and around brackish waterbodies.
In considering the mechanized boats in Sri Lanka's fisheries industry, there are 27903 motor-mounted traditional vessels (MTRB) and One Day (OFRP) fishing boats with outboard engines operating in coastal waters, and multi day vessels (IMUL) with inboard engines engaged in local or international waters. (IMUL) consist of 5388 vesselswhile another 1142One Day Vessels (IDAY) with inboardoperating in one day fishing operations in local waters. Apart from this, the fisheries sector consists of around 16000 non-mechanized fishing vessels.

1.3.1 Requirement of diesel to operate fishing vessels for the fisheries industry:

IMUL and IDAY vessels use diesel as fuel and the monthly fuel requirement for those vessels is estimated to be 26 million liters. Currently, diesel is distributed from 20 filling stations belonging to the Fisheries Harbour Corporation and 19 selected filling stations of the private sector.

1.3.2 Requirement of kerosene to operate fishing vessels for fishing industry

Kerosene is used as fuel by most of the fishing boats with outboard engines. That is, most of the OFRP and MTRB vessels need kerosene as fuel. This means that 27,903 MTRB and OFRP fishing vessels with outboard engines throughout the Island will need 1,044,974 liters of kerosene per day if they are engaged in fishing operationsthroughout the month. However,if it is counted that a vessel is employed for 25 days per month on average, the amount of kerosene consumed per month will be 26,124,350 liters (26.12 million liters).

Along with the importation of crude oil stocks and the starting of refining activities, the release of kerosene stocks (the price of kerosene was increased from Rs. 87 to 340 rupees on 22.08.2022) has been recommenced in the week commencing from 22.08.2022 and thus 102 filling stations have been identified to distribute kerosene for the fisheries industry by the Department of Fisheries and Aquatic Resources. The necessary coordination activities to distribute the kerosene stocks required by the fishermen through the respective filling stations are being carried out by the Department of Fisheries and Aquatic Resources.

1.3.3 Requirement of petrol to operate fishing vessels for fisheries industry

Kerosene is used for running MTRB and OFRP vessels operating on a one-day basis in coastal waters and petrol is used to power the respective vessels. It has been identified that a vessel needs about 2 liters per week. Accordingly, if the amount of petrol required to run these 27,903 vessels is considered to be 2 liters per week, the total amount of petrol required per month is estimated to be approximately 2.25 lakh litres.

Meanwhile, some OFRP and MTRB vessels operating in Sri Lanka's coastal waters are powered by petrol and the total number of vessels powered by petrol is around 168. Then the total monthly fuel requirement for that is about 61,750 liters.

1.4 Implementation of the program to provide monthly subsistence allowance to NTRB vessel owners by the Food and Agriculture Organization (FAO).

With the current economic background of the country, the income levels of many people have reduced drastically. According to the reports of the Department of Census and Statistics, the current rate of inflation has risen rapidly to 21.5 percent. With the increase in inflation, the prices of goods and services in the market have also gone up.

The agreement has been reached to sponsor one of the projects submitted to the World Food and Agriculture Organization by the Department of Fisheries and Aquatic Resources with the aim of providing relief to the low-income fishermen. Accordingly, NTRB vessel owners registered in the fisheries districts of Batticaloa, Kilinochchi, Mullaitivu, Trincomalee, Kalmunai, Tangalle, and Jaffna were selected for this as the first phase under the FAO project. Hence,it has been commence to grant subsistence allowance for 7313 beneficiaries at the rate of Rs. 15,000.00 per month for the period of three months.

Necessary steps are being taken to provide the same to the fisheries districts of Matara, Galle, Kalutara, Colombo, Negombo, Chilaw, Puttalam and Mannar in the second phase.

1.5 Progress of the measures taken to regulate the impact caused to the fisheries industry due to the fire incident of the cargo ship New X Press Pearl on 21st May.

Table02 :Details of the fishermen who were affected

District	Number of Fisheries Inspector's Divisions directly affected	Number of active fishermen	Fishing boats affected
Negombo	13	11081	IMUL40 IDAY60 OFRP2015 NTRB1484 MTRB02
Colombo	10	3250	IMUL11 IDAY14 OFRP446 NTRB294 MTRB01
Kalutara	02	701	OFRP47 NTRB 33

Multi Day Boats (IMUL), One Day Boats (1 Day), One Day Boats withoutboard engines (OFRP), Traditional Fishing Boats (NTRB), Mechanized Boats (MTRB)

1.5.1 Amount of compensation approved by Ministry of Fisheries

Table03 :Amount of compensation provided

District	Number of active beneficiary fishermen	Amount of compensation provided Rs.		
		1st Phase	2nd Phase	3rd Phase
Negombo	**11081**	**206.6475**	**248.7975**	**520.660**
Colombo	**3250**	**61.9425**	**78.1875**	**193.210**
Kalutara	**701**	**14.1275**	**16.3925**	**37.280**
Total	**15032**	**282.7175**	**343.3775**	**751.15**
				1377.24

1.6 Progress of the project of placing fish aggregation devices made out of discarded vehicles with a view to increasing fish stock in the coastal waters

According to the Gazette Notification allocating subjects for the Ministry of the new Government, the introduction of scientific methods to increase the fish stock in the coastal areas is listed as the

first priority. Thus, in order to implement the policies of the Government on the instructions and advice of the State Minister and the Minister of Fisheries, a large number of decommissioned fishing vessels, train carriages and bus templates were deposited in the ocean and used as an artificial substrates without harming the environment with the objective of establishing fish breeding grounds on artificial substrates on the coastal seabed so as to protect the coastal marine ecosystem and marine biodiversity for future generations. The following photos show the progress of the project. The progress of the project is shown by the following photographs.

Figure 01. The fish breeding grounds created on the artificial substrates

Figure 02. The fish breeding grounds created on the artificial substrates

1.7. Lagoon Development (Development Division)

An allocation of Rs. 10.172 million has been provided for the establishment of lagoon demarcation posts, establishment of lagoon management committees and the holding of fisheries participation committee meetings for the year 2022.

The lagoon development program is under for the conservation of lagoons as well as the upliftment of the living conditions of the associated communities by sustainable management of lagoon ecosystems and 18 lagoons selected among the 116 lagoons identified in Sri Lanka are expected to be developed under this programme.

1.7.1 Increasing lagoon fish stock

12 million shrimp fry have been stocked in Thondamanaru, Panama, Garaduwa, Batticaloa, Chandikulam, Nandikadal, Muruttankani and Nayaru lagoons in Jaffna district by incurring 15 million rupees.

1.7.2 Demarcation of lagoons

A provision of 10.172 million rupees has been allocated for the demarcation of the lagoons and so far the Civil Security Department has planted 65 demarcation posts in the lagoons of Chilaw in the year 2022.

2. Management Division

2.1 Sustainable Management of Fisheries and Aquatic Resources

The sustainable management and regularization of fisheries and aquatic resources is a primary task of the Department of Fisheries and Aquatic Resources.For this purpose, issue of management licenses for fishing vessels and taking measures to preventillegal, unregulated and unreported fishing activities are carried out. Pertaining to the year 2022, licenses have been issued forvarious fishing operations and vessels as mentioned below.

Table 04: Progress of each task as at 31.08.2022 in the year 2022

Ser. No.	Activity	Expected target	Progress as at 31.08.2022
1	Registration of fishing vessels	2200	17544
2	Issue of High Seas fishing operations	1500	1250
3	Issue of skipper licenses	500	417
4	Issue of permits for the import of ornamental fish export	25	19
5	Issue of permits for the export of ornamental fish.	65	23
6	Issue of permits for the re- export of ornamental fish	35	12
7	Issue of export permits	120	38
8	Issue of permits for keeping in possession and transport of spiny lobsters		9
9	Issue of licences for taking chanks	50	0
10	Issue of permits for transportation of and keeping chanks in possession.	80	47

11	Issue of permits for the exportation of chanks	49	30
12	Issue of permits for catching, collection, keeping in possession and transportation of beach dimmer	200	128
13	Issue of permits for the import, export and re export of beach dimmer	140	95
14	Issue of permits for the collection, transportation of sea shells and making fancy items by using them	30	15
15	Issue of permits for the export of marine organism cultured on artificial substrates	4	0
16	Registration for the import of fish and fishery products	170	138
17	Registration for the export of fish and fishery products	75	104
18	Registration for the reexport of fish and fishery products	15	5
19	Allocation, approval and issuance of numbers for new vessels	IMUL-150	97
		OFRP-2500	883
		MTRB-150	55
		NTRB-1000	655
		NBSB-50	0
20	Permit for the export of Operculum of ***Chicoreusramosus***	15	5
21	Issue of permits for keeping in possession,sale,displaying andtransportation of Operculum of ***Chicoreusramosu***s	15	7
22	Issue of permits for keeping in possession, sale, displaying and transportation of Operculum of ***Chicoreusramosu***s flesh	30	8
23	Permit for the export of ***Chicoreusramosus*** flesh	15	9
24	issue of permits for keeping in possession, sale, displaying and transportation of dead sea shells	5	0
25	Issue of permits for the transportation and exportation of sea weeds		9
26	Issue of permits for the importation of sea weeds		0
27	Issue of permits for the transportation and re-export of sea weeds		0
28	Issue of log books	2500	1300

2.2 Demarcation of Madel Padu and Waraya throughout the Island by GPS readers and issuance of a gazette inclusive of new Madel Regulations.

According to the Madel Regulations 1984, the fishing operations shall be carried out in a Madel Waraya specified in the Regulations. However, at present, those places have been subjected changesdue to various natural and human activities. Also, the boundaries of the harbours cannot be identified precisely so thata number of problems have arisen in relation to the boundaries at present. Because of this, after several rounds of discussions with the Survey Department, the surveys were started. After that, all fisheries districts were made aware of this and so far the surveys related to Kalutara district has been successfully completed. Meanwhile, the work related to surveying in other fisheries districts is currently being executed expeditiously

3. Quality Control Division

3.1 Taking measures to maintain relevant standards in fish export by the status control department

There is scope 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 establishments 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 sector is 82,of which, 44 institutions are high quality institutions that have been granted permission to export to the countries belonging to the European Commission.

Table 05 :Progress of fish quality control activities as at 31.06.2022 in the year 2022

Activity	Annual Target Q2	Progress
Granting approval for fish processing establishments and laboratories	18	29
Issue of health certificates pertaining to the European countries.	6000	13129
Issue of fish catch certificates	3000	11905
Issue of health certificates for non-European countries.	5000	6622
Inspection of laboratories	02	0
Inspection of fish processing centers	45	22
Inspection of fish packaging centers	5	2
Inspection of lobster collection centers	4	0
Inspection of fishery harbours and landing sites	4	0
Inspection of local and foreign vessels	25	0
Inspection of official samples for fish processing establishments (water, ice and fish products)	150	51
Inspection of water and ice of fishery harbours	9	0
Inspection of (antibiotics/malachite green/ pesticide residues ...etc.) in prawn farms	20	20
Inspection of random sensory evolution of fish processed for export	20	0
Inspection of prawn farms	10	0
Spot checking of imported fish stocks at the airport	25	0

4. Training and Investigation Division

4.1.Building a better relationship between the fisher folks, fisheries officers and other stakeholders

The aim of the training and investigation Division is to build a better relationship between the fisher folks, fisheries officers and other stakeholders with a view to fulfilling the set objectives of the Department of Fisheries and Aquatic Resources to sustainably develop the fisheries industry to contribute effectively to the national economy of Sri Lanka by application of new technology and sound resource management in conformity with the international maritime laws and conventions.

Table 06: Progress of Training and Investigation Division

Activity		Target	Physical Progress
Action against catching, possession, sale, transportation of lobsters during closed seasons		65	0
Taking action against catching, possession, sale and transportation of lobsters during off seasons		10	0
Inspection of catching, possession, sale and transportation of lobsters.		5	0
Inspection of fishing boat building yards, fishing gear suppliers, engine suppliers, fishing equipment suppliers, net retail stores.		69	4
Random inspection for violation of fisheries laws (fishing harbours, landing sites, anchorages etc.)		50	3
Special raids on information		10	4
Internal Disciplinary Rules		6	2
Legal cases		14	19
Investigating and advising without initiating legal proceedings		9	6
Instances which became complex without initiating legal proceedings.		12	1
Checking condition before transfer of the vessel		98	224
Checking the condition of the vessel against any test before changing the VMS unit on the vessel		98	88
Inspection of condition of vessel before the issue of operations license		98	383
Number of skipper licences suspended.		14	3
Training programs and awareness programs for officials and stakeholders	Internal	11	20
	External	9	2
Inspection of fisheries offices		8	0

5 Information Technology Division

5.1.Implementation of the department's services through network software.

Figure 03 : Official Website

The departmental network software is developed to convert more than 30 processes of the Department into a digital process. It includes many processes like registration of fishermen, boat

registration, scientific data collection, etc. The departmental network software has two main components, namely an Android application and a Java application. The Java application is currently running in 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 department's network software. More than 107000 online departures were done for the year 2022 through the online departure system. This process has been continuing from the year 2021 onwards. As the best online software in the year 2022, MSDFAR system won a gold medal from the competition selecting public institutions that use online software.

5.2.Maintenance of the departmental website and content management. www.fisheriesdept.gov.lk.

Figure 04: Official Website

The IT Division is responsible for the maintenance and content management of the official website of the Department. The website of the Department is updated daily and it includes details of the departmental proceedings. Each division has its own page which includes the activities for which such division is responsible. Contact details of officers are available on the website and are updated regularly. A list of all registered exporters, importers, yards and suppliers is maintained in the website and the same is up to date. Officials can access into all the systems of the Department through the website access. The website of Department also won the gold medal for the best Sinhala website and the merit prize for the best government website from the best website competition in 2020.

5.3 Evaluation of the use of online software by the departmental officers.

A scoring system was implemented as an evaluation for the officers who performed their duties using the Departmental Networking Software (MSDFAR) system, and the latest type of tablets were given as an incentive to the officers who obtained higher marks thereby directing all the officers to perform their duties through the system.

5.4 Training of officers on the use of networking software by departmental officers.

The way the software system is implemented in the 15 fisheries districts is monitored separately and the officers of our division are committed to towards that end. The problems they face are dealt with quickly and training was conducted for all the districts which informed the training requirement.

5.5 Conducting a security assessment of the clients of department and network software with (Sri Lanka Computer Emergency Readiness Team) SLCERT.

Figure 05: A security assessment by SLCERT

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

5.6 Enhancing the use of e-log system.

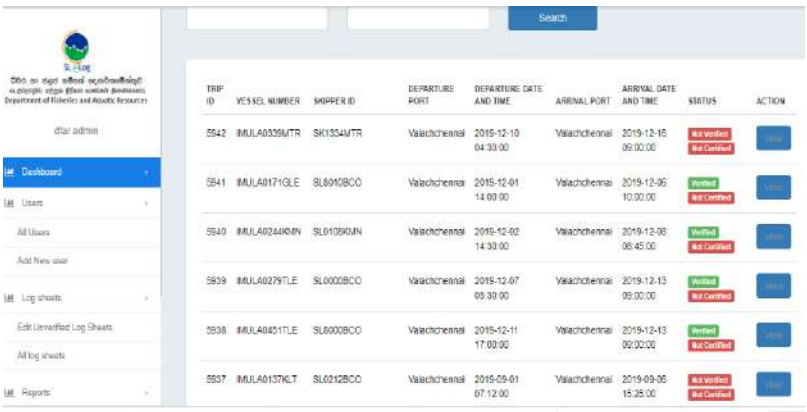


Figure 06 :e-log system

The e-log system has been introduced to all the offices of 23harbours by the Information Technology Department with the coordination of the Operations Division. Data is successfully provided using the e-log system during daily fishing and in addition, this system has been provided to enter log page data for each harbour. Currently this is being done successfully and 2 years of fisheries 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 retrieved by the e-log system.

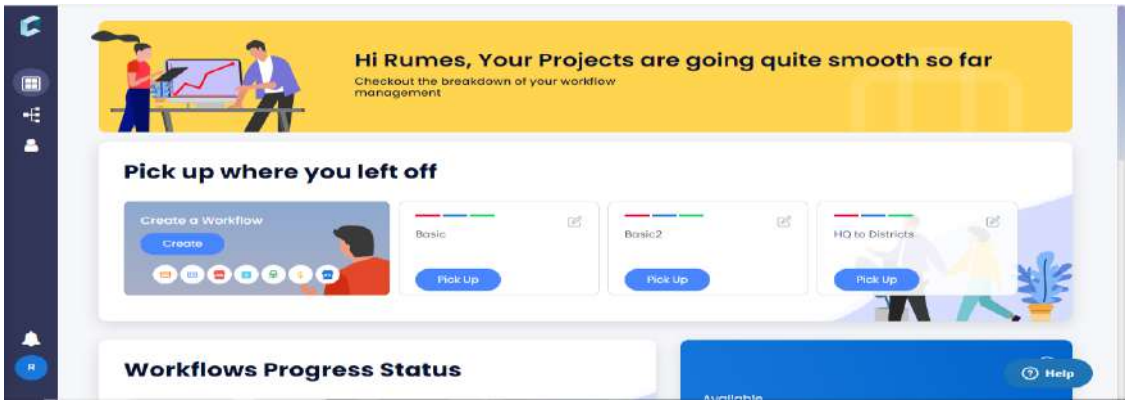


Figure 07:Data Managment (DMS)

5.7 Monitoring of Document Management System (DMS), support and training.

The Document Management System (Doxpro)was successfully purchased and implemented by the Information Technology Division. Basic training on the document management system (Doxpro) has also been given to the Heads of the Divisions of the Department. According to their suggestion and requirement, the Information Technology Division has procured the Document Management System (Doxpro) and forwarded it to the institutions.

5.8.Introducing and launchings of Dynamic Reporting System

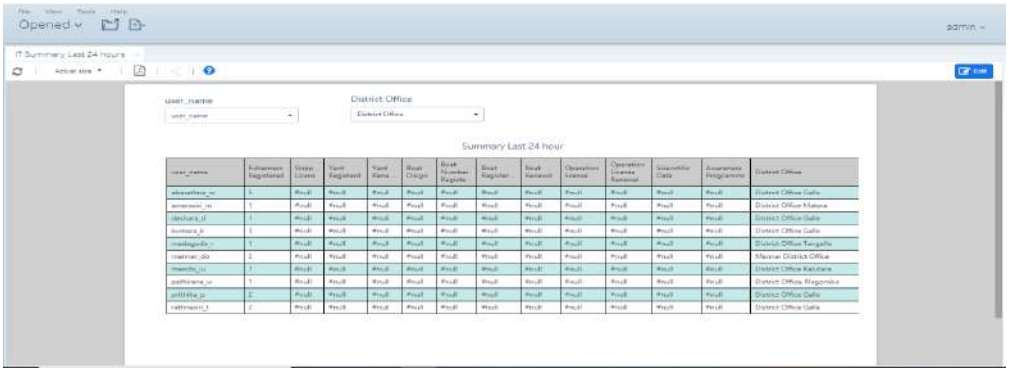


Figure 08: Dynamic Reporting System

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 Information Technology Division installs and operates the “Hitachi Pentaho” community server in the department's server system, and more than 20 reports are provided as per the needs of the officers of the Department. In accordance with our data sharing policy, the IT Division has provided multiple user logins and passwords to third parties such as Sri Lanka Navy, Sri Lanka Police.

5.9 Improving the use of R language for the analysis of data.

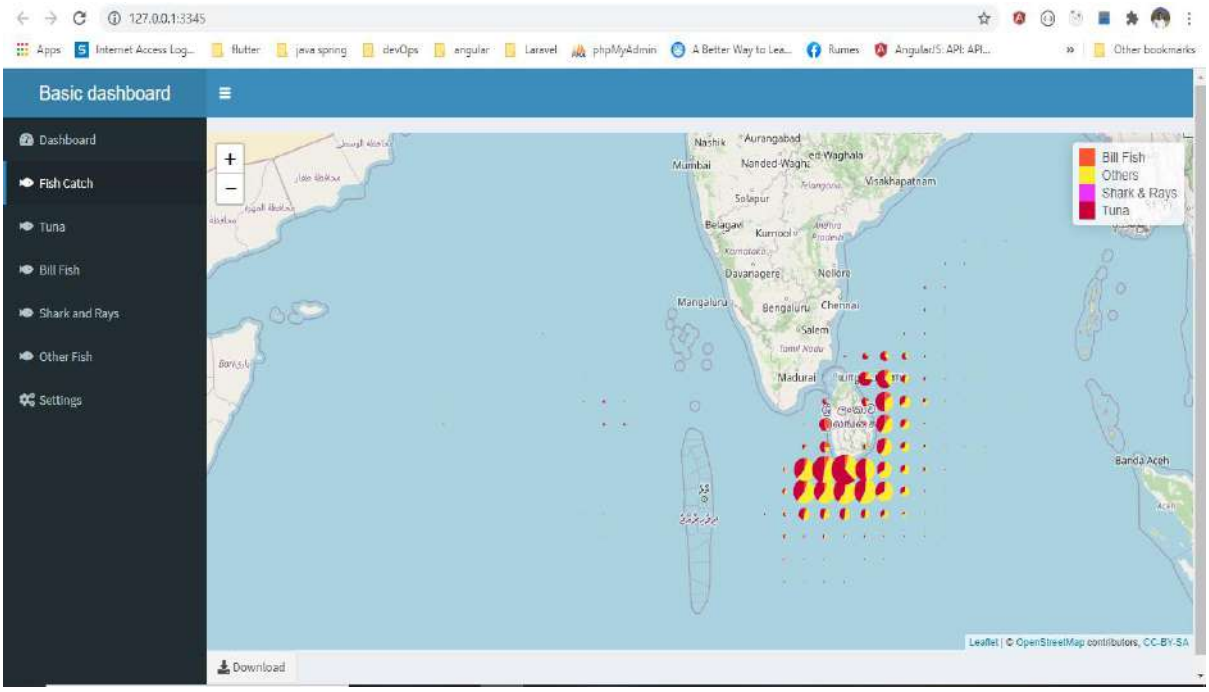


Figure 09: R-Script and R –Shiny software

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 Information Technology Division has created more than 50 maps and reports by using them and most of the data has been used to report to the IOTC.

6. Operations Division

6.1 Providing communication facilities for the exchange of radio messages between fishing vessels and land

The activities of providing communication facilities for the exchange of radio messages between fishing vessels and land is coordinated by the main operations room in Colombo through the regional radio stations. By improving the communication facilities, a connection between land and fishing vessels has been maintained 24 hours a day. This will provide weather reports and early warnings about adverse weather conditions are given on a daily basis and also facilities are provided for the exchange of essential radio messages,made by the vessel owners with their vessels at sea. Necessary coordination activities are carried out with the Sri Lanka Navy, Department of Coast Guards and the regional maritime rescue coordination center from the time the urgent messages are received from fishing vessels until carrying out relief/rescue operations. For these tasks, 19 regional radio stations are engaged with the main office in Colombo.

Local radio centers are proposed to be established in the recently established fishing harbours of Mailady, Valachchena, Dikowita, Vellamankaraya, Kalamatiya and Kapparatota. Currently, the surveillance operations are being carried out normally using the old radios available in the Department of Fisheries, and as such,the necessity of new radios for the above fisheries harbours has arisen greatly.

1.2 Licensing and provision of call signs for communication of fishing vessels.

In order to comply with international rules and regulations, the provision of international call signs for fishing vessels engaged in fishing operations at high seas is done by the Telecommunication Regulatory Commission on the recommendation of the Department of Fisheries and subject to the approval of the Ministry of Defence. The Monitoring ,Controlling and Surveillance Division is intervening to speed up the use of radio communication devices in fishing vessels by getting applications from fishing vessel owners and working in collaboration with the Telecommunication Regulatory Commission.

Number of applications for the licences of radio communication devices granted	754

6.3. Verification of information required to obtain insurance coverage in case of accidents to fishing vessels and fishermen.

When dealing with accidents to fishing vessels and fishermen and claiming insurance compensation by them, all the details of messages given by the fishing vessels to the insurance agencies are submitted having certified by using the entries obtained from the regional offices and the Head Office.

Since the Department does not have rescue vessels to rescue fishing vessels and fishermen at distress, provide them with emergency treatment and bring them to land quickly,assistance of the Navy and the Department of Coast Guard is sought.

Number of accidents reported at High Seas	129
Number of deaths caused due to accidents at the sea	07
Number of fishing vessels destroyed due to accidents	11

6.4. Rescue of fishermen and fishing boats arrested in foreign countries and repatriation of them to the country.

Country	No .of fishers taken into custody	No. of fishing boats taken into custody	No. of fishers rescued	No. of fishing boats rescued
India	20	05	17	03
Maldives	25	04	19	02
Seashells	06	01	05	-
Reunion	59	03	19	-

In this rescue mission, assistance of the Sri Lanka's High Commissions in India, Maldives, and France as well as in Landon has been obtained by the Consular Division of the Ministry of Foreign Affairs.

6.5 Rescue of fishing boats stranded in local & international waters and at the sea belonging to the foreign countries.

No. of fishermen rescued	No. of fishing vessels salvaged	No.of fishing vessels abandoned
945	189	11

Fishing vessels that drifted to the sea limits of nearby countries due to engine failures, fishing vessels that were involved in accidents at sea and fishermen who fell sick suddenly were rescued by Sri Lanka Navy/Coast Guard vessels, merchant ships and fishing vessels, and such fishermen were hospitalized immediately for medical treatment

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6.6 Provision of communication facilities for small / 1 Day boats

The Dialog PLC, Department of Meteorology and this Department entered into an agreement to provide early weather advisories to the small vessels and fishermen engaged in coastal fishing thereby preventing loss of lives. Accordingly, by 2022, about 60000 fishermen and their family members have registered in this information service and they are enjoying its benefits.

6.7 Making aware of fisher folks

Although it is an essential requirement to make the fisher folks/ fishers and fishing 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 hurricanes which occur due to due to sudden weather changes and how to get licenses for radio equipment, the same could not be carried out in a proper mannerdue to the recent COVID epidemic situation.

As a result of the increase in the use of drugs by the personson board and the resulting adverse trend, the number of accidents on the shipping route has increased and the loss of life/vessel destruction has increased. In the recent past there is more inclination of using fishing boats for organized illegal immigration. Similarly, technical hazards in fishing boats at sea have increased and especially, as these hazards have occurred near the maritime boundaries of other countries such occurrences have to be communicated to the rescue operations centers of the said courtiers through the diplomatic mediation. Therefore, vessel owners should be informed to check whether their vessels are in a suitable condition for sea voyages before sending them out. Also, fishing vessel owners and fishermen should be informed to stop using unauthorized frequencies without using frequencies approved by this Department when communicating with the land.

6.8. Departure Codes given to the fishing vessels which departed from each harbour- 2022.01.01 -2022.08.31

	Harbour	No.of departure codes
1	Kalpitiya	506
2	Negombo	3884
3	Dikowita	1363
4	Beruwala	3629
5	Ambalangoda	892
6	Hikkaduwa	671
7	Galle	4145
8	Mirissa	2403
9	Devinuwara	3866
10	Kottegoda	1157
11	Nilwella	2163
12	Kudawella	4362

	Harbour	No.of departure codes
13	Tangalle	1323
14	Hambantota	1119
15	Kirinda	397
16	Valachchena	12834
17	Trincomalee	2850
18	Point Pedro	366
19	Milady	595
20	Wellamankaraya	33
21	Kapparatota	670
22	Gandara	968
23	Kalametiya	25

6.9. Inserting log reports and photographs of vessels into the data base and management of them.

1.	No. of log book copies received by the Unit pertaining to the High Seas fishing operations.	2157
2.	No. of verification reports issued in relation to the fishing operations	2157
3.	No. of log pages of which data was insertedinto log data base.	41076
4	Number of records of vessel photographs maintained for IOTC requirements	3072

According to the Implementation of Port State Measures Regulations 2015,licences are issued and vessel inspections are carried out in respect of foreign fishing vessels coming for obtaining port services in Sri Lanka, landing of fish or transshipment of fish. Inspection reports related to the Resolution16/11 of the Indian Ocean Tuna Commission shall be submitted to IOTC.

Services	**No.of licences issued**	**No.of Inspections**
Transshipment	03	02
Maintenance and supply services	07	01
Security officers and foreign fishermen exchanging services	06	
Total	**16**	**03**

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

Thus, in the year 2021, the number of observers deployed for vessels over 24 meters in length and the number of operations performed by those vessels are as per the table given below.

Number of total fishing vessels > 24m	**Number of fishing operations**	**Number of scientific fishing vessel observations**
22	18	03

6.10 Providing periodic 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 relevant 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 provided to the developing member countries to participate in the committee meetings and sessions.
- Accordingly, Sri Lanka has shown the following compliance progress since 2010.

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

6.11 Installation of 4200 Vessel Monitoring System devices (VMS) for multi-day fishing vessels

Sri Lanka is very rich countries in the field of fisheries industry, and currently about 300,000 families are engaged in the fisheries industry. The Department of Fisheries and Aquatic Resources is responsible for the management and development of these resources in Sri Lanka. As far as management is concerned, monitoring is extremely important and a Fisheries Monitoring Center (FMC) is being created and developed in DFAR for the above purpose only. The FMC is mainly aimed at monitoring the 5200 multi-day fishing boats and their fishing activities.

Even though 1500 vessels have been controlled and monitored at the High Seas through VMS since 2015, the remaining vessels (about 4200 vessels) are not covered by VMS. Hence ,installation of VMS to all multi-day vessels was a timely need to monitor the entire multi-day vessel ,which is the best and cost-effective way to do this. However, the Australian Government through a Memorandum of Understanding (MoU) is supporting and funding to purchase the above 4200 VMSdevices. For this purpose, the Australian Government, having conducted an international tender through IOM (International Organization for Migration) an independent agency, selected aneligible supplier. Accordingly a new VMS; (Blue Tracker VMS) was introduced to Sri Lanka's multi-day fishing sector. The Blue Tracker transponder uses Iridium as a satellite service, which is the most cost-effective and technically acceptable for monitoring task. 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 for the harbour officer through web based system to provide effective services to fishermen through VMS. 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 at the end of August 2020 and about 2200 units have been installed so far. VMS have been installed in about 15 harbours around the Island. Second screen software has been configured and all geozones uploaded. Satellite charges were collected from boat owners and accordingly DFAR pays monthly bills to the company. Bill payment and maintenance of equipment is also done through software developed by the Information Technology Division of the Department of Fisheries and Aquatic Resources. Officers, boat owners and skippers are aware of the system and its functional aspects. In addition, stickers are installed in the boat wheelhouse to inform captains of the technical and legal requirements to operate VMS on board.

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

When using innocent passage within the EEZ, FMC staff is allowed to closely monitor the vessel by increasing the reporting frequency from 04 hours to 01 hours. As optional requirements, the supplier will provide LED Conbox (display) to be installed in vessels and will work with VMS system, allowing the Department of Fisheries and vessel owner to communicate in local language about fish finding, warnings, and 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 being COVID 19 pandemic and the current economic crisis, the Department plans to add another 2000 vessels with the support of its stakeholders, under its monitoring capabilities to reduce illegal, unreported and unregulated (IUU) fishing and improve the safety of fishers at sea.

The VMS system is accessible through all relevant harbour offices and centrally managed by the Fisheries Monitoring Center (FMC) located at the Head Office. Currently FMC monitors vessels 24x7. One of FMC's main duties is to detect suspicious actions such as border crossings, tampering with VMS. FMC daily detects vessels with no or low signal (known as silent vessels) and necessary action is taken to cancel the departure of such vessels until their vessel re-enters the relevant procedure.

Information on all suspicious vessels, including the vessels withlong time inactive VMS will be forwarded to the Investigation Division for investigation. Continuous surveys were conducted to develop a model to identify vulnerable vessels that could 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.
Under the Australia-Sri Lanka VMS project, the FMC has also been modernized with all the latest technology, thus making the Sri Lanka FMC a state-of-the-art monitoring center in Asia.

Figure 10 :Vessel Monitoring Centre

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

2022 Target (Mt)	Inland Fisheries and Aquaculture Production (Mt) (January – July)	Achievement
158,000	59,760	38%

The inland fish production from culture-based fisheries in the perennial reservoirs and freshwater aquaculture production was 49,284 Mt upto July 2022. Coastal Aquaculture production including Shrimp production was 10,476 Mt upto July 2022.

Stocking of Fish Fingerlings and Freshwater Prawn Post Larvae

Annual stocking targets for fish fingerling and freshwater prawn post larvae with progress up to July is given in Figure I

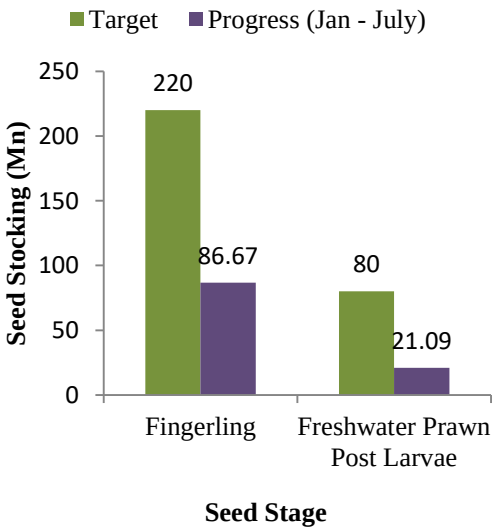


Figure 1: Stocking Targets of fish fingerlings, freshwater prawn post larvae and achievement

Government special assistance programme for fish seed stocking (Budget Proposal)

The budget proposals for the year 2022 have allocated Rs. 490.00 Mn for Fish Seed Free Stocking Programme. Accordingly, it is planned to stock 140 million fish fingerlings, 101 million fish fry and 50 million freshwater prawn larvae (Table 1).

Table 1: Stocking of Fish Fingerlings, Fish Fry and Freshwater Prawn Post Larvae Free of Charge

Category	**2021 Target**	**Stocking (Mn) Jan-July**	**Value (Rs. Mn)**
Fish Fingerlings (Mn)	140	62.41	184.62
Fish Fry (Mn)	101	34.42	19.18
Freshwater Prawn Post Larvae (Mn)	50	17.22	28.00
Transport Cost (Rs. Mn)	14.50	-	7.67
Total Fund Allocation (Rs. Mn)	**490.00**		**239.47**

Freshwater 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 distribute 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 produced at Pambala, Kahandamodara and Kallarawa AQDCs.

Fish seed production up to July is given in Figure 2 and figure 3.

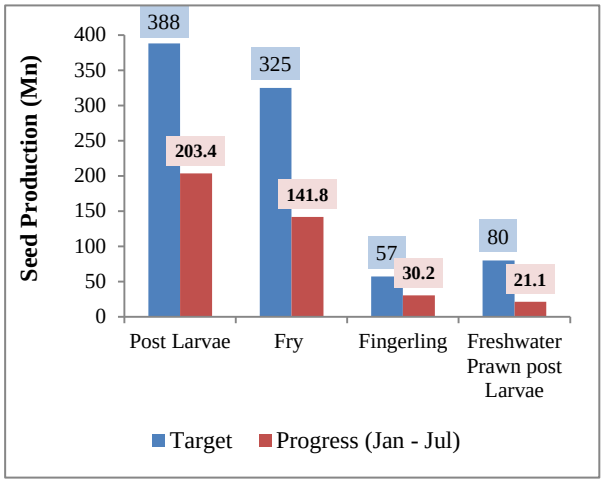


Figure 2: Fish seed production of AQDCS

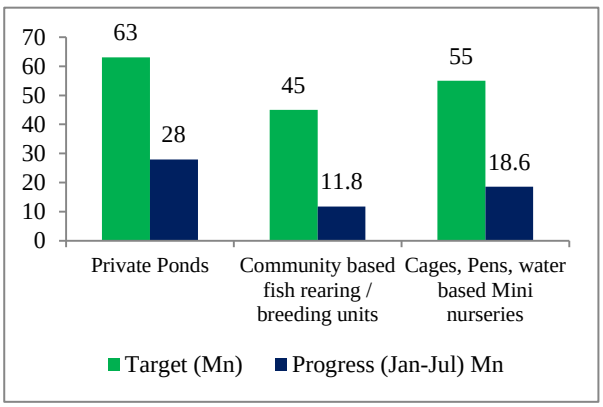


Figure 3: Fish fingerling production from Private Ponds, Mini Nurseries, Cages, Pens

There are more than 12,000 numbers of perennial and seasonal reservoirs scattered over the country however; we are still unable to utilize all potential aquatic resources for aquaculture and culture-based fisheries, because of insufficient of fish seeds production. In order to increase the fingerling production of the country following strategies were adopted.

a) Establishment of community based fish breeding units

In order to increase the supply of fish seed required for stocking in reservoirs it was planned to introduce the breeding technology to community. This will enable the sustainable supply of Carp fingerlings annually. Three Community based breeding units were completed and units are as follows;

i. Ekgaloya, Ampara
ii. Pareipanchan, Trinocmalee
iii. Pudumurippu, Kilinochchi

b) Improvement of small scale fish seed production units for post larvae rearing

Currently, most of mini nurseries are only functioning for rearing fish fingerling from fish fry that purchased from NAQDA breeding centers. As the demand for fish seed is difficult to cater only from NAQDA owned breeding centers, it is planned to upgrade 10 mini nurseries into rearing of post larvae up to fingerling stage. This will enhance the fish seed production/ fish breeding both in NAQDA and mini hatcheries. Improvement works were completed.
Improved units are given in Table 2.

Table 2: Improved units

District	Site
Badulla	Nawamedagama
Ampara	Kirawana
Polonnaruwa	Sevanapitiya
Monaragala	Dozar wewa
	Kesellanda
Hambantota	Adiyangama
Puttalam	Vijayakatupotha
	Devalahandiya
Kurunegala	Hakwatunaoya
Kilinochchi	Muthiyankaddu

c) Rehabilitation and Improvement of Aquaculture Development Centers in order to increase the fish fingerling production of the country

To enhance fish breeding at Aquaculture Development Centers improvement works were carried out. Renovation of existing ponds, improvement of infrastructure facilities, laboratory facilities will help to fulfil the freshwater fish fingerling and freshwater prawn post larvae requirement in the country.

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 continuous surveillance and monitoring activities of NAQDA. Shrimp production up to July 2022 is 9590 Mt.

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.

- ***Common Electricity Supply for shrimp farms***

Rs. Mn 90 has been allocated for the year 2022 for the Establishment of Common Electricity Supply for 64 Shrimp Farms in Puttalam District.

- ***Dredging of Dutch canal***

Rs. Mn 130 has been allocated for the year 2022 for Dredging of Dutch canal and this will increase the productivity of farms in Puttalam District. Cabinet paper has been approved to carryout excavation works by the Land Reclamation and Development Corporation and work is in progress.

Shrimp Farming at Rakawa, Hambantota

Rekawa Shrimp Farm will operate and manage by Taprobane Seafoods (Pvt) Ltd under a public private partnership with NAQDA. This is the first modern shrimp farm established in Southern Province. Shrimp Farm commenced its operations in January 2022 and 77 Mt was harvest up to July 2022.

Sea cucumber Breeding and Farming

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 and Jaffna. 236 Mt (wet) were harvested from pens up to July 2022. 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, Galle, Trincomalee and Puttalam Districts. Further, a private company is carrying out a sea bass farming project in the Trincomalee Sea. 423 Mt was harvest up to July 2022.

Sea weed Farming

NAQDA facilitates sea weed farming with community participation in the Northern, Eastern and North Western Sea. Sea weed harvest in 2022 up to July was 65 Mt (wet).

Other development works initiated for development of coastal aquaculture

Expression of Interest (EOI) called for operation of following brackishwater aquaculture activities

- Establishment of cluster - based sea cucumber farms in Sea Cucumber Export Villages in Kilinochchi and Jaffna Districts
- Aquaculture Zone, Illuppakadawai, Mannar
- Aquaculture in Galmulla & Kokkadicholei Lands
- Aquaculture in 950 ha land at Marnkerni, Batticalao
- Bangadeniya 65 acre land suitable for aquaculture
- Operate and Manage the Marine Fin Fish Hatchery, Batticaloa

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 ornamental fish and plants. These centers sold 2.57 Mn ornamental fish for farmers and exporters up to July 2022. Also, 762 people were trained in ornamental fish farming at Ornamental Fish Breeding and Training Centre, Rambodagalla and due to the current fuel crisis training programmes were not conducted as planned.

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 45 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 taken steps to establish a Marine Ornamental Fish Breeding Centre in Bangadeniya, Puttalam. NAQDA has taken steps to called Expression of Interest (EOI) in order to operate and manage the Marine Ornamental Fish Breeding Centre.

Aquaculture Export Performance

Table 5: Export Quantity and Value

Species	**(January – July)**	
	Export Quantity (Mt)	**Export Value (Rs. Mn)**
Shrimp	3,595.2	8,370.1
Ornamental Fish	-	3,430.2
Sea cucumber	206.0	1,762.8
Crabs	973.4	4,511.1

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

- To ensure application and utilization of Scientific and Technological expertise for the implementation of national development programs.
- To promote and conduct research activities directed at identification, assessment, management and development of living and non-living aquatic resources.
- To co-ordinate and provide advisory and consultancy services on matters relating to exploitation, management and development of aquatic resources.
- To undertake collection, dissemination and publication of scientific research information on aquatic resources & related subjects.
- To provide training related to fisheries and aquatic resources fields.

1. MARINE BIOLOGICAL RESOURCES

1.1 Monitoring and assessment of Small Pelagic and Large Pelagic fishery resources

The historical fisheries data collected since 2000 is made used for assessing the stock status of a key small pelagic stock on the west coast. Accordingly, the catch per unit effort (CPUE) of Gold striped sardinella in the small meshed gillnet fishery operated with OFRP boats on the west coast was standardized. The results of the CPUE standardization will be used for the stock assessment. A photo-based system for species identification and recording length measurements has been prepared with the technical assistance of a Norwegian expert and this will be introduced soon for biological data collection.

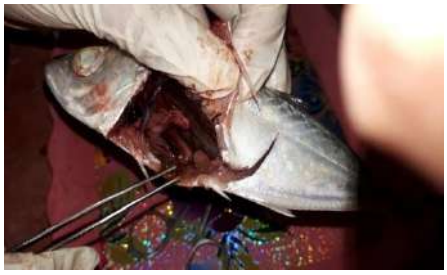


Figure 1 and 2 : Dissected *Selarcrumenophthalmus* and *Rastrelligerkanagurta* for the maturity analysis.

Large pelagic resources mainly comprise of tuna and tuna-like species. The port sampling is conducted based on fishery harbours divided into large-scale high and large-scale low and large pelagic fish landing sites as well. It is a requirement to submit large pelagic fisheries data to the Indian Ocean Tuna Commission (IOTC) in order to manage shared fish stock among the regional country. The production estimates for 2021 were made and submitted to Indian Ocean Tuna Commission (IOTC) as per the IOTC data submission requirements adhering to the deadline. The tuna and tuna-like production of Sri Lanka in 2021 was estimated at 75 501 mt, of which 82.2% composed of coastal production taken within the Exclusive Economic Zone (EEZ) of Sri Lanka. The highest production in the EEZ was observed in the gillnet fishery followed by the long line fishery while on high seas the highest catch was recorded in the Longline fishery. Skipjack tuna and yellowfin tuna and swordfish respectively showed a greater contribution to the production.

The historical time series data analysis regarding yellowfin tuna, bigeye tuna and sharks is currently in progress. A complete data analysis regarding the shark fin trade in Sri Lanka also has been started. Molecular identification of stranded marine mammals and cryptic species of *Deacapterus* and *Lethrinus* species is also conducted to enable assessment of fishery resources accurately.

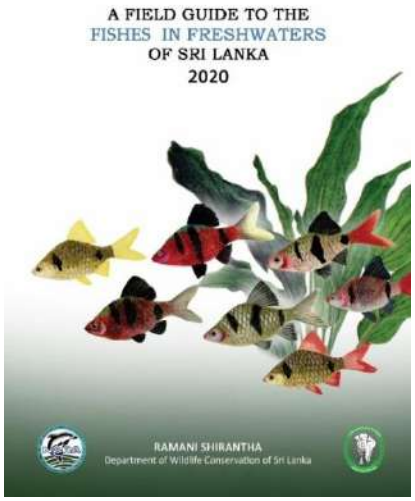
2. INLAND AQUATIC RESOURCES AND AQUACULTURE

2.1 A field Guide to the Fishes and Freshwater of Sri Lanka

NARA completed a work to publish "A field guide to the fishes in freshwaters of Sri Lanka" which was a long-felt requirement of the country. This book was published to guide low enforcement officers, fishery management officers, conservationists, researchers, students, nature lovers and other interest people aiming to support relevant authorities in fishery and fish biodiversity management in the island. It has consolidated all available information of a total of 147 fish species with 160 beautiful colourfull scientific drawings, more than 200 digital photos of live fishes and their natural habitats. Numerous line drawings provide easy understanding to general public. Thus, this book voids the long-felt gap. The introductory part gives a wider knowledge of the ichthyological terms in normatively together with information of diversity, distribution, threats and conservation needs which information were gathered over years and years through NARA's field-based studies as well as the in-situ experiments. The Part I of this book provides an exclusive introductory part on the geographical information of Sri Lanka, the different types of freshwater bodies, basic on fish taxonomy, classification and the fish checklist that is arranged in systematic order. Those are adequate enough to drive attention and to make foremost interest even to an armature reader. The second Part II is the dichotomous key that supplemented with the line drawings which give easy guide to reader to find relevant pages. The Part III gives narrative description of true freshwater fish species with scientific colour drawing and brief information on each whereas part IV is on similar information of the saltwater dispersants, which species usually enter into the freshwaters of Sri Lanka. The final Part is an exclusively quick reference on the regulated freshwater fishes of Sri Lanka that is crucial in low enforcement task.

This particular book was made available as WDC-NARA collaborative publication which disseminates NARA research findings, knowledge and work contributes to the prime target of line ministries.

Figure 3 : "A field guide to the fishes in freshwaters of Sri Lanka"



2.2 Development of ornamental Aquatic Plant Industry

The aquatic plant export industry of Sri Lanka needs continuous supply of high-quality plants to meet up demand. Mass propagation of plants prevents collecting from wild and while conserving the aquatic eco-system. Researches to develop tissue and aquaponics culture techniques and disseminating of knowledge are continuing. Training and pilot project conducted with communities proved good progress.

NARA has conducted online webinar in collaboration with Ministry of Fisheries, NAQDA and Export Development Board. for beginners, industrialist and exporters. Three hundred twenty-five participants took part with the webinar on 24th August 2022.

3. DEVELOPMENT OF FISHING TECHNOLOGY

3.1 Feasibility study on modification of existing gill nets to fulfill IOTC resolution and promote Pole and line for Skip Jack Tuna

Indian Ocean is rich with high economically valued fish resources specially Skip Jack Tuna and it should be harvested properly. Gillnet is a popular fishing method used for catching tuna and tuna like fishes especially by small scale fisheries of coastal states of the Indian Ocean while now it is considered destructive fishing gear because of its extremely high by catch. As such, Indian Ocean Tuna Commission (IOTC) introduced resolution (IOTC 19/01) of gillnets for High Seas in 2019 adhered by coastal states) aiming to maintain stocks in perpetuity and high probability, with taking the sustainable yield and, rebuilding the Indian ocean yellow fin tuna stock in the IOTC area. The Sri Lanka also should implement that IOTC 19/01 by developing mechanism to maintain grift gill net submerged 2m depth from the surface as one option to mitigate the ecological impacts of gill nets. Meanwhile, those gill nets operate both high seas and within EEZ should be confined 2.5km with effect from 2022.

As per the request made by the MFAR, NARA conducts feasibility study on modifications of gill nets with above mentioned specifications while seeking possibility to promote Pole and Line fishery gain for Skip jack Tuna Fishery which was popular among fishermen 100 years ago. Here, two awareness programs were conducted in Beruwala and Negombo and did on board checking of gill nets with 2m adjusted submerged line at Beruwala adjacent waters. Underwater observation confirmed that head rope is lined at 2m depth exactly and those specifications are already aligned with Gill net Fishery in Beruwala area. However, further examination is carried out in Eastern coastal water, thereafter, recommendation will be made.

Meanwhile, the possibility to promote re-operating Pole and Line fishery was examined with concerning bait fish availability and surface tuna schools. Catch and effort information, gear and craft details, social aspects and length data was collected from Suduwella/Kottegoda in Matara and Sirimapura in Trincomalee where the fishery exists at present while potentialities of Bait fish (Hingura) was addressed with R/V Dr. Fridtjof Nansen survey in 2018.

4. DEVELOPMENT OF POST-HARVEST TECHNOLOGY

4.1 Introduction of new technology for the Maldive fish industry in Sri Lanka

This project was launched to ensure the hygienic conditions of the Maldive Fish and dried fish in the local market by introducing new technology to the people who are already engaged in the industry In terms of technology transformation. Expertise was provided by NARA, NERDC and Cey-nor foundation limited to introduce new set of utensils and equipment. The fund has been granted by the World Bank under the agriculture modernization project. Interested applicants were selected based on their scale of production, land space they have, and the amount of money they can spend on this project since the World Bank contribution is only 60% of the total budget.Nearly 300 numbers of people participated in the awareness programs and more than 130 people were interested in the project finally, about 46 people were selected who can accomplish the basic guidelines (experience, availability of land, financial ability for contribution) of Agriculture Sector Modernization Project- Value Chain Development Programme.

The designing of fish storage boxes and fish drying tables were done by the Cey-nor foundation limited and the designing of the smoking unit, biomass dryer and solar dryers were done by Engineering Research and Development Centre (NERDC) according to the specification provided by NARA.

The approved grant was about 66 M for the 46 individuals and finally, 17 m rupees were granted to purchase new utensils and equipment for the nine individuals who successfully completed the application process.

5. ENVIRONMENTAL STUDIES

5.1 Investigation of causes for emergency incidents such as oil spills algal blooms and fish kills (emergency studies)

Environmental emergency incidents including sudden occurrence of fish kills, oil spills, pollution of water bodies with toxic substances, fish and turtle stranding, and algal blooms are very prevalent in the aquatic environments of Sri Lanka. These kinds of incidents were reported mostly with sensational media headlines and mass public protests. Their impacts can be inevitable and long lasting, and it is our utmost responsibility to prevent them from reoccurring and deal with them effectively when they occur. NARA receives information regarding emergency incidents through different source of information such as public, media, and relevant authorities. NARA receives many requests from the public, different parties including government institutions to investigate and provide scientific reports based on the site inspection, field investigation, and laboratory analysis to reduce the negative impacts. Officers belong to other divisions of NARA such as IARAD, IPHT, MBRD and FTD also collaborate with ESD during the field investigations and reporting depending on relevancy. These emergency studies are conducted to identify and investigate the major causes for environmental emergencies and provide recommendation in the form of report, media release, and executive summaries to the relevant authorities. Total of four emergency studies were carried out between January and August 2022.

Pictures from Homagama fish kill

Pictures from field investigation on fish kill in the Divawanna Lake in March

Pictures from Kolonnawa fish kill incident in August 2022

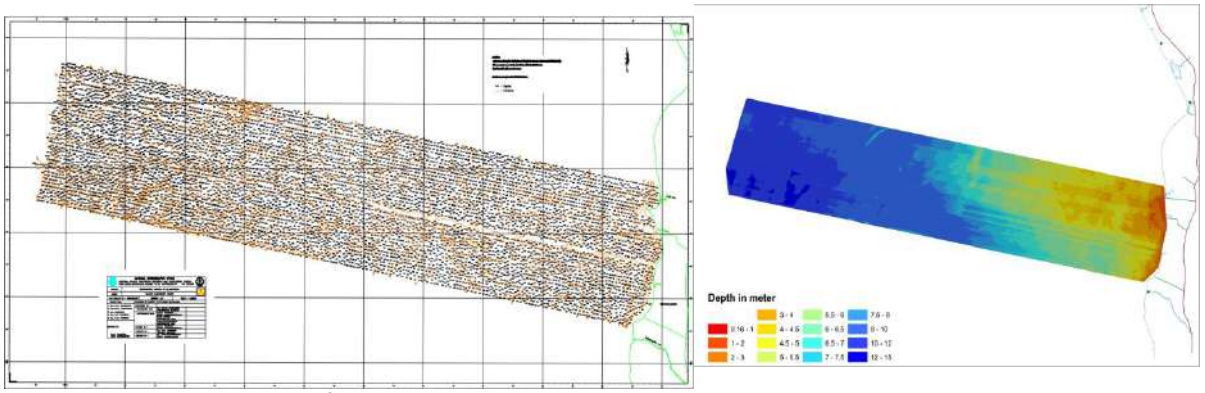
6. NATIONAL HYDROGRAPHIC ACTIVITIES

6.1 National Charting Programme -Nautical Chart of Colombo to Negombo

Being an island nation located in a central position of the Indian Ocean, adopting a Blue Economy strategy is a mandatory for Sri Lanka. As we are the National Hydrographic Office of Sri Lanka improves safety at sea, increases the protection of the marine environment and advances national development leading for more efficient and safe maritime transport. The availability of the nautical charts have been promoting safety and security in navigation and peaceful and sustainable harness of ocean resources.

6.2 Bathyemtric survey for CEB in Silawathura.

Ceylon Electricity Board (CEB) has been developing wind power plant at Mullikula area to conduct bathymetric survey from Marichchakadu to Silawathura to identify the channel to transport long/blades and heavy wind turbine components and to identify the suitable location for a pier for equipment unloading along the coastal strip. CEB has been revealed from the initial investigation that at least 5m draft is required to facilitate the barge transportation.



Final bathymetric maps of the study area.

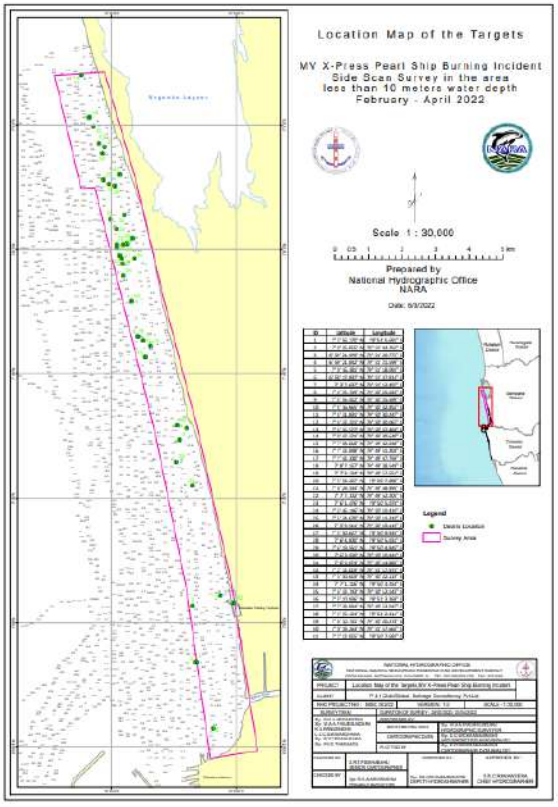
6.3 Side Scan Sonar Survey for MV X-Press Pearl ship burning Incident

The ship MV X-Press pearl sank about 9.5 nautical miles from the Colombo harbor and was carrying a consignment of hazardous chemicals, raw materials for cosmetics and aluminum processing by-products and 300 tonnes of bunker oil. With the sinking of the ship, the release of the chemical is a serious risk to the ocean and the coastal ecosystem. The areas under direct impact are the western coast harbors from where there is offshore fishing, near shore fishing and lagoon fishing andthousands of fishermen have lost their livelihoods.

Further, Sri Lanka is situated strategically at the crossroads of major shipping routes to South Asia, the Far East and the continents of Europe and America, making the country a convenient port of call for shipping lines. Therefore, the side scan sonar was carried out by covering the coastal stretch from Colombo to Panadura area to search the debris based on the incident to facilitate for the safe navigation. Mapped out the scattered debris spread and has identified more than 300 target locations from where the debris will be removed.

MV X-Press Pearl ship burning

Side Scan Sonar Survey for searching the debris of MV Xpress



Scattered debris and identified target locations map

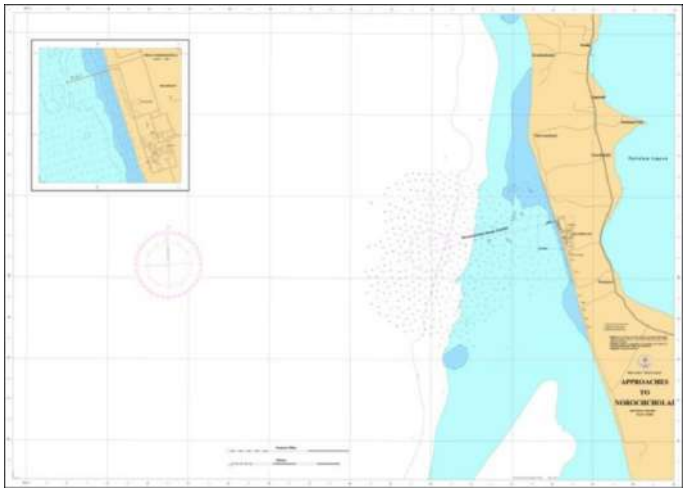
6.4 Level survey for the Dutch canal

In Puttalam district, the water from the Dutch canal is used for the prawn culture in Puttalam and Mundalama lagoon. Because of the deposited sand in Dutch canal the dredging is required to remove them and NAQDA, the client of the project is requested to do the cross sections and LS section survey.

Filed work at Dutch Canal

6.5 Bathymetric Survey at Norochcholai

Energy produced from coal fired plants is cheaper and more affordable than other energy sources. Economic benefits gained by operating the Norochcholai power plant are vital for the development of Sri Lankan power sector and have a significant positive effect on the national economy. As we are the National Hydrographic Office of Sri Lanka improves safety at sea, increases the protection of the marine environment and advances national development leading for more efficient and safe maritime transport. In 2011, the nautical chart of "Approaches to Norochcholai" was produced by identifying the recommended barge channel for the coal transportation upto power plant.



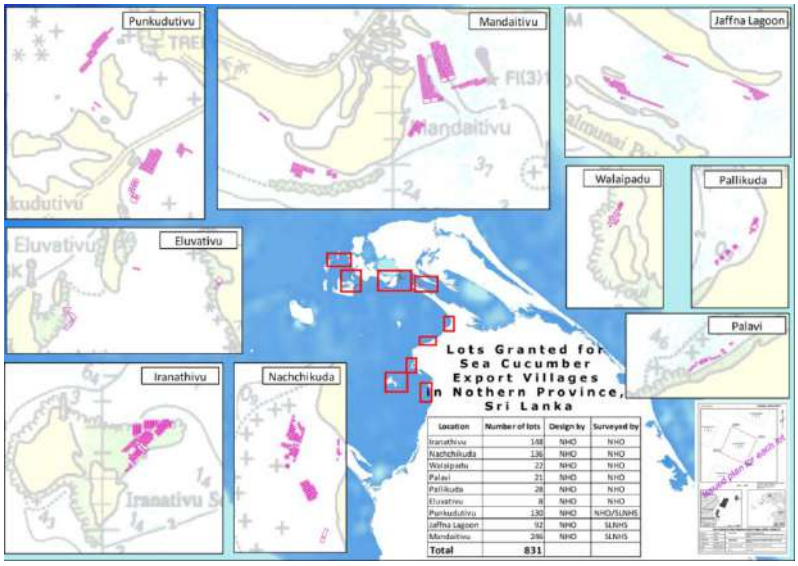
Nautical chart Approaches to Norochcholai

Then, the harbor master and the Ceylon Shipping Co-operation emphasized the importance of having the Nautical chart of Norochcholai by considering the contribution for the national economy of the country. Therefore, the National Hydrographic Office provided the priority for collecting bathymetric data for the Nautical Chart of Norochchoali as an urgent basis and utilized RV. Sammudrika and a small survey boat. The nautical chart of Norochcholai will be published in few stages. At the initial stage, nautical chart of Puttalam harbor is produced including the harbor limits of Puttalam harbor as its gazette. As the second stage data collected within this period using RV. Sammudrika to produce the nautical chart of Approaches to Puttalam and data processing and the mapping is ongoing.

Field Survey at Norochcholai Power Plant

6.6 Mapping for demarcation of areas in the Jaffna Peninsula for the sea cucumber export village in Northern province

To encourage the sustainable agriculture and fishery ventures, the Jaffna district is selected for establishing the dedicated buffer zone for sea cucumber farming for overseas market. The National Aquaculture Development Authority (NAQDA) is awarded this project to demarcate the sea plots for sea cucumber farms. Surveys were carried out to demarcate of plots for sea cucumber export village in Northern Province.



Map of the Sea Cucumber export village in Northern Province

6.7 Lagoon Survey at Arugambay lagoon

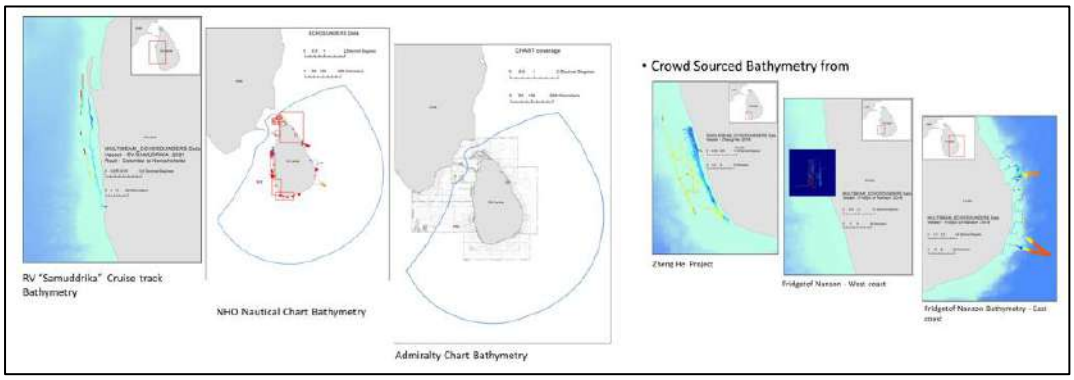
As per the requirements of the inland fisher mans to increase the catchment of the fishing, bathymetric and RTK survey is doing for dredging purpose to increment of the lagoon area and volume capacity of the entire lagoon.

Field Survey at Arugam Bay

6.8 Establishment of Database and online data processing unit for Crowd sourced Bathymetry parallel with the Seabed 2030 global mapping project of the General Bathymetric Chart of the Oceans GEBCO/Nippon Foundation.

The objectives of the project are to gather crowd sourced bathymetry from all the possible means (research vessels, commercial ship cruise, fishing vessels and satellite derived bathymetry) and to establish a Unit for creating a bathymetric database with the metadata information for sea bed mapping of our EEZ to identify the morphology by increasing the data coverage for future ocean-based projects around the country.

The Established Unit for Digital Data Processing



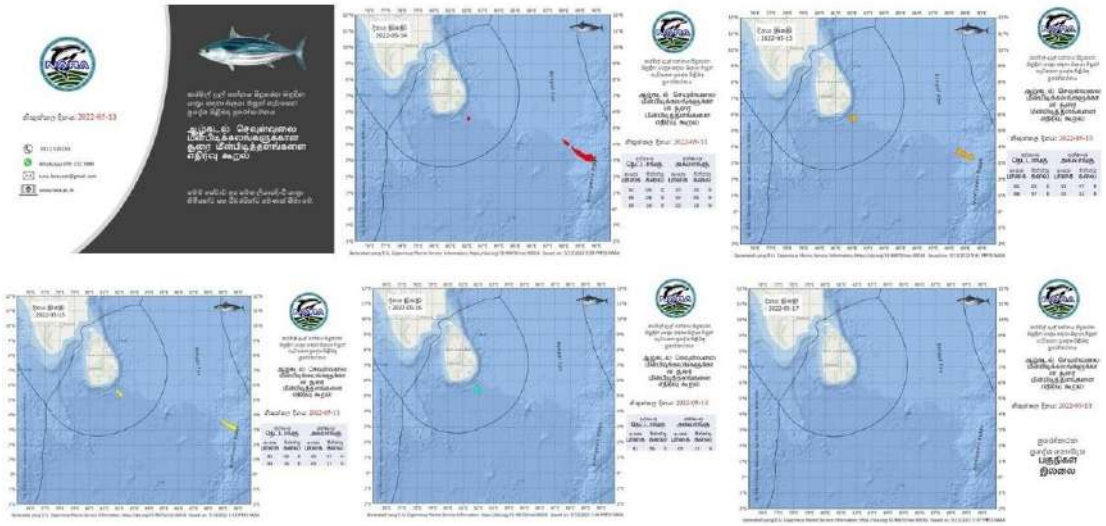
The database in ArcGIS Interface

7. OCEANOGRAPHY AND MARINE SCIENCES

7.1 Tuna Fishing Ground Advisory and Fisheries Information Service

Three times a week forecast of yellowfin tuna fishing ground advisories issuance had continued. In total 76 (out of 77) bulletins disseminated to high sea fishermen via email, Facebook, telephone, and WhatsApp, up to the end of July. Awareness programs and fisheries data collection were conducted in several fisheries harbours, and the number of recipients significantly increased during the year 2022.

Skipjack tuna fishing ground forecast system was developed and introduced. Forecasting commenced from May 2022. The forecast provides a map, showing the potential skipjack tuna harvest sites, during the five days from the date issuance. Satellite, oceanographic, and fisheries data are used to create this forecast. This forecast support gillnet fishers to plan fishing cruise before leaving the port. New databases were developed to collect the fisheries data via online platforms as well as logbooks obtained from the Department of Fisheries and Aquatic Resources. A fishing ground advisory for bigeye tuna will be launched in the last quarter of this year.



A sample of five days forecast for potential skipjack tuna fishing

7.2 Maintenance of Sea level monitoring network and oceanographic database.

Meteorological and hydrological data gathering and transmission from permanent sea level monitoring stations at Trincomalee, Colombo, and Mirissa Sea level stations continued. A new meteorological and hydrological monitoring station at Point Pedro is established. The station is fitted with sea level, atmospheric temperature, pressure, humidity, wind direction, and speed sensors. The Kirinda Sea level monitoring station is restored, a radar sensor is fitted.

Point Pedro

Krinda Sea level stations

Figure: Newly established a) Point Pedro b) Krinda Sea level stations

7.3 Geological and geophysical investigations in continental shelf of South-western coast

7.4 (1) Offshore sand investigations in continental shelf of southwestern coast.

Offshore sand exploration for the construction industry is conducted off Ambalangoda and, Weligama.

Nearly, 45 sq. km continental shelf off-Ambalangoda was surveyed. The thickness of the sand deposit at the site varies from 0.5 to 2 m. The deposit could be a source to cater the need of the land filling in the southern province. The grain size was found to be too fine for the construction purpose, according to the British Standard Limits. Exploration off Weligama for potential sand deposit is in progress.

(2) Beach profile, Sediment characteristics and wave action on sandy beaches of Western coast of Sri Lanka.

Winter sampling (March 2022) of beach sediment on the west coast to assess the inter relation among the grain size, beach slope and wave is continued. Wave power (kW/m) at 15-meter depth was determined using SWAN based wave transformation model.

The results were compared with summer surveys (conducted in October 2021). In summer, beach slope is narrower, steeper, and coarser in D50. The winter-summer profile shows a considerable variation in sediment properties between the coastline segments Beruwala-Colombo (S12) and Colombo-Chilaw (S34). The sediment grain size off the Beruwala – Colombo is larger than the Colombo - Chilaw. The grain size distribution is directly related to the spatial variation of wave energy off the western coast.

7.5 Seasonal variability of ocean current and other parameters around Sri Lanka

Offshore ocean expeditions were undertaken using NARA's RV Samudrika, off Kalpitiya (Bar Reef), Colombo, and Negombo, during the Northeast, First inter and southwest monsoon periods. Seasonal variability in those parameters from the sea surface up to 20 m depth in the water column were conducted.

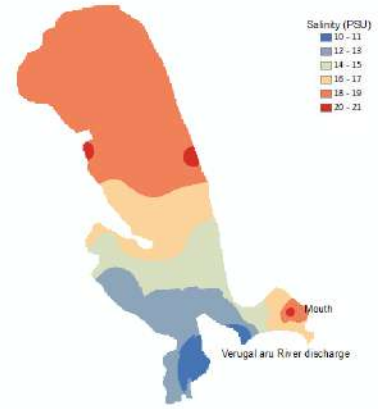
Higher phytoplankton abundance, associated with high nutrient concentrations is found during the First inter-monsoon. The occurrence levels of microplastics (size range: 0.33 - 5 mm) in the waters around Sri Lanka fluctuated between levels low as 0.2 particles/m^3 to an extreme of 350 particles/m^3, where coastal waters are significantly polluted compared to open seas. Higher pollution levels on the western coast were reported during the Southwest monsoon compared to other seasons, and the western coastal waters remain more polluted compared to the rest of the country. During the Southwest monsoon, increased levels of microplastics were observed in the water column. In addition to the commonly found polymer types like PET, HDPE, PS etc., synthetic rubber, and several industrial polymers were found as significant pollutants that contribute to microplastic pollution on the West coast.

Hydrology and water circulation of Lankapatuna Lagoon

Hydrology and hydrodynamic studies of Lankapatuna is continued. Salinity in the lagoon varied from 10 to 20 PSU; higher and lower values are recorded at the northern and souther side of the lagoon.

Tidal amplitude at open sea, lagoon mouth and head of the lagoon are 60, 14 and 6 cm respectively. During the Northeast Monsoon, the lagoon is ebb dominant; ebb and flood current flow are 55.6 and 29.7 cubic meter per second respectively, while in the First Inter-Monsoon, the lagoon turns into flood dominant; ebb and flood current flow are 66.1 and 71.1 cubic meter per second respectively.

The average residence time varied from 4.6 to 14.3 days during the Southwest and First Inter Monsoon period respectively.



Salinity distribution in the Lankapatuna Lagoon during the First Inter Monsoon

8. SOCIO ECONOMICS AND MARKETING STUDIES

8.1 Value chain analysis of Sea Cucumbers and Edible Oysters in Sri Lanka

The study was conducted as a questionnaire survey aiming in exploring the value chains of sea cumbers and edible oysters in Mannar and Kalpitiya areas and proposing possible development strategies to increase foreign exchange earnings of Sri Lanka. A total of 40 respondents were interviewed and 2 focus group discussions were conducted with key informants for the information during the time period of February to July in 2022. The study found that sea cucumber value chain is comprised of collectors, middlemen and exporters and total production was targeted export markets as value added products. Value addition was varied according to the variety and the process was mainly done by middlemen. Study further revealed that Greenfish (*Stichopuschloronatus*) and curryfish (*Stichopushermanni)* were high value species and commonly available in the areas. Study found that existing value chain of edible oyster in Sri Lanka was un-developed and comprised of farmers/collectors, middlemen and exporters/ tourist hotels. The demand for oysters was very low in local markets but showed high in hotels and restaurants due to high preference from foreign nationals. It was further found that by strengthening of market linkages and market information among value chain actors, the demands of edible oysters and sea cucumbers in international markets can be increased.

05
Ceylon Fishery Harbours Corporation (CFHC)

Vision

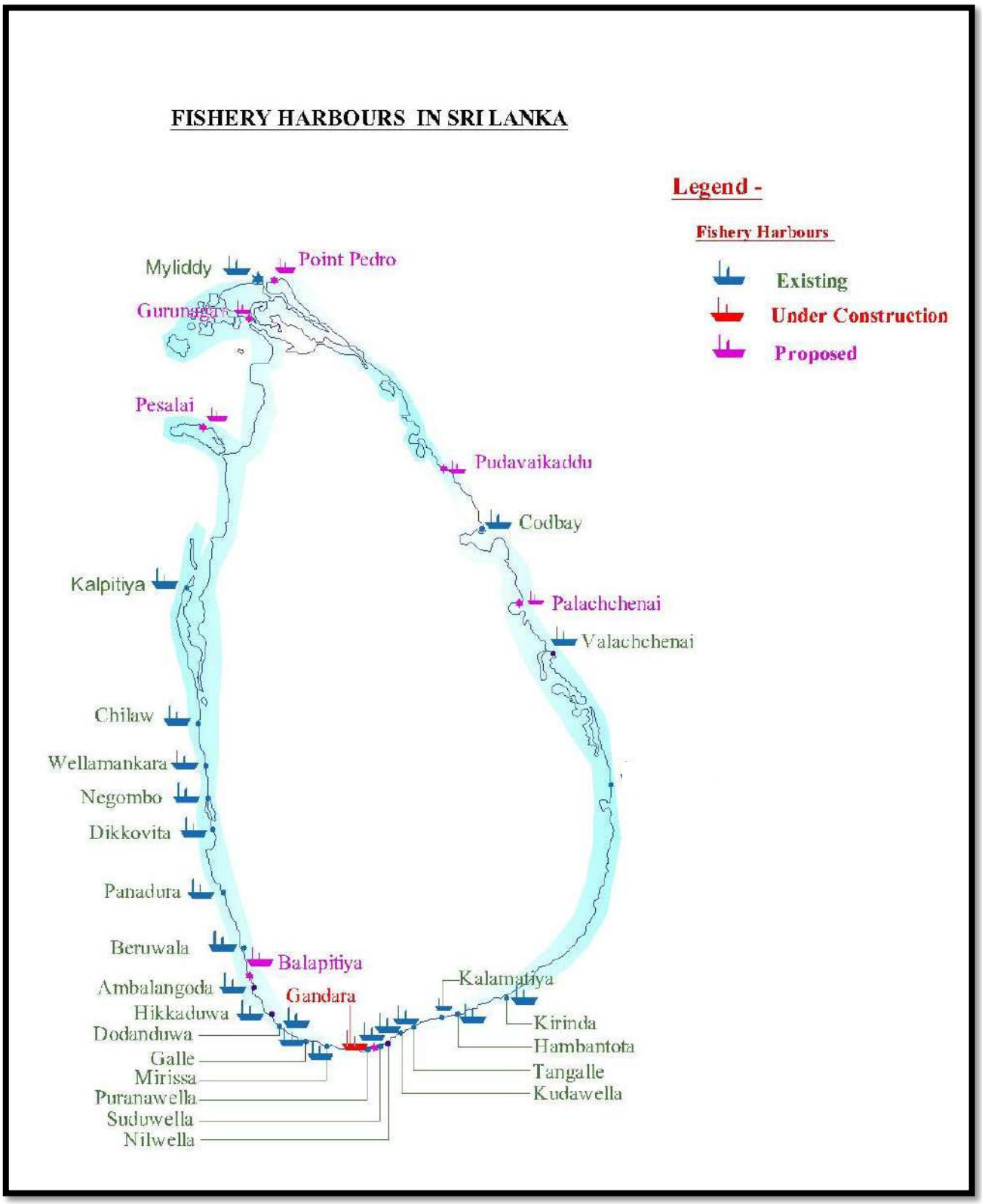
To be the fundamental resource of the fisheries Industry and the inspiration of the local fishing community whilst striving to become the top facilitator of the regions maritime enterprise.

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 andany 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)


FISHERY HARBOURS IN SRI LANKA
Legend -
Fishery Harbours
Existing
Under Construction
Proposed
Myliddy
Point Pedro
Gurunagar
Pesalai
Pudavaikaddu
Codbay
Kalpitiya
Palachchenai
Valachchenai
Chilaw
Wellamankara
Negombo
Dikkovita
Panadura
Beruwala
Balapitiya
Ambalangoda
Gandara
Hikkaduwa
Dodanduwa
Galle
Mirissa
Puranawella
Suduwella
Nilwella
Kalamatiya
Kirinda
Hambantota
Tangalle
Kudawella

Financing CFHC as at 30th of June 2022

Grant	Requested allocation for the year 2022 *Rs. Mn*	Approved Allocation *Rs. Mn*	Total Funds Released Up to 30th June.2022 *Rs. Mn*
Recurrent Grant	752.882	500	246
Capital Grant	728.400	50	18

Financing of CFHC as at 30th of June 2022

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 100 Rs.Mn.)

Progress review of Civil Engineering Works till 30th of June 2022 by using allocation provided under the Ceylon Fishery Harbours Corporation.

Sub projects/ Activity\ies	Allocation (Rs.Mn)		Utilization as at 30th of June 2022	Financial Progress (%)	Physical Progress (%)	Out Put	Remark/ Issues
1.1 Monitoring Hydrographic survey works for all harbours (CAHS)	1	**T**	0.75	75%	75%		Not Having Enough Funds
		P	0.36	36%	36%		
2.1 Rehabilitation of Existing Buildings (CARB)	9	**T**	9.0	100%	100%		Not Having Enough Funds
		P	1.18	13%	13%		
3.1 Roof Repair Work , Head Office and Fishery Harbours (CAR)	3	**T**	3.0	100%	100%		Not Having Enough Funds
		P	0.27	0.09%	0.09%		
4.1 Improvement of Sanitary Facilities (CASF)	2	**T**	2.0	100%	100%		Not Having Enough Funds
		P	2.75	137%	137%		
5.1 Rehabilitation of Existing Sanitary Facilities (CHOSF)	3	**T**	3.0	100%	100%		Not Having Enough Funds
		P	0.04	1.33%	1.33%		
6.1 Regional Procurement Committee Works (CARPC)	7	**T**	5.25	75%	75%		Not Having Enough Funds
		P	3.12	59%	59%		
7.1 (Additional) Payments done to budget codes has not been included in the action plan (CABQ)(CAPW) (CAIR)		**T**					Not Having Enough Funds
		P	2.30				
Total	**25.0**	**T**	23.0	92%	92%		
		p	10.02	40%	40%		

T = Target

P= Progress

Capital Grant – Mechanical engineering
(Allocation 25 Rs.Mn.)

Progress review of Mechanical Engineering Works till 30th of June 2022 by using allocation provided under the Ceylon Fishery Harbours Corporation.

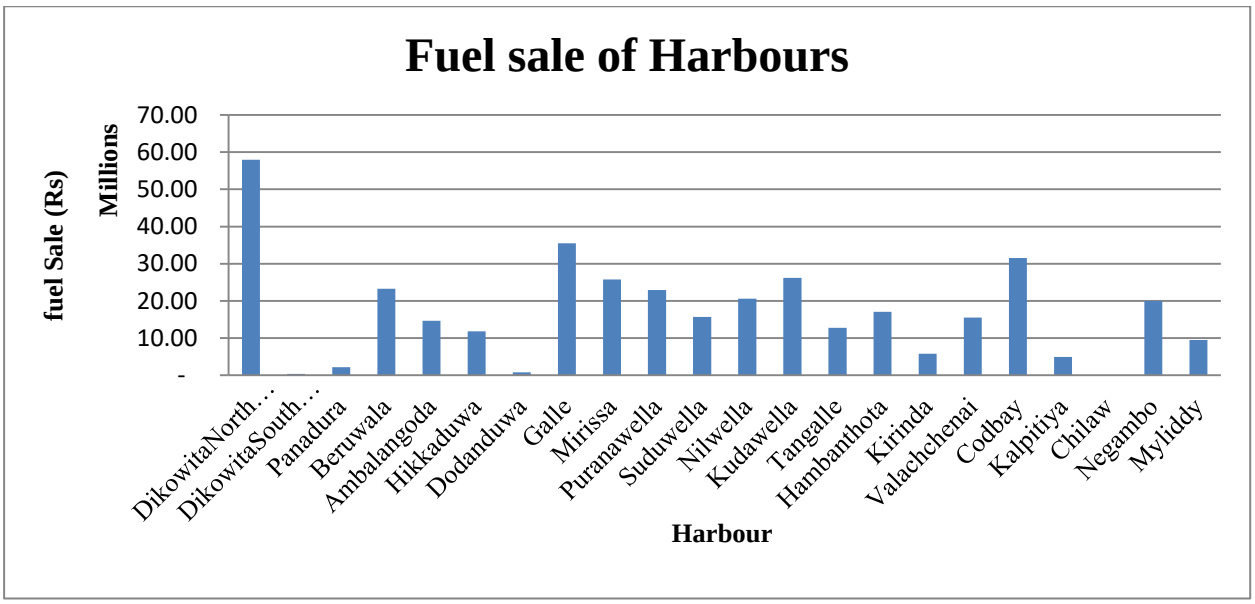
No	Proposed Activity	Allocation (Rs.Mn.)	Total
1	Repair Of Fuel Dispenser Units at all harbours in order to conduct continuous fuel supply	1	201,550.00
2	service and Maintenance of tractors, trailers and generators	1	170,230.60
3	Repair and maintenance of machinery in all harbours (ship way,Travel lift and Ice Plants)	1	100,000.00
4	Repair and maintenance of machinery in all harbours (mobile crane)	4	4,864,706.60
5	Purchase,maintenance,repairs and general Expenses of Salapurakiduri and Nildiyawara cutter suction dredgers	3	732,500.00
6	Purchase,maintenance,repairs and general Expenses of grab hopper dredger(Sayuru & Ruhunuputha)	3	401,296.00
7	Dredging in all harbours (Excavator Fuel, Vessel Insurance Charges etc.)	3	-
8	Purchase becon lamps and repairs of becon lamps & buoys at all harbours	1	2,001,800.00
9	Rehabilitation of Fenders,Chain,D-Shackle ,I Bolts,Tires for all harbours	1	-
10	Procurement of workshop items & other necessary equipment (Welding plants,air compressors, mechanical tools,drill machines etc.. and fabrication of steel carts etc.)for all harbours	1	30,000.00
11	Rehabilitation of electrical works of all harbours	0.5	3,162,757.48
12	Upgrading Communication Systems for Head Office & All Harbours	0.5	-
13	Purchase & Refill fire extinguishers in all harbours	0.5	-
14	Purchase of fixed Assets in Head Office & All Harbours	0.5	1,051,415.00
15	Repair &Maintenances all light vehicles & Bus at Head Office	3	778,971.80
16	Consulting Service	1	-
17	Balance Work-2021 (Mechanical)		19,171,038.81
		25	32,666,266.29

Summery

	2022 YEAR *Rs. Mn*	EXPENDITURE		
		1 ST QUARTER	2ND QUARTER	UP TO 30.06.2022
Civil	25	-	10,874,425.24	10,874,425.24
Mechanical	25	16,614,278.12	16,143,453.17	32,757,731.29
Bank Charges ,Bank Commission & Bank Error		23,500.00	14,500.00	38,000.00
Bid Bond		-	52,000.00	52,000.00
Total	50	16,637,778.12	27,084,378.41	43,722,156.53

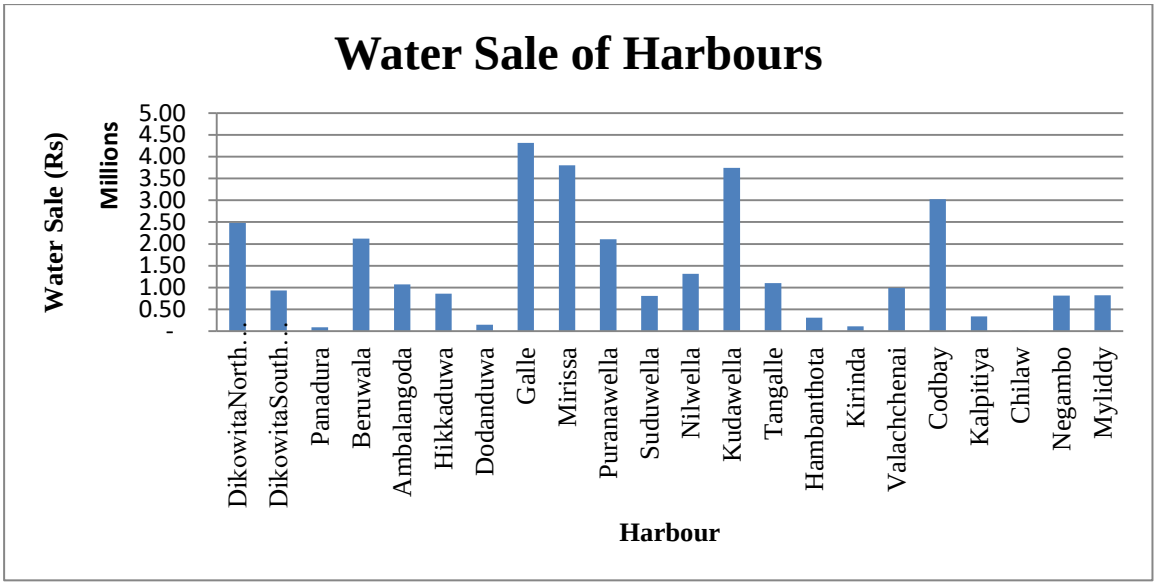
Fuel sale of Fishery Harbours

Harbour	Fuel Sale (Rs)
DikowitaNorth Terminal	57,951,295.00
DikowitaSouth Terminal	370,800.90
Panadura	2,158,525.46
Beruwala	23,228,575.80
Ambalangoda	14,667,099.72
Hikkaduwa	11,791,634.35
Dodanduwa	842,740.02
Galle	35,516,774.11
Mirissa	25,747,790.66
Puranawella	22,888,032.21
Suduwella	15,730,255.73
Nilwella	20,564,686.38
Kudawella	26,222,112.55
Tangalle	12,799,764.89
Hambanthota	17,043,801.64
Kirinda	5,818,422.09
Valachchenai	15,543,277.93
Codbay	31,517,461.65
Kalpitiya	4,973,628.17
Chilaw	-
Negambo	20,019,509.14
Myliddy	9,489,619.02
Total	**374,885,807.42**



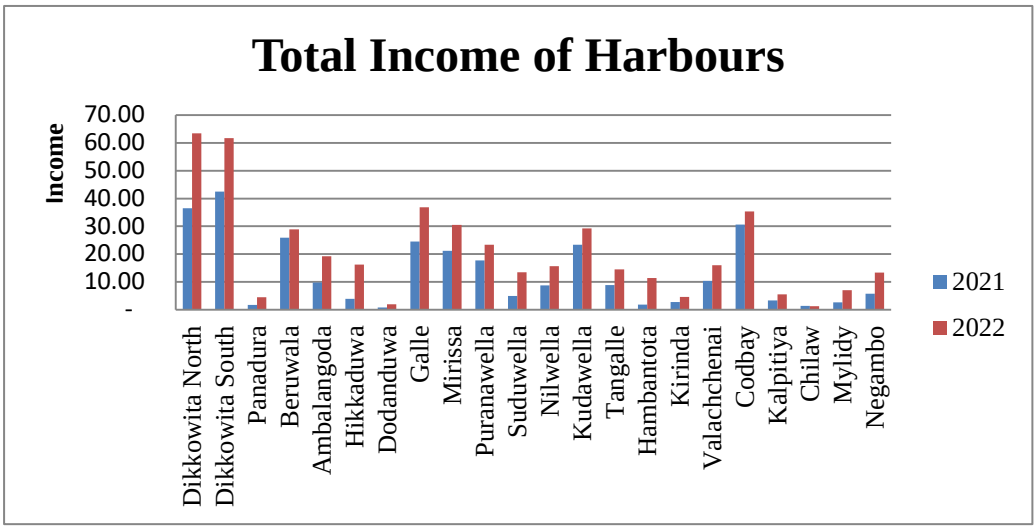
Water sale of Fishery Harbours

Harbour	Water Sale (Rs)
Dikowita North Terminal	2,479,230.00
Dikowita South Terminal	932,000.00
Panadura	85,290.10
Beruwala	2,120,928.58
Ambalangoda	1,074,181.30
Hikkaduwa	858,052.00
Dodanduwa	146,200.00
Galle	4,319,876.01
Mirissa	3,806,171.51
Puranawella	2,108,483.00
Suduwella	807,662.80
Nilwella	1,309,929.00
Kudawella	3,741,601.60
Tangalle	1,097,792.60
Hambanthota	309,442.92
Kirinda	106,330.40
Valachchenai	993,612.60
Codbay	3,027,661.78
Kalpitiya	335,475.12
Chilaw	7,426.68
Negambo	816,805.00
Myliddy	818,973.00
Total	**31,303,126.00**



Accumulated Income of all harbours

HARBOUR	2021	2022
Dikkowita North	36,458,884.41	63,422,747.25
Dikkowita South	42,476,305.89	61,669,788.95
Panadura	1,706,071.23	4,484,433.12
Beruwala	25,861,953.40	28,871,960.42
Ambalangoda	9,818,430.27	19,181,092.68
Hikkaduwa	3,944,331.23	16,209,297.39
Dodanduwa	804,651.32	2,001,825.73
Galle	24,503,544.45	36,818,305.70
Mirissa	21,153,089.00	30,546,874.24
Puranawella	17,762,339.51	23,394,836.72
Suduwella	4,910,498.73	13,518,526.20
Nilwella	8,692,320.78	15,620,621.23
Kudawella	23,392,791.56	29,227,013.79
Tangalle	8,862,755.79	14,482,839.52
Hambantota	1,778,806.47	11,358,278.29
Kirinda	2,774,234.78	4,600,681.71
Valachchenai	10,398,986.95	16,034,956.86
Codbay	30,625,386.16	35,348,926.95
Kalpitiya	3,280,637.17	5,564,062.27
Chilaw	1,403,913.80	1,303,270.10
Mylidy	2,582,289.48	6,972,669.05
Negambo	5,758,077.68	13,370,294.63
TOTAL	**288,950,300.06**	**454,003,302.78**



OPERATING RESULT AS AT JUNE 2021 & 2022 (COMPARISON)

	HARBOUR	2021(Rs)	2022(Rs)
01	Dikkowita North	22,783,129.61	47,680,780.95
	Dikkowita South	29,769,918.05	48,676,574.08
02	Panadura	(7,305,033.79)	(5,279,543.49)
03	Beruwala	1,746,088.79	5,833,073.90
04	Ambalangoda	(2,747,173.87)	7,953,852.27
05	Hikkaduwa	(7,515,443.76)	2,385,067.57
06	Dodanduwa	(6,859,922.92)	(6,797,406.31)
07	Galle	3,875,489.27	16,123,519.47
08	Mirissa	3,619,590.18	13,084,273.45
09	Puranawella	(5,058,743.93)	729,609.38
10	Suduwella	(5,188,090.37)	1,855,330.44
11	Nilwella	(2,469,146.46)	3,938,802.44
12	Kudawella	6,132,361.60	11,123,310.44
13	Tangalle	(10,191,320.99)	(5,908,020.17)
14	Hambantota	(12,615,479.79)	(4,411,777.03)
15	Kirinda	(12,887,039.10)	(13,925,600.34)
16	Valachchenai	(9,128,967.39)	(3,199,140.09)
17	Codbay	2,676,422.78	8,974,556.27
18	Kalpitiya	(3,139,960.74)	(1,553,819.64)
19	Chilaw	(6,121,219.31)	(6,298,611.46)
20	Mylidy	(3,391,666.00)	487,197.37
21	Negambo	(4,538,290.55)	2,510,249.85
	TOTAL	**(28,554,498.71)**	**123,982,279.34**

Capacity of Ice Plants –2022

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	Dodanduwa	10	Cube	No	Proposed
Ambalangoda	Ambalangoda	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	Walachchena	50	Cube	No	Active
Ice production capacity		**367.5**			

Analysis of harbor anchorages facilities -2022

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

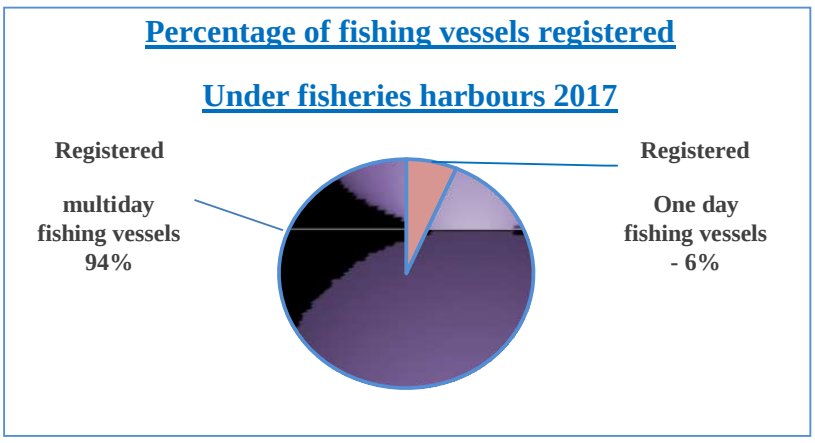
- OFRPB (1) (17-23ft) 03
- 1 Day (3) (28-34ft) 263

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

Multiday (IMUL)

feet 34 - 28 feet	332
feet 34 - feet 40	1896
feet 40 - feet 50	1612
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	1968	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	1965	0.92	2.3	140	4.0-5.0
Panadura	1998	2.13	2.7	270	2.5-3.0
Beruwala	1965	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
Galle	1965	1.5	4	235	3.0-6.0
Mirissa	1966	2.44	7.2	478	2.5-3.0
Puranawella	1980	4.96	14.2	400	2.5-3.0
Kudawella	1998	4.24	13.1	700	2.5-3.0
Tangalle	1965	1.45	2.5	221	2.5-3.0
Hambantota	2010	1.65	5.8	275	3.5
Kirinda	1985	3.5	3.6	450	2.5-3.0
Walachchenai	2011	1.71	3.7		3
Cod Bay	1965	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 Fishery Corporation is 636. Out of which 214 are working in the head office and 422 in executives and 118 employees are working on daily basis. 30 of them are managers.

- There are 23 district offices and divisions related to the purchase and sale of fish in the Ceylon Fishery Corporation and it has 09 purchase and sales offices and 04 purchase offices and 07 sales offices with 03 sales divisions in the head office. Ceylon Fishery Corporation has 91 outlets across the island.

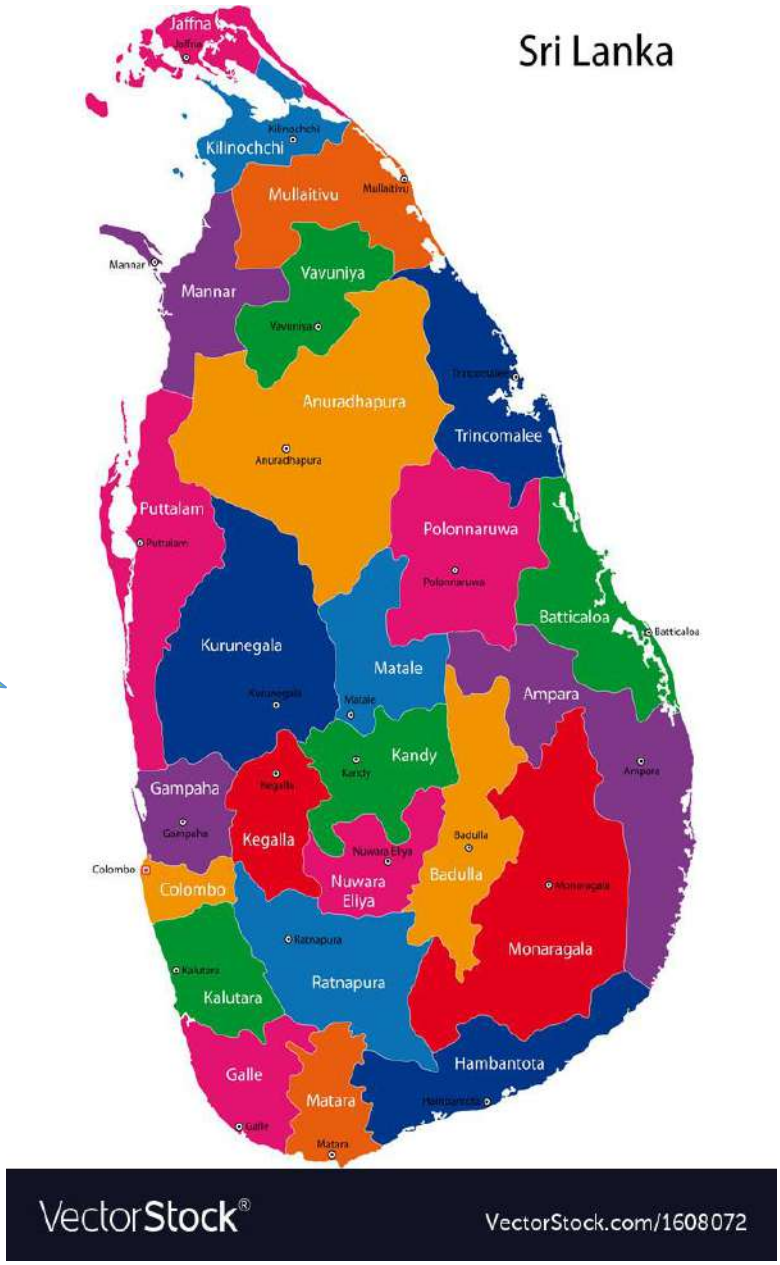
- At present, the total operational process (from January to August 2022) of Ceylon Fisheries Corporation is Rs. 61,722,217.00.

- As of this August, sales executives at Gampaha, Metro, Kandy, Trincomalee, Matara, Anuradhapura, Kegalle, Ratnapura, Ampara, Anuradhapura Ice Plant, Minneriya, Ambalangoda will be running profitably. Other 13 district offices and divisions remain unprofitable.

Sales Outlet Island wide owned by CFC

Pruchasing centers	marketing centers	Selling and purchasing centers
Trinco	Anuradhapuraya	Gampaha
Pesale	Rathnapuraya	Kaluthara
Ambalangoda	Kurunegala	Metro
Chillaw	Kandy	Galle
	Bandarawella	Hambanthota
		Tangalle
		Minneriya
		Matara
		Jaffena

91 Outlets


Sri Lanka
Jaffna
Kilinochchi
Mullaitivu
Mannar
Vavuniya
Anuradhapura
Trincomalee
Puttalam
Polonnaruwa
Batticaloa
Kurunegala
Matale
Ampara
Kandy
Gampaha
Kegalla
Nuwara Eliya
Badulla
Colombo
Monaragala
Ratnapura
Kalutara
Hambantota
Galle
Matara
VectorStock®
VectorStock.com/1608072

06 new stores have been opened in the following areas from January to August 2022.

1. Anuradapuraya – New Town (Mega)
2. Deiyandara
3. Nawalapitiya
4. Jaela (Mega)
5. Modara
6. Hetton

Places expected to open new stores in future –

In this year, centering on Gampaha, Colombo and Kegalle district offices, 02 Gampaha and Kegalle outlets respectively and 03 outlets in Colombo district are expected to be opened, out of which 47.5 Mt will be contributed to the current sales.

At present, the Fishery Corporation (in general) a monthly purchase of about 400 Mt of fish is made and through the outlets spread throughout the island a monthly sale of about 390 Mt is made.

The Ceylon Fishery 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 366 Mt to 500 Mt.

We hope to implement the following plans under this.

1. Attracting more customers and increasing the current sales by 20% by using modern technical marketing strategies in the 91 outlets established throughout the island.
2. 2. In the packaging sector, which has not been active for a long time, together with the frozen fish Sathosa Institute, fish distribution activities have been started again throughout the island and it is expected to develop a sale between 10-15 MT by the end of the year.
3. 3. Going beyond traditional fish sales, the restaurant concept of selling cooked food to cover every district of the island is also expected to be implemented this year.
4. 4. Animal feed production, which has been identified as a non-discussed problem due to import restrictions, and a project to produce and distribute using fish parts left over from selling to the consumer, is expected to be started.
5. 5. On the advice and guidance of the new management, Uber Pick Me, which has been identified as a current market trend, has already been started by the Fishery Corporation.

Human resource -

- In this period after 2011 graduate managers have not been recruited in Ceylon Fishery Corporation and the corporation should recruit at least 10 young managers with new ideas.
- Also, the human resources needed to expand the operational network should be met in order to develop the marketing activities by starting new stores.

01. Availability of transport facilities

In order to achieve the above sales target, I expect that 25 new refrigerated trucks should be purchased for this purpose, as it is not possible to do so with the number of refrigerated lorries that the Ceylon Fishery Corporation currently has.

At present there are about 50 lorries owned by Ceylon Fishery Corporation and these 50 lorries do not have new freezer facilities. Also, since these lorries are about 15 years old, a lot of maintenance costs have to be incurred. However, hospital supplies, ports, parliaments, island-wide services. For transporting fish to stores, it is mandatory to have super-refrigeration facilities.

According to that, it costs approximately 8 million to buy a refrigerated lorry in the market, and 200 million has to be spent to buy these 25 lorries.

Also, when opening 40 new stores, it is necessary to purchase 41 trucks to transport fish to those stores.

02. Cold storage facilities

Ceylon Fishery Corporation had a cold storage complex at the head office and it had a capacity of 1000 Mt. During the operation of this cold storage complex, it made a huge profit (Rs. 03 million per month) and thus even paid the salaries of the head office. At present, when the fish harvest is high, fish are bought and stored there at a low price and released to the market in times of shortage of fish, and there is a profit. Also, in developing the above marketing activities, as well as in special projects (hospitals, parliaments) etc., it is mandatory to have storage facilities to provide continuous fish sales. Also, it is possible to get additional profit by giving the private sector to store fish in this cold storage.

Thus, by 31.12.2022, the total monthly sales of the Ceylon Fishery Corporation will be increased to 500 Mt and by increasing other incomes, the Fishery Corporation will continue to be a profitable institution from the year 2022 and become an institution that is a fixture in the local economy. Our goals and objectives are:

Opening of new stores and renovation of stores in the year 2022

Online Marketing (Uber/PickMe)

Subsidy bag project for low cost

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 2022

NAME OF CUSTOMER	DESCRIPTION	QTY	VALUE (RS.)
		Total	Total
Divisional; Secretariat ,Kaduwela	18.5 canoes with outriggers	10	3,998,324.46
FAO	fiber work storage & others	01	1,374,356.00
Mahaweli Authority, Welikanda	15.5 canoes with Outriggers	100	5,926,176.00
NAQDA	Hatchery Tanks-3.14m, 3.15m	6	1,461,213.00
Ceylon Petroleum ,Kolonnawa	Annual Service-Lanka 02 Boat	1	2,553,901.13
Divisional; Secretariat, Dickwella(NARA)	Fish Drying Tables	25	2,407,763.50
Depatment of Disaster Management	Ferry	5	2,715,257.10
Mahaweli Authority , Colombo	Live fish transport Tank	1	4,326,695.55



SPECIAL PROJECTS IMPLEMENTED IN 2022

- Completion of the pilot project launched to manufacture as Solar powered Eco friendly boat
- Manufacturing of New inland canoes as per guidelines & specifications of NAQDA
- Manufacture of dry fish drying tables for the Department of Fisheries & NARA


PROJECTS BEING IN DISCUSSION IN THE YEAR 2022

- Importing of Fiberglass Raw materials
- Manufacture of new vessels required for fisheries & tourism sectors and fiberglass items
- Commencement of the manufacturing activities in Karainagar dockyard under Indian aid
- Make investments with Dockyard institute

The discussion held at the Ministry Auditorium on 26.09.2022 regarding the development of the production quality of C-Nor Institute

08
Northsea Limited

Vision

Be of excellent contributory to the Fisheries sector by supplying adequate high grade fishing nets and other fishing gears to meet the requirements of the local fishermen so as to achieve enhanced harvesting of sea food

Mission

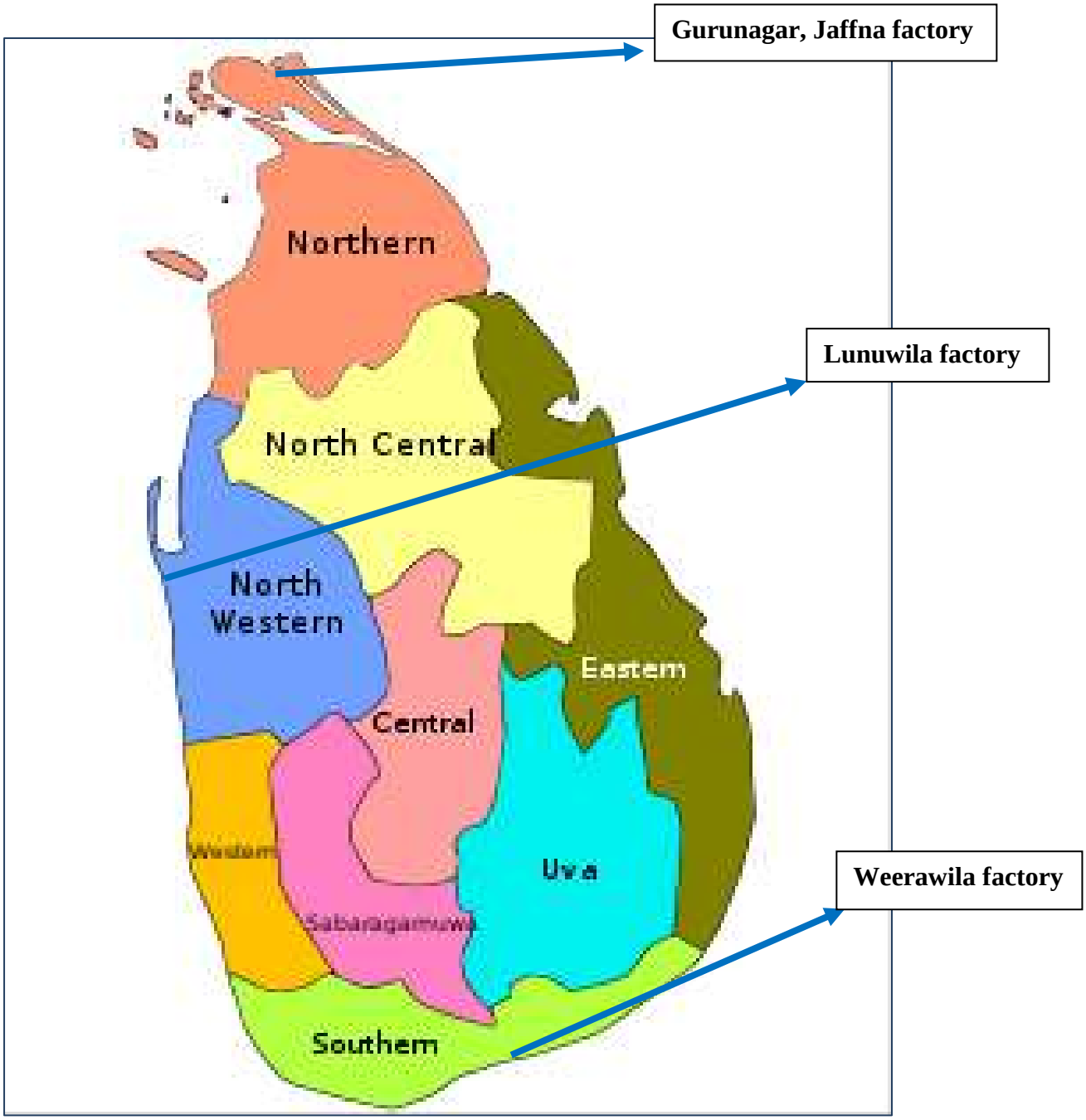
Manufacturing and supplying standard quality of fishnets and other fishing gears to meet seasonal demand in order to encourage fishing activities and seafood production of the country.

Objectives

- Production of Fishnets and servicing of fishermen
- Meeting the Seasonal Demand of the Fishing Community by producing appropriate high grade fishing nets and other fishing gears.
- Enhance efficiency of operations by increasing productive hours
- Manufacturing and supplying of fishnets and fishing gears as well as mending twine for the fishermen in the country.

Policy

The company will give all opportunities to village level fishermen co-operative societies doing business activities as welfare bearing in mind that this is a government organization, giving priority to fishermen welfare which in turn contribute to the country's economy.



Organization

Northsea Ltd is a 100% Treasury owned Fishnet Manufacturing Company, established in June 2001 under Companies Act No. 17 of 1982 and re-registered under new Companies Act No. 07 of 2007.

Northsea Ltd which is currently coming under the purview of the **Ministry of Fisheries** had only one fishnet factory at Gurunagar - Jaffna and subsequently the fishnet factories at Lunuwila and Weerawila were transferred to Northsea Ltd from Ceynor Foundation Ltd vide Cabinet Decision, dated 02nd November 2010 and the Northsea Ltd took over the two factories and commenced operations from November, 2011. The total employment of the company during this period was 259 nos.

The company has been involved in serving the fisheries sector which contributes to the economy of the country in terms of employment, income generation and sea food production. The fishing is engaged in the marine and fresh waters of Sri Lanka and it constitutes an important role in the livelihood activities of the people who live in coastal and dry zone reservoirs of the country. There are more than 150,000 nos. fishermen and their families depending on the fishing activities.

Demand for Fishnets

The demand for fishnets in the country has been estimated based on the number of boats operated during the year 2015 (Source: Ministry of Fisheries and Aquatic Resources Development). The demand is as follows

No.	Types of Boats	No. of Boats	Qty-Pcs.	WT - Kg	Total - Wt	Demand for Fishnets (Kgs)
1	Multi-day Boats	4,218	20	7.5	150	632,700
		4,218	20	5	100	421,800
2	IBM - One Day Boats	719	20	7.5	150	107,850
		719	20	3	60	43,140
3	OBM - FRP Boats	24,028	20	3	60	1,441,680
		24,028	20	2	40	961,120
4	OBM - Traditional Boats	1,872	20	3	60	112,320
5	Non-Mechanized Traditional Boats	21,189	20	2	40	847,560
6	Inland Boats	8,778	10	2	20	175,560
	Total demand for fishnets					**4,743,730**

The local demand has grown mainly due to the increase in the operation of Multi-day boats and OBM – FRPB (Out-board Motor Fiberglass Reinforced Plastic Boats). The demand for fishnets is approximately 4,743Mt per annum as per the number of boats registered. Whereas the local manufactures supply approximately 47% of the total demand, imported fishnets contribute to 40% of the total demand and balance 13% of the demand remains a supply gap not closed.

Suppliers of the Country

No	Name of Supplier	Place of Location
01	Northsea Ltd	Jaffna, Lunuwila, Weerawila
02	Malba International (Pvt.) Ltd	Ja-ela
03	Jafferjee Brothers International (Pvt.) Ltd	Colombo
04	Sadasarana (Pvt.) Ltd (I.P Fishnet)	Chillaw
05	NEFARD Foundation Ltd	Jaffna
06	Rajah Fishnet (Pvt) Ltd	Oomanthai
07	Lake FBS Pvt Ltd	Hambantota

Main Importers in the Country

No	Name of Importers
01	Lafeer & Sons
02	F.B.S. Lanka (Pvt) Ltd
03	J.P. Fernando & Sons

The Total Fishnet Production Capacity of the Factories

No	Description	Gurunagar	Lunuwila	Weerawila	Total
01.	Total production capacity – p. a (Mt.)	300	240	180	720

Fixed Capital

Land and Building

The company owns the land in which the Lunuwila factory operates and the Weerawila and Jaffna factories operate on lands owned by other Government institutions of which details are as follows;

Production and Operating Facilities				
01.	Gurunagar- (Jaffna)	350	16,220	Government institution
02.	Lunuwila- (Puttalam)	568	25,539	Own land
03.	Weerawila-(Hambantota)	137	15,000	Government institution- Paddy Marketing Board

The factories are equipped with Netting, Twisting and Processing Machinery of which details are as follows;

No.	Description	Type of net Produced	Gurunagar	Lunuwila	Weerawila
a.	***Netting Machinery***				
01.	Amita 6mm pitch	2-6 ply	01	-	-
02.	Amita 7mm pitch	2-9 ply	02	05	04
03.	Amita 9mm pitch	9-15 ply	01	01	01
04	Amitech 7mm pitch	4-6 ply	-	-	02
05.	Amita 11mm pitch	12-24 ply	01	-	01
06.	Amita 14mm pitch	24-36 ply	01	03	-
	Total		**06**	**09**	**08**
	Total Annual production capacity		300Mt.	240Mt.	180Mt.

No.	Description	Type of net Produced	Gurunagar	Lunuwila	Weerawila
b.	***Twisting Machineries***				
01.	Lezzani	2-9 ply		02	
02.	Collins	15-27 ply		01	
03	Amitech	12-36 ply		01	
04	Jmw	15-60 ply	01	0	
	Jmw	2-9 ply	01	0	
	Total		**02**	**04**	
	Annual production capacity		200 Mt	120 Mt	
c.	***Processing Machinery***		Available	Available	Not Available

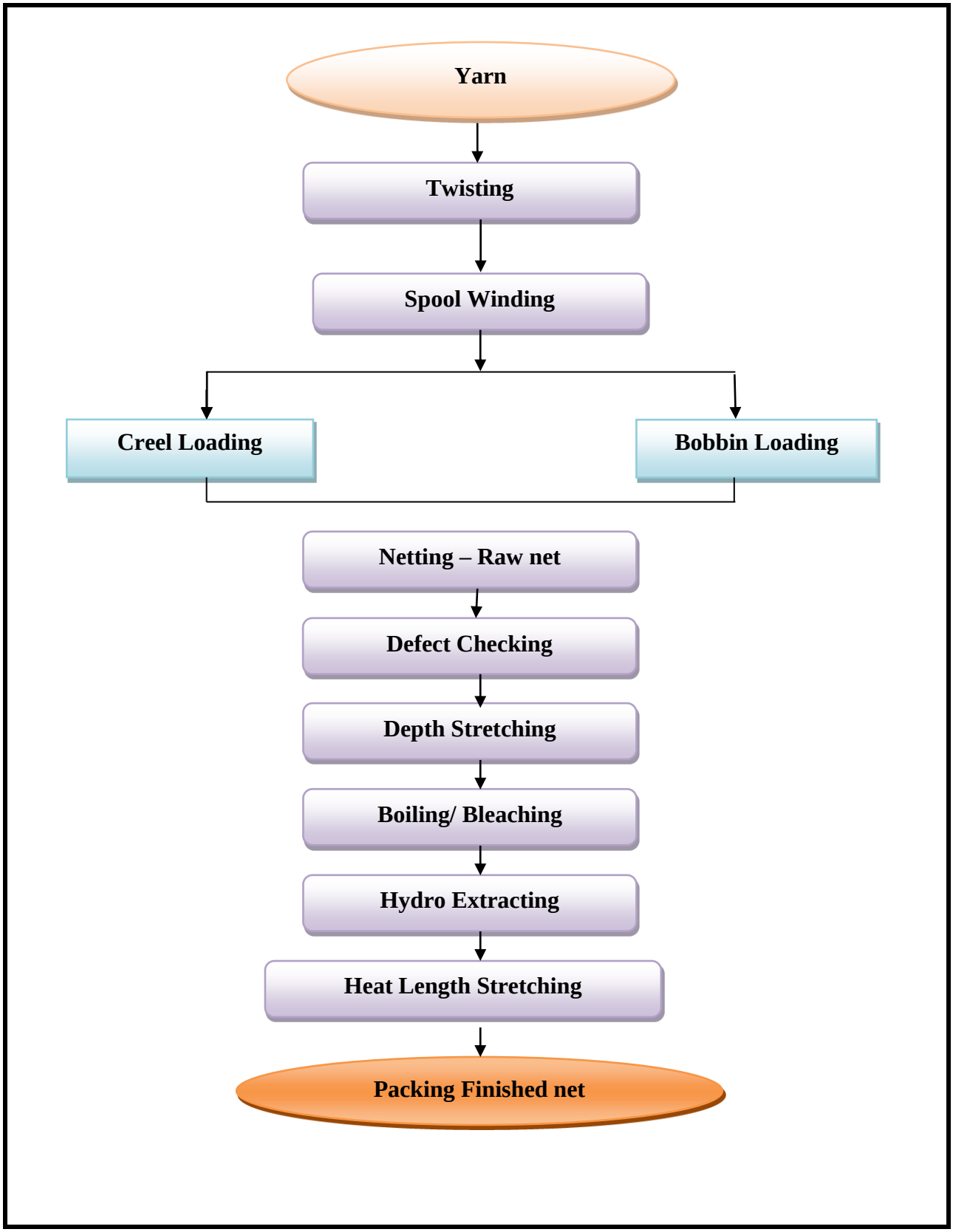
Production and Sales of Fishnets for the Year 2022

2022 Jan - Sep

Factory	Production		Sales	
	Targeted Production	Achieved Production	Targeted Sales	Achieved Sales
Gurunagar	135.00 Mt	**19.59 Mt**	180 Mn	**40.34 Mn**
Lunuwila	108.00 Mt	**12.57 Mt**	135 Mn	**42.59Mn**
Weerawila	72.00 Mt	**13.69 Mt**	72 Mn	**20.96Mn**
Total	**315.00 Mt**	**45.85 Mt**	**387.00 Mn**	**103.89 Mn**

Production Process

The factories and the technical staff have more than 30 years of experience in fishnet production. The typical production process is mentioned below.



ECONOMIC AND SOCIAL DEVELOPMENT

Target Market share of the Company is 13.47% which would avail the fishing community of quality fish nets at reasonable prices, thereby enabling them to indulge in fishing activities and enhance their earnings capacity and sustainability.

The production and availability of fishnets could also increase the harvesting of fish and the production of associated fish products to satisfy the consumer requirements and enhance the welfare of the fishing community.

The manufacture of fishnets would enrich the lives of fishermen and enable them to earn the income necessary for their welfare by meeting the consumer needs, which in turn would contribute to the Country's economy in terms of National income, Gross Domestic Product (GDP) and Gross National Product (GNP).