Progress Report 2018

Ministry of Agriculture, Rural Economic Affairs, Livestock Development, Irrigation and Fisheries and Aquatic Resources Development
(Fisheries and Aquatic Resources Development Sector)
Maligawatta, Colombo 10

Contents

Fisheries and Aquatic Resources Development Sector

Fisheries and Aquatic Resources Development Sector

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 persont and future generation and future generation

Policy Objectives

- Increased contribution of fisheries sector to the national economy development
- Increasing the living standards of the fishermen community
- Sustainable management of the fisheries sector
- Expansion of employment opportunities in the fisheries sector
- Minimizing post-harvest losses

Desired Outcomes

- High contribution to the GNP
- Qualitative improvement of living standards
- Ensured sustainability of fisheries in a Blue Green Economy
- Improved employment opportunities in the fisheries sector

Institutions giving contribution to the fisheries sector and their objectives

Department of Fisheries & Aquatic Resources (DFAR)	**Desired objectives -** Management, Development and Conservation of Fisheries and Aquatic Resources of SriLanka **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 20 fishery harbors and 58 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 Ltd	**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

01. Increased contribution of the Fisheries Sector to the development of the national economy

Progress of the Fisheries Sector in 2018

Sri Lankan fisheries sector mainly consists of 517,00km sea area with abundant fish resource and 489,000 hectares of lagoons, estuaries and reservoirs that show high potential of development. Also, the Sri Lankan fisher community whose livelihood was fishing since the time immemorial and the related indirect employees account for the Sri Lankan fisheries sector. It is applaudable that the government has constructed a significant number of infrastructure facilities with a view to uplifting Sri Lankan fisheries industry which is abundant in natural and human resources

It is noteworthy that Rs. 2,736.04 Mn of monetary provisions that has been allocated up to now by budgetary and supplementary estimations of 2018 to the Fisheries sector of the Ministry and the capital provisions made to the affiliated fisheries sector Institutions were utilized to the effect that the programmes identified on priority-basis were implemented successfully by the Ministry and the Institutions, overcoming numerous challenges unieque to the fisheries industry.

Especially, the total fish production during January- December 2018 was marked as 527060 Mt for which marine and inland sectors have made a contribution of 439300Mt and 87690Mt of fish production respectively.

Fish consumption is paramount as a source of protein required in developing the nutrition level and good health of the public. Even though per capita fish consumption in 2017 was 45.4g per day, the amount has been increased up to 46.0 g in January- December 2018. This amount is expected to be increased in coming times.

When considered the fisheries sector's increased contribution to the national income, the contribution of fish exports proves to be remaining at an appreciably high level. From January to December 2018, the total amount of fish and fishery product exports was reported to be 27,998 Mt amounting to an export value of Rs 47, 949 Mn. Further, ornamental fish exports within the said time span, has earned an income of Rs 2,626 Mn.

Wewak Samga Gamak, the housing and livelihood development programme implemented in 2017 with a view to developing the living standards of the fisher community, has proved to be producing desirable outcomes from January to December 2018, successfully developing infrastructure facilities of all the districts, constructing new houses while renovating the existing houses, establishing integrated inland fishing villages and developing sanitary facilities.

With the utilization of provisions of the year 2018, multiple development projects are in operation within the fisheries sector. Development of fishery harbours, anchorages and

landing sites, stocking fish fingerling in inland reservoirs to develop inland fisheries industry, introducing new technology to fisheries industry, developing infrastructure for the empowernment of fishing community, construction & renovation of hosuing for fishermen, livelihood development programmes, coastal rehabilitation & resource management, construction & development of fish breeding centers, delopment of fishing villages, establishment of integrated fishing villages, cleaning 10 lagoons, improving the operational efficiency of multiday fishing vessels and purchasing of multiday fishing vessels larger than 55ft are among the prominent projects in 2018.

Measures have been taken to amend the rules at national level and empower the legal provisions against illegal fishing, in compliance with the conventions formulated by regional and international organizations to deter the Illegal, Unreported and Unregulated (IUU) fishing. Also, the illegal Indian fishing activities on Northern Sri Lankan waters could be reduced as a result of the continuous bilateral discussions between Sri Lanka and India.

In addition, Cabinet approval has been granted to the national fisheries policy formulated with technical assistance from Norway, which will pave way for a sustainable fisheries sector that is capable of meeting future economic trends of the international industry based on policies appropriate to Sri Lankan context. It is scheduled that the policy be tabled in Parliamnet and approval be obtained in future.

Alos, giving emphasis to the Sustainable Development Goal 14- Life below water (Blue SGD), the scope of the Ministry directly contributes to the implementation of related special projects and programmes. In this regard, a regional conference was conducetd by the Ministry on 21st -22nd June 2018 in relation to challnegs, objectives and programmes on Blue SDG with the participation of local experts and foreign representatives.

Likewise, NARA has pointed out that the post-harvest losses in fisheries remain at a level between 40% - 60% according to their studies and they have also recommended relevant strategies to minimize such post-harvest losses. In this regard multiple measures are being taken such as awareness raising of fishermen, manufacture and modernization of fishing vessels with cutting edge facilities, use of quality water and ice, systematic harvesting and landing of fish and operation of fishery harbours equipped with cold rooms and hygienic water facilities. These factors were given given much emphasis in the construction of new harbours, anchorages and at the same time in the renovations of existing avenues to make them technologically advanced.

Over all, these positive outcomes and achievements will be supporting the social and economic development of the enter country in line with the fulfillment of the government's Blue Green Economy national policy, His Excellency's Food Security Programme and United Nations Sustainable Development Goals.

01. Fish production, market and infrastructure development

For an increased contribution to the national economy from fisheries, it is paramount to increase the quantity of annual fish production, its good quality and fish exports. As the result of this process, within the first six months of 2018, the fisheries sector contribution was reported as 1.2% to the national economy according to the data of Department of Census and Statistics

Various projects and programmes were conducted in 2018 by the Ministry and affiliated institutions with a view to developing export-oriented marine, inland and brackish water fisheries of which positive outcomes are indicated by improvements in marine and inland fish production and exports.

1.1 Increase of the annual fish production

The total fish production of the country is 527060 Mt from January to December of 2018. Contribution for this increase comes from main sub sections of the fisheries sector i.e. 47.2% from coastal fisheries and 36.1% from deep sea fisheries and 16.6% from inland fisheries.

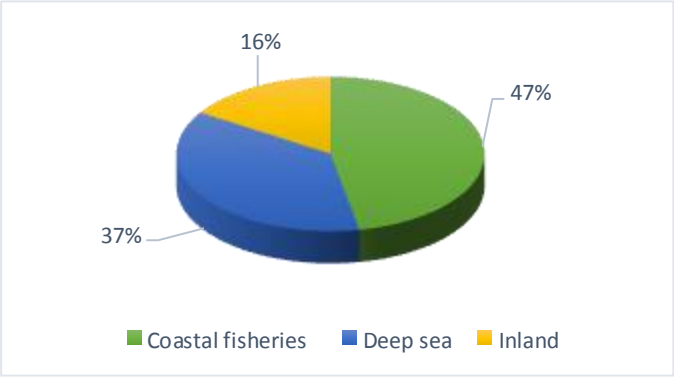


Figure. 1.1.1 Contribution of sub section to the fish production

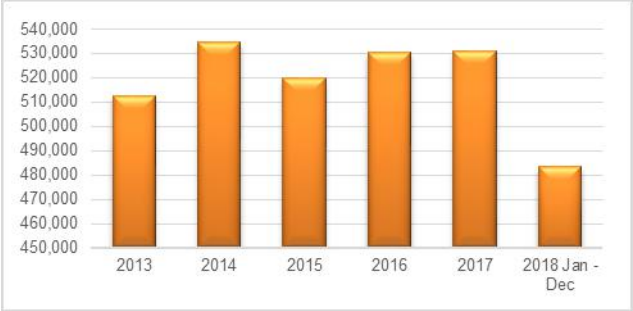


Figure. 1.1.2Annual Fish Production (2013 - 2018 Jan -Dec) (MT)

Source: Statistical Unit, MFARD

1.2Marine Fish production (coastal, offshore/deep sea)

From January-December 2018, Deep Sea fish production was 190350Mt and Coastal fisheries was 249,020 Mt accounting for a total marine fish production of 439370Mt.

Table 1.2.1: Marine Fish production - (Mt.)

Duration	Deep Sea	Coastal	Total
2018 Jan-Dec	**190,350**	**249,020**	**439,370**

1.3 Inland and Aquaculture production

During January to December 2018, total inland fish production was 87690Mt and its contribution was 16.6% to the total fish production.

Table 1.3.1 : Inland and Aquaculture fish production – Mt

Duration	Inland	Aquaculture	Shrimp	Total
2018 Jan-Dec	**71,020**	**8490**	**8180**	**87,690**

1.4 Developing Inland and Aquaculture fish production

NAQDA breeding centers and community-based fish seedling production units engage in the production of fish fingerling, freshwater and brackish water shrimp and post-larvae. Accordingly, NAQDA and DFAR have implemented projects for non-traditional fish farming such as sea-bass farming, fattening of crabs, fattening of Sea-Cucumber in Cages and Milkfish farming in abandoned shrimp farms in Gampaha, Batticaloa, Mannar, Galle, Trincomalee, Puttalam and Kilinochchi districts

1.5 Increasing the fish production from lagoon fisheries

An amount of Rs 1000 million has been allocated for the Lagoon Development Project 2018 for lagoon conservation with sustainable management of lagoon eco systems while uplifting the living standards of the fishermen community. Accordingly this project is implemented by the Ministry in collaboration with affiliated institutes. 18 identified lagoons will be developed under this project and have been priotirized. Approval of the Cabinet of Ministers has been

obatained for this as a special project and scheduled to be implemented having recruited officers to a Project Implementation Unit.

1.6 Increasing per-capita fish consumption

Increasing fish consumption paves way for the public to minimize nutrition deficiencies, eradicate malnutrition and improve good health. Per capita fish consumption in the year 2017 was 45.4 per day and the amount has increased up to 46 g within the time period from January to December 2018. This was made possible due to the local marine and inland fish production and imported fish products.

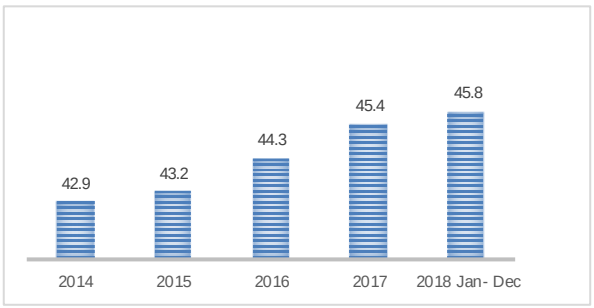


Figure: 1.6. Annual Per capita fish consumption (2014 – 2018) g/ day

Source: Statistical Unit, MFARD

1.7 Increasing Value Added Fish Products

Production of canned fish, dried fish, sprats and Maldive fish supports employment generation and increasing of Per capita fish consumption. The total consumption of canned fish per day amounts to a number of 190,000.00. Six canned fish factories with a per day production capacity of 95,000 canes have been established for the fulfillment of domestic canned fish requirement. The total production of those factories per day is 23,396 cans.

During January to December 2018, dried fish production was 61,250 Mt and a quantity of 32,176 Mt of dried fish and Sprats have been imported for consumer requirements

Figure 1.7.1 Fish products for Import

1.8 Import of Fish and Fishery Products for domestic fish consumption requirements

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. Out of the total import quantity, 40% is covered by Dried fish and Sprouts. Larger part of the import fish is value-added and re-exported while the rest is used for domestic consumption. From January to December 2018, a quantity of 84,463Mt has been imported as fish and fishery products amounting to a value of Rs. 32726Mn.

1.9 Supply of fish at an affordable price

CFC, being the key governmental body in fish marketing, is engaged in marketing fresh and quality fish to the public at an affordable price. CFC fulfills the duty of selling fresh fish at affordable prices through their fish sales points and mobile fish selling services with a view to reducing the increasing cost of life.

In addition, the Peliyagoda fish market complex and the Trincomalee fish market complex give considerable assistance in strengthening the fish distribution network.

1.10 Supply of infrastructure to obtain an increased marine fish production

The CFHC and the Fishery Harbours and Anchorages Project facilitate the fisher community to deploy an efficient and productive fisheries industry through the construction of fishery harbours, fish landing sites, ice factories, cold rooms and other basic infrastructure to the effect that required avenues are newly constructed and developed to the level that the target of producing quality fish can be achieved through minimized post-harvest losses. Currently, development of 13 fishery harbours is underway.

1.11 Provision of infrastructure for the development of inland fish harvest

NAQDA has taken measures to develop the fishery infrastructure for the fish seedling production in aquaculture development center with a view to enhancing culture based fisheries industry.NAQDA is functioning freshwater breeding centers with high capacity in Dambulla, Inginiyagala, Udawalawa, kalawewa, Iranamadu, and Muruthawela. The Udawalawa breeding center was newly established and set in to motion in 2017. Also, the Sewanapitiya aquaculture development center initiated its production in 2018. Further, actions were taken to upgrade the hatcheries and increase the number of fattening ponds in Dambulla, Inginiyagala, Udawalawa and Kalawewa aquaculture centers. Therefore, a production of 150 million fish fingerling is expected to be produced by the year 2020.

1.12 Fish and Fishery Product Exports

The fisheries sector through the exports of fish and fishery products, ornamental fish and sea weed contributes considerably to the growth of national economy. 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 import countries.

From January to December in 2018, total export quantity was 27,998 Mt and the total export value was 47,949.

Table 1.12.1: Export quantity and export value (2017 - 2018 December)

Item	Export Quantity (Mt)		Export Value (Rs. Mn)	
	2017	2018 Dec.	2017	2018. Dec.
Live fish	-	-	2,288	2,626
Prawns	1,844	1,984	3,213	3,485
Lobster	224	231	782	971
crabs	1,819	1,401	3,336	4,316
Sea Cucumber	150	248	494	1,400
Other Mollusca	3,152	3,672	2,648	3,397
Shark	52	86	214	339

Shark Maws	7	5	36	68
Chank & shells	355	329	147	123
Processed fish	16,250	18,031	24,690	29,759
Other	971	2,011	1,382	1,465
Total	24,827	27,998	39,230	47,949

Source: Statistical Unit, MFARD

1.13 Fisheries Social Development

With the objective of developing social development of the fishermen community, the Social Development Division has implemented multiple projects related to introduction of new technology, coastal rehabilitation and resource management, housing and livelihood development, Wewak Samanga Gamak programme and lagoon development.

Table 1.13. 1 Project for the social development of fisheries community

Implemented Development Projects		
01.	Housing constructions (renovations)-marine sector - 270	Hambantota- 03, Trincomalee- 04, Galle-11, Ampara- 81, Mannar- 50, Puttalam-71, Batticaloa- 50
02.	Housing constructions (renovations)-Inland Sector- 536	Trincomalee- 26, Ampara- 37, Puttalam-21, Batticaloa-22, Monaragala– 127, Kandy- 12, Nuwara Eliya– 17, Matale– 19, Rathnapura – 08, Anuradhapura – 42, Polonnaruwa – 59, Kurunegala- 35, Mullaithivu– 17, Badulla-38, vavniya-07, Hambantota-49
03.	Sanitary Facilities - (New) - Marine Sector - 883	Trincomalee- 169, Ampara- 72, Kalutara- 20, Hambantota- 16, Gampaha- 91, Matara- 42, Puttalam - 376, Galle-39, Mannar – 10, Jaffna – 48
04.	Sanitary Facilities (Renovations) - Marine Sector - 434	Ampara- 54, Hambantota- 11, Matara- 44, Puttalam - 43, Galle-23, Trincomalee – 02,Mannar – 16 Gampaha – 48, Jaffna – 193
05.	Sanitary Facilities - Inland Sector -115	Ampara- 09, Batticaloa-10, Trincomalee- 05, Badulla-05, Kandy- 03, Nuwara Eliya- 08, Rathnapura- 04, Anuradhapura- 08, Polonnaruwa – 01, Kurunegala-05, Vavniya-01, Monaragala - 16, Matale – 06, Puttalam - 08, Mullaithivu – 01, Hambantota-28
06.	Road Development - 143	Hambantota-47, Ampara- 07, Batticaloa - 05, Trincomalee- 23, Badulla - 02, Monaragala– 04, Nuwara Eliya– 04, Matale– 01, Rathnapura – 05, Anuradhapura – 02, Polonnaruwa – 07, Puttalam - 24, Kilinochchi- 02, Mullaithivu– 02, Matara- 02, Galle – 05, Jaffna - 01
07.	Multipurpose buildings - 06	Batticaloa- 02, Kurunegala – 01, Mannar – 01, Vavniya - 01, Puttalam – 01
08.	Sun shading - 483	Puttalam – 480, Gampaha- 02, Mannar- 01
09.	Pre School - 03	Jaffna- 01, Monaragala – 01, Kurunegala - 01
10.	Net Mending Centers - 01	Jaffna- 01, Monaragala- 01
11.	Electricity Supply • LED - 01 • With water - 02 • Wiring - 01 • Electricity - 04	 Trincomalee- 01 Trincomalee- 01, Puttalam – 01 Mannar - 01 Trincomalee- 02, Galle-01, Batticaloa – 01
12.	Community Centers - 17	Kalutara- 01, Mullaithivu – 01, Kilinochchi – 02,

		Anuradhapura – 01, Matale – 01, Hambantota– 03, Batticaloa– 01, Polonnaruwa – 01, Nuwara Eliya– 01, Kurunegala – 01, Vavniya – 01, Monaragala-03
13.	Training Programmes-01	Colombo-01
14.	Culvert - 14	Polonnaruwa – 02, Puttalam – 06, Hambantota – 05, Batticaloa - 01
15.	Water Treatment - 02	Monaragala – 01, Anuradhapura - 01
16.	Extension of water ways - 02	Puttalam – 01, Mannar - 01
17.	Provide water facilities- 02	Puttalam – 01, Rathnapura - 01
18.	Drinking water wells - 01	Kurunegala - 01
19.	Farming wells - 02	Batticaloa - 02
20.	Thelawilla - 01	Puttalam - 01
21.	Sports items - 01	Kilinochchi - 01
22.	Safety gates -01	Hambantota - 01
23.	R.D.S. Buildings - 01	Kilinochchi - 01
24.	Rest room for Fishermen - 05	Mannar - 02, , Jaffna - 02, Kandy 01
25.	Library Buildings - 01	Batticaloa- 01
26.	Fish Market Centers - 01	Jaffna - 01
27.	Public Buildings - 02	Kilinochchi - 01, Jaffna 01
28.	Aquaculture Centers - 07	Hambantota– 02, Batticaloa– 01, Puttalam - 03, Mannar - 01
29.	Grain Drying Center - 01	Mullaithivu – 01
30.	Children Day Care Center - 01	Gampaha- 01
31.	Safety wall - 01	Kilinochchi – 02
32.	Safety Fence – 01	Puttalam – 01
33.	Reservoir renovations - 04	Hambantota – 03, Monaragala – 01
34.	Sewa Piyasa Building - 04	Anuradhapura – 02, Matale - 01, Monaragala-01
35.	Health Centers - 01	Batticaloa – 01
36.	Side drains - 01	Nuwara Eliya- 01
37.	Side wall - 03	Galle - 01, Mullaithivu - 01, Hambantota- 01
38.	Jetty – 05	Galle – 04, Kalutara – 01
39.	Landing site - 01	Gampaha – 01
40.	Reservoir renovations - 19	Matara – 06, Gampaha – 08, Kalutara – 02, Kegalle – 03
41.	Lagoon cleaning - 27	Puttalam- 19, Gampaha – 08
42.	Lagoon Developing	Puttalam- 02
43.	Bridges	Puttalam- 01
44.	Open Yards	Jaffna- 01
45.	Children Park	Puttalam- 01

1.14 Project on Formulation of National fisheries and aquaculture policies with Technical Assistance from Norway

Introduction

The above 3 years project started on 01.01.2017 with the cabinet approval.The norweigian government offer Norweigian Krone 8.3 mn (Rs 150Mn) as a grant and agreed to offer additional provisions for 2019 if necessary at the project meeting held in April 2018.The consultancy servives for the implentation of the project provide by Ministry of trade, industry and Fisheries, Norway.

Progress

1. National Fisheries and Aquaculture policy

Formulation of the policy was started in January 2017 and it took nearly one year to prepare the final draft after having discussion with other stakeholders. First draft prepared after having discussions with private sectors stakeholders including Fisheries representatives, aquaculture representatives, fish salesmen, fish importers, fishing vessel owners, fishing gear producers ,importers, representatives of fisheries corporations as well as Fisheries officers, researchers, university lecturers, representatives of Non-Government Organizations, relevant ministries,departments.This discussions were held at different locations including Putthalam, Negambo, Trincomalee, Baticaloa, kilinochchi, Kalawawa, Udawalawa, Matara and Galle. First draft forwarded to get the opinion of provincial council members and members of the parliament and second draft was prepared based on their opinions. Copies of the second draft have been published Island wide for the information of the general public .Measures had been taken to present Final draft in parliament after receiving approval. However it had not been able to present in parliament due to political turmoil that prevailed in the end of 2018.At present Actions have been taken to present the final draft in parliament.

2. Developing management skills

In 2017, two Legal officers of Fisheries and aquatic resources development and National aquaculture development authority were sent for training on fisheries law at legal office, World Food and Agriculture organization, Rome for the period of 3 months. In 2018, legal officers of the Department of Fisheries and Aquatic Resources and Attorney Generals Department were sent for the above training program.

3. Investment Promotion

In the year 2017, the then Secretary of the Ministry and the Director General of NAQD took part in the conference on Fisheries sector Investment held in Norway and relevant totes and Power Point Presentations were prepared by the Project. The seminar was held in Sri Lanka in 2018 and facilitate investors from Norway and Sri Lanka to meet and discuss. Two investments projects from Norway have already been implemented in the field of aquaculture.

4. Increasing the Regional Corporation

Since there is a possibility to cause dearth in the fisheries recourses as all the coastal territories located around bay of Bengal competitively move to reap the same fishing resourses, a two day workshop of fisheries resources management was held in Colombo under SDG 14 with the participation of representatives from all states, relevant international organizations (eg.FAO) and the representatives from the kingdom of Norway. Representatives from Maldives, India, Bangladesh, Myanmar, Indonesia, Thailand, Sri Lanka &Norway participated to the event. The chief guest of the seminar conducted with the assistance of the Ministry of foreign affairs was the Hon. Minister of finance & Mass media. Special guest of honor of the event was the Hon. State Minister of foreign affairs for the kingdom of Norway. On. Minister of fisheries, the Secretary of the Ministry of foreign affairs, Norwegian ambassador and several other dignitaries were also participated in the event. Arrangements have been made to implement the decision taken at this seminar.

Figure 1.13. 1. Fisheries resource management workshop - 2018

5. Compilation of new laws.

As the exiting fisheries Act and Aqua culture Act does not provide provisions required implementing the new policy, two new Acts are being complied with the approval of the cabinet of Ministers. The Act prepared by the project will be referred to the discussion to committees appointed with the approval of the cabinet of Ministers. The project will provide consultancy services to prepare new required regulations upon the receipt of the approval of the cabinet of Ministers to the new to Acts.

6. Provision of scientific Information for the Management.

In the mid 2018, having deployed a modern recourse expedition vessels of the world, the Dr.Prijatop Nansen ship, the fisheries resources were explored within the exclusive economic zone of Sri Lanka and the report of the same is to be published on 25.10.2019. The preparations of fisheries management programs have been commenced based on the details obtain through the report.

The activities of 2019

Following activities are scheduled to be carried out for the year 2019.

- Compilation of required regulations after preparation of fisheries and aqua culture Acts.
- Preparation of proper Master Plan for Fisheris sector
- Provision of training for another team in India for widening the officers' management capabilities.
- Introduction of temporal and spatial planning for the fisheries sector.
- Planning of a program which is required to convene a regional discussion on Regional Corporation for SDG 14
- Implementation of a training programme on scientific fisheries Management.
- Preparation of a visit in Republic of Norway on fisheries activities on behalf of the team of policy officers in the Ministry.

The progress of the grants provided under the Indian Government Aid

Upon the concurrence of the Indian Government to grant an aid amounting to Rs.300 million under the Indian Grant Assistance for the development of fisheries and other sectors in the vicinity of Hambantota District, 7000 bicycles, 1000 sewing machines and 60,000 mamoty blades have been provided to the fisheries and agriculture communities in the Hambantota district by the said project.

And also an 100 million Rupee aid has been granted by the Indian government under Indian Grant assistance to provide 150 fishing tool units for the fishermen in mullativu District. 150 Boat engines, 150 19 ½ feet fiberglass boats have been handed over to the beneficiaries (fishermen) after handing over the same to the District Secretary, Mullativu

Special Occasions in 2018

Foundation stone laying ceremony for the development of Miladi Fishery harbour(2018.08.22) under the patronage of His Excellency President

Providing fishing inputsfor for fishermen in Panama and Pothuwil,Improve Road acess

Development of Acess Road in Kalmunai Saindamadura fishery harbour

Payment of compensation to families of Fishermen went missing and passed away

Housing aid-Hambantota DS Division

Unveil newly built Fishery office - Kilinochchi

Foundation stone laying ceremony ,Arachchikattuwa, Sapatthu palama under “Wawak samaga Gamak” Program

Aquaculture Investment forum --2018

02. Department of Fisheries and Aquatic Resources (DFAR)

Our Vision

To provide an optimum contribution to the national economy through strengthening the socio–economic status of the fisher communities while maintaining the fisheries and aquatic resources in a sustainable manner.

Our Mission

Management of fisheries and aquatic resources by adopting new technologies in compliance with the national and international laws and treaties for the productive contribution to the Sri Lankan economy through sustainable development of fishing industry.

Scope

- Management of Sri Lankan fisheries and aquatic resources complying with the local and international rules, regulations and orders.
- Introduction of latest technology to the development of the fisheries industry
- Encouraging local and foreign investments in the fisheries sector
- Ensuring the socio-economic security of the fishermen community
- Quality controlling and minimizing post-harvest losses to obtain an increased fish harvest with excellent quality.
- Ensuring the safety at sea of fishermen

Department of fisheries and aquatic respurces is vested with thr responsibilities of management, development, conservation and regulation of fisheries and aquatic resources in Sri Lanka. The main duty of the department of fisheries and aquatic resources is to conservation of fish resorces and aquatic environment in a sustainable mannner in compliance with the fisheries and aquatic resources act no 02 of the 1996 and regional and international conventions.DFAR has implemented numerous programs to uplift socio economic status of fisher folk and provide high contribution to the national economy.Marine fish contributed 86% of the total fish production. Coastal fish catch contributed 53% followed by fish catch in international waters contributed 33%.

Progress of the development programs implemented by the DFAR are as follows

2.1 Introduction of cutting-edge technology for multiday fishing vessels

50% government concession granting programme is in operation for the purpose of increasing facilities of multiday fishing vessels under the project of introducing cutting-edge technology for multiday fishing vessels to obtain an increased fish harvest with excellent quality. Under this programme 156 loglines and 47winches are granted while upgrading the cooling system of 20 vessels. Accordingly, suitable beneficiaries were selected and tender was awarded. The total amount of provisions to be spent for this progress is Rs.102.355 Mn.

Similarly, provisions amounting to Rs.400 Mn have been allocated for the manufacturing of fishing vessels with modern technology and more than 55 feet long up to now, Technical Evaluation Committee recommendations have been forwarded to the approval of the Cabinet of Ministers.

Figure 2.1 Production of more than 55 feet fishing vessels

2.2 Diyawara Piyasa Housing and Sanitary programme

This programme was initiated with a view to providing housing and sanitary facilities for the fishermen families. The amount of provisions allocated to DFAR in 2018 is Rs 52.7 Mn

- Rs 100,000.00 is granted per each housing unit and the no of beneficiaries is 427
- Rs 30,000.00 is granted for construction of each lavotary while Rs 15000 is given for lavatory renovations and accordingly, funds.

2.3 Lagoon Development

With the objective of strengthening the fisher community, Sum of Rupees 92 million has been allocated for various infrastructure development programs and sum of Rupees Rs. 92 Million has been released to District Secretariats for implementation of 88 projects encompassing all fisheries Districts. The constructions relating to access roads / repairs, provision of shades for Beacon lamps at Landing Sites, Community Centers and Mending centers are expedited under these projects.

Figure 2.3.1 Contruction of multipurpose building at Thiyawarthanwan

Figure 2.3. 2 Construction of sunshades at Kurakkanhena

Figure 2.3. 3 Concreating road form Anakutthiya to Manativ Junction

Figure 2.3. 4 sunshades for Ammathottam landing site

2.4 Lagoon Development

A Lagoon development program is in progress ensuring sustainable management and conservation of lagoons together with enhancement of living standard of the fisher community dwelling in surrounding areas of the lagoons, with the allocation of sum of Rs. 390 by the Fisheries and Aquatic Resources Development Department. Accordingly, 18 lagoons, out of 116 lagoons identified in Sri Lanka, are expected to be developed under this program. The lagoons are prioritized as mentioned below.

- Puttlam Lagoon
- Rekawa Lagoon
- PanamaLagoon
- NayaruLagoon
- ArugambeLagoon

The following activities are expected to be expedited during the course of this year under this programme.

I. Demarcation of Lagoons

The number of 10 lagoons selected on priority basis is scheduled to be surveyed & demarcated at the expense of 30 million Rupees. Measures have been taken to purchase total number of 19,888 boundary posts for this purpose, within this year.

Figure 2.4. 1 Boundary posts

II. Provision of environmental friendly fishing gear to replace illegal nets

Under this program, it has been planned to purchase fishing gear worth Rs 55 million for distribution among 1391 selected beneficiaries. The recommendation of the technical Assessment Committee has been obtained to expedite Procurement process.

III. Stocking of fish fingerlings for enhancement of the volume of lagoon based productions

148500 fish fingerlings of Tilapia & 10,821,500 Prawn Larvae were stocked at a cost of sum of Rupees 29.187 Million in 13 Lagoons .

Figure 2.4. 2 Stocking of fish fingerlings

IV. The Infrastructure projects operated under lagoon development

Various programmes are expedited to uplift the sanitary facilities and development of access roads of the fisher community with the allocation of sum of Rupees 195 Million. 1197 infrastructure development programs have been implemented in Fisher villages.

Livelihood Develoment Programmes

- Technical traning on producing Maldives fish has been given to selected families with the objectives of generating income of fishing families in Puttalam and Matara district.

- Tranning and Assistance for the fisheries family memebers have provided under lagoon development programs as fallows.

Table 2.3. 1 . Project under lagoon development programs

Proposed Project	Selected No of Beneficiaries	Expected expenditure Rs. Mn
Cultivation of Sea gras	186	34.00
Sea weed farming Farming	190	32.65
Post Harvest technology Project (Putthalam)	60	1.32
Facilities for producing Maldives fish	156	3.69
Total	592	71.66

Figure 2.4. 3 Technical tranning workshops

Figure 2.4. 4 Facilities for producing dry fish

The Department of Fisheries & Aquatic Resources Development has issued licenses relating to sustainable management of Fisheries Resources as mentioned below.

Table 2.3. 2. Issuance of licenses for fishing operations

Activity	**Annual Target**	**Progress (As at 2018.12.31)**	**Progress** %
Registration of Fishing vessels **(** Preliminary registration & Renewals)	57098	53685	94
Issuance of operational licenses (Marine)	54354	44949	82.7
Issuance of operational licenses (high seas)	1500	1414	96
Issuance of Skipper License	1500	2552	170
Issuance of operational permit for beach Seine	1244	496	40
Conduct of Training & Awareness Programmes Fishermen/Fisheries Officers	25	18	72
Issuance of Fisheries Identity cards	1700	1643	96.6
Issuance of export permits for Ornamental Fish	75	55	73.3
Issuance of import permits for Ornamental Fish	70	51	72.8
Issuance of export permits for Lobsters	130	101	77.7
Issuance of permits for possession of Lobsters	30	07	23
Issuance of export permits for Chanks	20	24	120
Issuance of permits for possession & transportation of Chanks	40	46	115
Issuance of export permits for sea cucumbers	50	66	132
Issuance of permits for possession & transportation of Sea Cucumbers	70	76	108.5
Export permits to cultured marine organism on artificial substrates	10	02	20
Transport permits to sea shells for ornament	50	39	78
Permits of transshipment, landing and ports services	50	105	210

Institution of legal action against engagement infishing activities contrary to the provisions of Fisheries & Aquatic Resources Act (Number of cases)	200	135	67.5
Issuance of permits for imports ,exports and Re-exports of fish & fish related produces	200	195	97.5

Issuance of permits by the Quality Control Division relating to fish exports, maintenance of the quality and inspections. The progress achieved in that regard is as mentioned below.

Table 2.3. 3. Progress of issuing license to keep standardars to ensure fish quality foru the exportation under the quality control division

Activity	Annual Target	Progress (As at 2018.12.31)	Progress %
Issuance of approval for Institutions of Fish processing and Laboratories	60	61	101.6
Issuance of Health certificates for European Countries	17000	22695	133.5
Issuance of Catch Certificates	10000	11441	114.4
Issuance of Health certificates for Non-European Countries	18000	20122	111.7
Inspection of Laboratories	06	05	83
Inspection of fish processing Institutions	180	174	96.6
Inspection of fish packing centers	21	21	100
Inspection of collecting centers of Lobsters	12	12	100
Inspection of fish unloading & fishery Harbours	16	09	56.2
Inspection of local & Foreign fishing vessels	100	71	71
Inspection of officials samples of fish processing centers(Water, Ice, Products)	500	330	66
Inspection of water & Ice of Fishery Harbours	10	10	100
Inspection of residues of Shrimp farms (Anti Biotic/ Malachite Green / Pesticides Residue Etc)	60	60	100

Random Sensory Evaluation Test	60	64	106
Inspection of Shrimp farms	50	40	80
Spot inspection of stock of Exports fish stocks at the AirPort	300	202	67.3

03. National Aquaculture Development Authority

Vision

To be an apex body in the region responsible for sustainable development and management of aquaculture and inland fisheries to ensure food security in order to improve the quality of life of the people

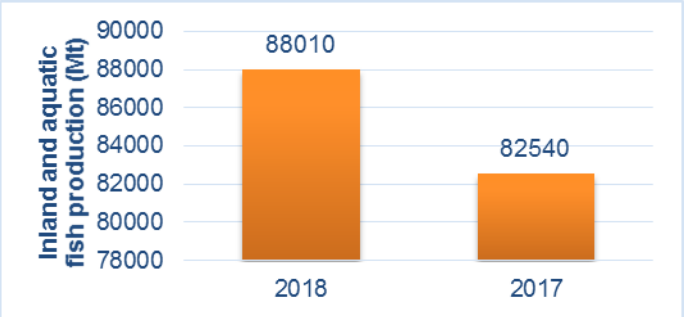
Mission

To contribute to the improvement of the socio-economic conditions of rural societies through alleviation of poverty by increasing freshwater and brackish water fish production and introducing new technologies for utilization of aquatic resources for small, medium and large scale enterprise development

Functions

- Develop aquaculture and aquaculture operations and culture based farming in perennial and seasonal reservoirs, with a view to increase fish production and fish consumption
- Generation of employment opportunities through the development of inland and coastal aquaculture.
- Promote the farming of high valued food fish, ornamental fish and aquatic plants for export
- Optimum utilization of aquatic resources in an eco-friendly manner
- Promote, facilitate and establish small, medium and large scale investments in aquaculture
- Management, conservation and development of fishery industry based on aquaculture and aquatic resources in order to protect bio diversity
- Act as a businessman, facilitator and distributor to import, export and distribute aquatic resources
- Formulation and implementation of plans for the development of fishery industry based on aquaculture and aquaculture related operations.
- Conservation of bio diversity

Inland fish production and Aquaculture Poduction (Mt)



Fish production shows an increment of 7% in 2018 compared to 2017

Stocking of fish fingerlings, fry 4 fresh water prawn post larvae (Mn)

Stocking of Fish fingerlings, fry and freshwater prawn post larvae		
	2017	**2018**
Fish fingerlings(Mn)	81.17	110.51
Fresh water prawn post larvae(Mn)	60.39	73.76

Stocking of fish fingerlings, Frys and prawns post larvae 2018

Fingerlings –. 14.54 Mn
Frys – 26.07 Mn
Inland prawn post larvae–මිලි. 44.88

Stocking of fish fingerlings

NAQDA is responsible for the fish seed production thus accelerating the fish production by producing fish frys/fresh water post larvae.

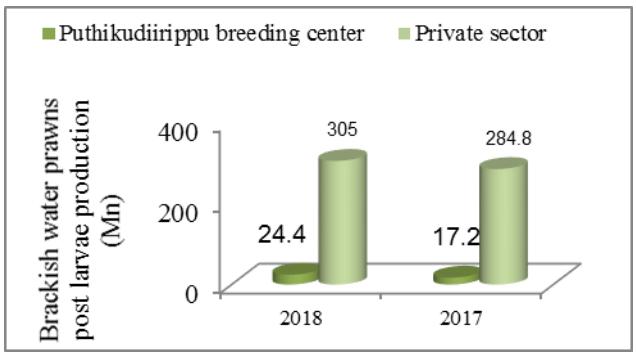
Stocking of fish fingerlings

Inginiyagala Center

Seed Production in Breeding Centers - 2018	
Post larvae	158.57 Mn
Fry	182.53 Mn
Fingerlings	48.20 Mn

Total fish fingerlings production from Aquaculture centers, Community based fish seed production units and private pens and cages	
2017	**2018**
82.92	111.63

Brackish water prawn post larvae production



Brackish water shrimp hatchery at Pudukudiirippu.

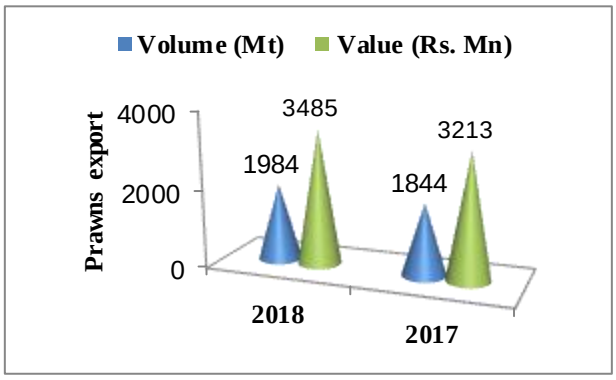
The only breeding centre established in the Eastern province as a public private partnership. This hatchery will supply brackish water prawn post larvae for the development of prawn industry in Baticaloa

Brackish water prawns

Brackish water prawns

2017	2018
4630 Mt	8181 Mt

Brackish water shrimp-Export volume and value



Maximum yield has been obtained in North western province. Measures have been taken to increase number of water refinery systems and biologically sustain farms under Intensive farming. Moreover NAQDA has introduced Pacific milk fish (*Litopeneaus vannamei*) which shows high productivity and high growth rate in order to develop brackish water prawns farming.

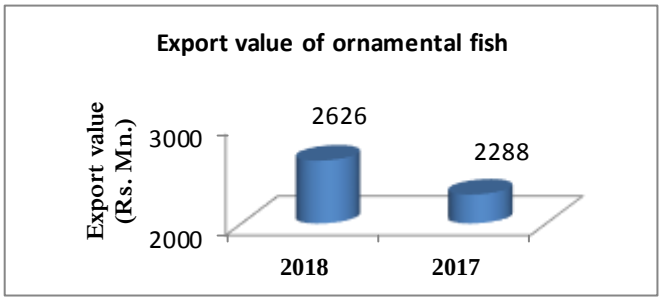
Ornamental fish and Aquatic plants

NAQDA is involved in development and exports of ornamental new fish strains and aquatic plants, development of new technology, provide brood fish, diseases diagnosis, provide training and technical assistance.

2018	
Ornamental fish sales	Mn. 3.16
Supply of brood fish	118,043
Number of trainees	1403

A tissue culture laboratory established at Rambodagalla is involved in application of tissue culture techniques for ornamental fish and aquatic plants breeding.The main objective of this is to earn foreign excange. Further 88,086 numbers of aquatic plants were produced in 2018

and 63,500 numbers of aquatic plants were exported.



Sea Weed Farming

Breeding and Farming of Sea Cucumber

Sea cucumber farming is initiated in Mannar,Kilinochchi and Jaffna districts

The project carried out with the community participation in Jaffna, Kilinochchi, and Mannar and Putthalam districts. Private sector also involved in the program. 322Mt of sea weeds were produced in 2018.

2018	
Sea cucumber fingerling production	105,000
Sea cucumber Harvest	Mt196

Crab Breeding center

Two crab breeding centers operated in Iranawila and Ambakandavila of Putthalam district. In 2018, 89350 Crabs were produced.

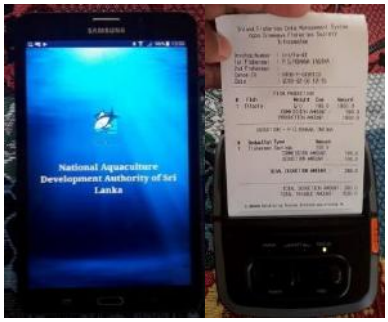
Sea Bass Farming and Breeding

Private sector is involved in Sea bass farming in Gampaha, Batticola, Galle,Trincomalee and Putthalam district .Further Sea Bass farming project initiated by a private company with an investment of USD 4 Mn commenced operation in Trincomalee sea.

2018	
Sea Bass fingerling production	350,000
Sea Bass fingerling stocking	147,820
Sea Bass fingerling harvest	Mt 340

Cluster Fish farming in ponds in estate sector

This program is operated in 8 estates in Kandy and Nuwaraeliya districts with the objectives of providing inland fish for estate sector people with optimum utilization of aqua culture resources, and providing extra income generation for estate sector workers.



Inland Fisheries Information System – INFIS

First ever Inland Fisheries Information system (IFIS) in the Asian region

Sudara Thotupola program

Sudara thotupola program is being implemented with the objective of providing healthy and high quality fish catch for retailers and wholesalers. Under the program, Fishermen engage in fisheries in reservoirs with culture based fisheries tend to locate their fishing vessels in a specific location and weigh fish catch and computerized data in the same place.

Construction of new aquaculture Development centers and improving facilities of existing centers

Two aquaculture development centres under construction in order to provide fish fingerlings for inland reservoirs for the improvement of rural economy and nutritional status of the community.

- **Establishment of aquaculture centre, Polonnaruwa.**

This project is funded by 'Pibidemu Polonnaruwa' district development program. Expected production of the project is 15 Mn of fish fingerlings and total estimated cost is Rs 400 Mn

- **Aquaculture development centre at Muruthawala –Phase II and Phase III**

Construction of phase ll of aquaculture development centre at Muruthawala, hambanthota was completed and phase lll of the construction has already started. Total estimated cost for the project is Rs 400Mn and total expected fish fingerlings production is 15Mn.

- **Expansion and development of facilities in existing aquaculture development centers**

Expansion of facilities in aquaculture centers at Dambulla, Inginiyagala, kalawewa, Iranamadu, udawalawa under "National food production program 2016-2018".Total allocation for the program is Rs 181.5 Mn.

- **Establishment of Genetic Improvement centre ,Dambulla**

The objectives of the projects are to Increase fish production through the breeding of local fish species with high nutritional value, conservation of endangered and native fish population, stocking fish species with higher growth rate ex- (Ophiocephalusstriatus), (Walagoattu), Production of new ornamental fish strains with different colour patterns and colour intensity with the application of gene technology for export. Construction of the unit is in progress and estimated cost for the construction is Rs 150Mn.

Construction of Sea cucumber breeding centrer in Mannar

Estimated cost for the project is Rs 250 Mn. The objective of the project is to supply sea cucumber brood stock in order to popularize sea cucumber farming among the local community.

Construction of Ornamental Fish Breeding Centre, Polonnaruwa

Objectives of the project are to supply high quality brood stock, Increase foreign exchange earnings by accelerating production, and uplift livelihoods of the community. Total estimated cost for the project is Rs 250 Mn.

Construction of crabs city and Aquaculture Park

Objectives of the construction are to create conducive environment for aquaculture investment, increase aquaculture production in a sustainable manner, develop regional economy, increase export revenue, and generate direct and indirect employment opportunities. 1728ha of land in Manthai,Mannar have been identified for the construction. Further 242ha of land from Hambanthota and 200ha from Baticoloa have been identified for the crab city. It is expected to increase aquaculture production by 9075 Mt and generate 4825 direct and indirect employment opportunities from this project.

Construction of Marine Ornamental Fish Breeding Centre, Bangadeniya, Putthlam

Objectives of the project are to increase product range of ornamental fish and enhance foreign exchange earnings by accelerating production. Estimated cost of the project is Rs 250Mn.

Construction of milk fish hatchery

It is expected to develop milk fish farming to save the foreign exchange involved in imports of fish bait for tuna. Total estimated cost for the project is Rs 250Mn.

Wet laboratory

The laboratory was established at Ornamental Fish Breeding And Training Center at Rambadagalla with the objectives of producing Chlorella vulgaris plant plankton and Moina plant plankton.It is expected to cut down production cost of ornamental fish farmers and save the foreign exchange in importing Artemia Pla

Purchasing of 03 machines to remove dangerous aquatic plants and contaminants in reservoirs

Measures have been taken to purchase 03 machines at a cost of Rs 161 Mn to remove dangerous aquatic plants and contaminants. As a result, fishing industry in reservoirs has been affected and removing of aquatic plants will help to resume fishing industry. It is expected to increase annual inland fish production by 30000Mt and it will contribute to the rural economy by Rs6000Mn.

Livelihood development and shelter program

Under the Livelihood development and shelter program, it is expected to carry out Sea bass farming in cages, development of aqua culture systems,sea weed farming, small scale ornamental fish farming, food fish farming in ponds, small scale integrated fish farming,development of ornamental fish farming, milk fish farming for baits, implementation of 'Diyawara piyasa' program in order to uplift living conditions of fishing community and generate employment opportunities.

Projects funded by ADB

- Construction of sea cucumber breeding centre at Mulative
- Construction of tissue culture laboratory for sea weeds at Chullipuram,Jaffna
- Construction of crab breeding centre at Nayakkuli, Mannar
- Coastal aquaculture development and training centre
- Other activities

Other Activities

Make Investors' awareness on aquaculture

Investors Forum for Aquaculture 2018 was held on 20th August 2018 at Water's Edge Battaramulla, organized by National Aquaculture Development authority of Sri Lanka together with Ministry of Fisheries and Aquatic Resources Development and Rural Economy in order to promote foreign and local investments for aquaculture.

Conference on Re-circulating Aquaculture System (RAS) Performance in Sri Lanka organized by Freshwater Fisheries Research Center,China

A delegation from the Freshwater Fisheries Research Center (FFRC) of Chinese Academy of Fishery Sciences from Peoples Republic of China visits NAQDA on 16th July 2018 for the conference on Re-circulating Aquaculture System (RAS) Performance in Sri Lanka.This conference helps develop the aquaculture in Sri Lanka.

Preparation of Inland fishery and aquaculture development plan in Monaragala

Milk fish farming for bait

The Agreements signed between NAQDA and Milk fish Farmers on 24th July 2018 to commenced Milk Fish Farming for Bait in Puttalam District under Livelihood Development Programme.

Workshop on Preparation of strategic plan for the development of ornamental fish industry

Jalajeevi Udanaya-2018

National Aquaculture Development Authority of Sri Lanka together with the Ministry of Fisheries and Aquatic Resources Development and Rural Economy organized the ' Jalajeevi Udanaya – 2018' awards ceremony under the patronage of His Excellency MaithripalaSirisena, President of the Democratic Socialist Republic of Sri Lanka with the participation of Hon. GaminiWijithWijayamuniZoysa, Minister of Fisheries & Aquatic Resources Development and Rural Economy, Hon. DilipWedaarachchi, State Minister of Fisheries & Aquatic Resources Development and Rural Economy & Hon. Ameer Ali, Deputy Minister Fisheries & Aquatic Resources Development and Rural Economy and held at the Bandaranaike Memorial International Conference Hall on 10th October 2018.

Outstanding Fisherman and aquaculture farmers who excel in their field were received awards from the president

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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.

Functions

- Ensuring the application and utilization of scientific and technological expertise for the implementation of the national development program
- Promotion and conducting research activities directed towards the identification, assessment, management, conservation and development of living and non-living aquatic resources
- Providing expert knowledge and coordination for the utilization, management and development of Aquatic Resources
- Oceanography and Hydrography
- Conduct research on processing, preservation and marketing of fish and aquatic products
- Study on the social and economic aspects of the fishing industry
- Improvement and development of fishing craft, fishing gear and equipment, and fishing methods
- Collection, dissemination and publication of scientific information and data regarding the aquatic resources
- Provision of trainings

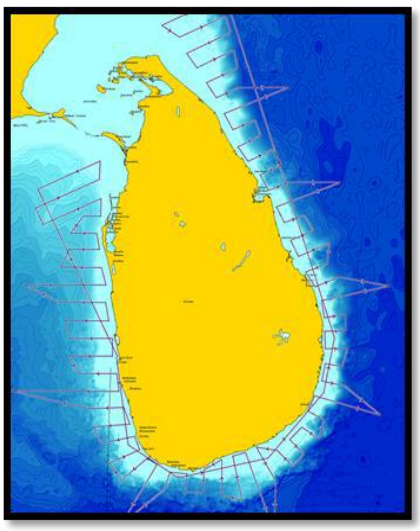
4.1 Sustainable Management of Fisheries and Aquatic Resources

4.1.1 Research on fish resource

Investigations on the fish stocks in Sri Lankan waters were conducted for 24 days from 18.06.2018 to 16.07.2018 by 18 scientists from NARA, one official from the Fisheries Department and One officer from SL Navy in collaboration with UNFP, Norwegian government, NORAD and Norway Marine Research Center with use of Dr. Fridtjof Nansen research vessel which is equipped with state-of-the-art research exploration facilities.

A research project for the exploration of ecological and live species data in the Sri Lankan sea area was conducted this year after a period of 40 years. The data of this research report will be used for the marine and fisheries resources management of Sri Lanka.

It has been reported by this research that fish species exceeding 350 in number exist in Sri Lankan waters witnessing the rich diversity of fish in Sri Lanka. Fish abundance has been observed in median layer of the ocean and a high potential lies for increase in fishery products by harvesting the fish resource on this layer of ocean.



4.2 Study on large- scale and small-scale marine fisheries industry in Sri Lanka

Recommendations for fish-resource harvesting management are given by the studies conducted on marine fish harvest. Tuna fish belong to marine fish species and they being highly migratory, the data required in regional management of fish resource is granted to IOTC while conducting local research and altogether sustainably managing the large-scale marine fish resource.

More than 60 species of small-scale marine fish have been endangered due to the use of harmful fishing gear. This project also examines the climatic, physical and biological factors that could lead to the depletion of fish resources.

It has been revealed that the fish schools of North-Eastern, Western, southern and Eastern provinces come from the same origin according to the Molecular biological studies conducted on Indian mackerel, Mackerel tuna, Frigate tuna and Grunter fish schools.

4.3 Introduction of new technology for the smoked fish industry

4.3.1 Introduction of new technology for the smoked fish industry

Members in the inland fishermen families in the vicinity of inland reservoirs in Sri Lanka engage in smoked fish production. They use the traditional method of making smoke with the use of mostly found wood varieties. This will allow the Poly Aromatic Hydrocarbons in the smoke get accumulated on the fish. The oven designed according to the FAO Thioraye technology has a filter which would minimize the accumulation of Poly Aromatic Hydrocarbons in the fish. Therefore, this technology is introduced to the persons currently engaged in the smoked fish production and the persons expecting to enter the industry.

An amount of 12 smoking ovens with the FAO Thioraye technology were distributed among the fishermen of various districts and the relevant training programmes were conducted for them.

In the districts of Matara, Jaffna, Mannar, Puttalam, Hambantota and Batticaloa 07 ovens were established while 05 other were established in Nuwara Eliya, Polonnaruwa, Ampara, Anuradhapura and Hambantota under the pilot project of establishing new ovens.

More than 250 fishermen families have been provided with training regarding the multipurpose ovens with a view to providing them livelihood opportunities in smoked fish production. Smoked fish has a high demand in the tourism and the export market.

Figure 4.3.1.1 New multipurpose ovens – pilot project

4.3.2 Cost- cutting measures on fish feed in the aquaculture industry

The reason for the excessive production cost of aquaculture in Sri Lanka is that fish feed have to be imported due to the unavailability of local fish feed for aquaculture. It is recommended that fish feed be locally produced for Thilapia and Bass farming on commercial scale. Under the fundings of UNFP, a fish feed machine is scheduled to be installed with the participation of public and government sectors. This will support the local production of quality fish feed and thereby increase the fish harvest of aquaculture.

4.3.3. Promotion of marine algae and aquatic plants through bio technology

It has been planned for this year that research be conducted for developing a tissue culture method for an increased production of shoots for Java Fern (Microsorium ptroous) , Kekatiya (Aponogeton rigidifolius) Anubias (Anubias barteri var Nana) and a commercially farmed variety of marine algae named Kapphycus alvarezii. Also “Athu Udiyan” (Cryptocoryne wendtii) plants are planned to be developed through genetic modification.

4.3.4. Improving the growth of shrimp, which is a challenge for caraway shrimp industry using nanotechnology and improving prawns for diseases

This project is implemented in the shrimp breeding center in Ambakandawila to scientifically study the immunity development of shrimp against the white spot disease by feeding them with extracted chitosan nano food particles. Required food reports have been received by scientific analysis of quality and quantity. This project recommends the percentages of Chitosan that should be inserted in shrimp feed.

4.3.5. Research for prevention of fish diseases

Prevention and quarantine of white spot disease and other diseases affecting particularly the ornamental fisheries industry is carried out by this project. It also studies the Thilapia lake virus (T2lv) and the research results contribute to the increase in fish exports.

4.3.6 Using the flood-prone areas near the Nilwala River for fish farming and aquatic plant farming

Suitable fish species and suitable farming areas are scheduled to be determined. As a pilot project, swamp and uncultivated paddy fields in Matara and Thihagoda DS Divisions are utilized in this regard. By this project, it is expected that aquaculture industry be developed with the utilization of abandoned lands.

4.4 Development projects on fisheries harbours and anchorages

4.4.1 Survering of fisheries harbours and anchorages

Extensive hydrographic surveying were conducted for the development of Mandathivu, Madagal, Punkuduthivu and Adikoviladi anchorages in the Northern District.

4.4.2. Colombo Port City Development Project

Coastal profile mapping were conducted up to 10Km in north and south from the project site. Taking into consideration the inconsistent nature of the coast, impact to the coast was calculated by conducting profile mapping perpendicular to the coast alongside the southern breakwaters near the river estuary and the island near the estuary.

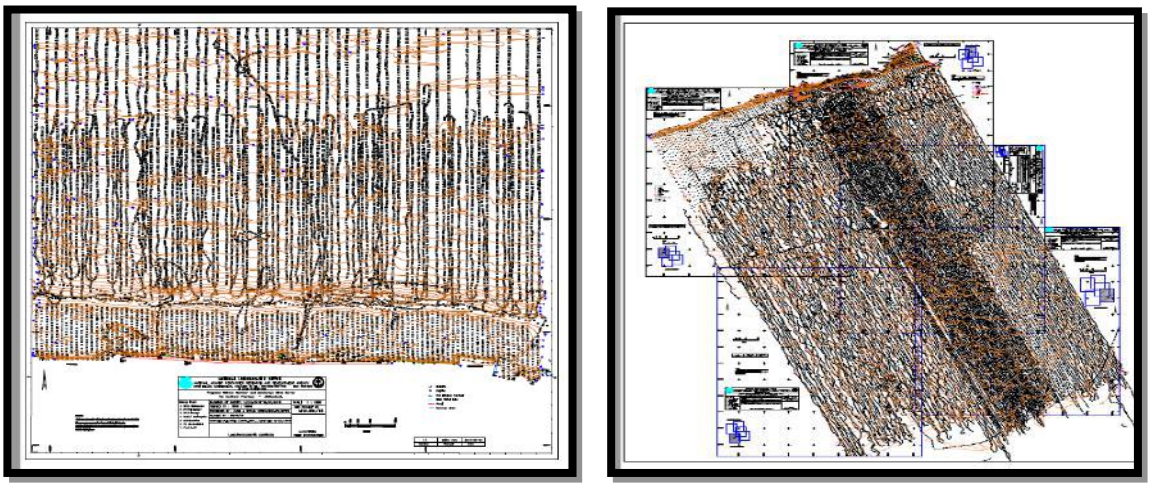


Figure 4.4.2. 1 Hydrographic maps designed for the proposed anchorages

Figure 4.4.2.2 Hydrographic maps designed for the Colombo Port City Project

4.4.3. Ecological Assessment for the proposed aquaculture project in the Vedithalathivu reserve

Hydrographic surveying was carried out indicating the reef and erosion zones of the canal system in the study area with the objective of providing abridged details applicable to the entire area. Also, location mappings of 1: 10,000 were designed indicating the access road to the study area, boundaries of the proposed reserve, religious places, infrastructure development and other special locations. In addition, land use maps of the reserve at present were also designed of which accuracy and reliability were confirmed by the researchers conducted in the area. Statistical data of Survey Department and the Department of Land Use and Policy Planning were used for this purpose.

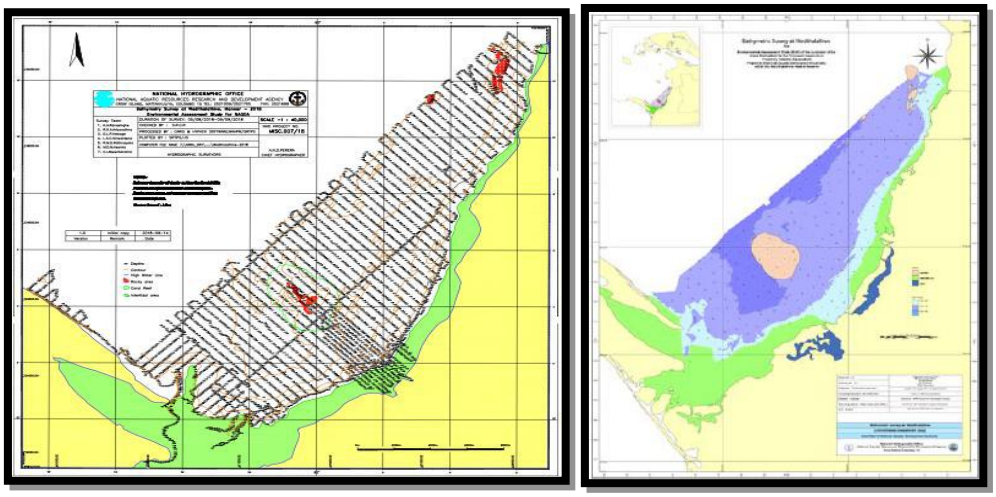


Figure 4.4.3.1 Land Use Map of the Vedithalathivu Reserve

4.5 Minimizing the Fish Post-Harvest Losses

Main fields identified for research and development in post-harvest technology by NARA

- Research on technology required for value-added products related to aquatic resources
- Introduction of the technology for healthy and high-quality traditional products
- Dissemination to the industries the technology for other value-added products related to aquatic resources.
- Research for minimizing post-harvest losses in fish
- Determination and reporting of hazardous chemicals and their quantities contained in fish products.
- Provision of technology and consultancy required for food conservation, processing and quality control

4.5.1 Research on quality of fish harvest of multiday fishing vessels in Peliyagoda central fish market complex and sales points

Current fish handling in local multiday fishing vessels larger than 55ft were studied. It has been revealed that even though large Tuna should be immediately cooled by dropping it in ice water soon after being fished to preserve its high quality for exportation, this method is not followed in multiday fishing vessels. Therefore, it is important that fishermen are encouraged to apply this method by offering a higher price for the fish landed by local multiday fishing vessels larger than 55 ft. Technology has been introduced for detecting fishing grounds to bring large

Tuna fish catch in a lesser time preserving its good quality by reducing the 40 days of sea voyage of these multiday fishing vessels.

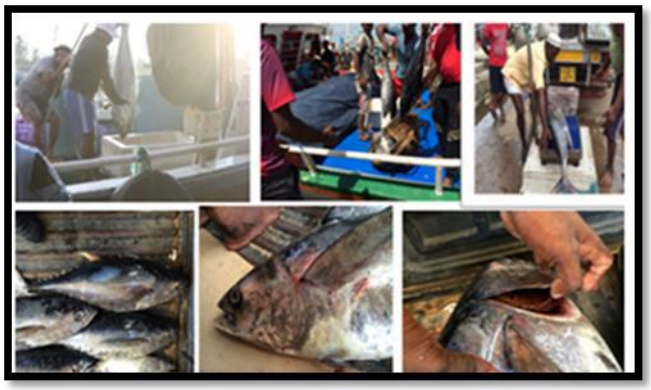


Figure 4.5.1. 1 Fish post-harvest losses in multiday boats

4.6 Increasing the export income of the fisheries industry

4.6.1. Breeding of endemic freshwater fish in Sri Lanka and introduction to the export market

Objectives of this project was to breeding endemic freshwater fish species in tanks and finding breeding techniques and thereby introducing new endemic freshwater species for the export market.

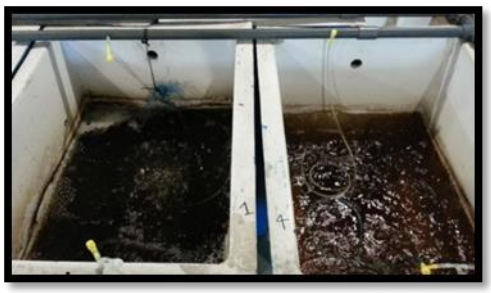
For this purpose, *Pethia melanomaculata* (tic- toc barb) fish species was studied and the natural population of *Systomus asoka* (Asoka pethiya) fish was also studied. Areas around Kithulgala and Deraniyagala were used for the data collection and it was revealed that the population of Asoka Pethiya has depleted drastically in contrast to the past. Researches were unsuccessful to breed Asoka Pethiya using natural and artificial methods in tanks. Therefore, further research is in progress regarding the breeding techniques of Asoka Pethiya in tanks.

Data was collected regarding *Pethia melanomaculata* fish species in natural environment. Bloodstock was obtained from natural habitats and possibility of growing them in cement tanks was studied. It was observed that they could be successfully grown in tanks with artificial feeding. Later, a study was done on natural breeding techniques and they were implemented successfully in cement tanks. (Cement tanks of 4x 1 1/2ft, water height 8 inches, PH 7.75, Tem 28o C, Alkalinity 62.8, and Hardness 65.2)

4.6.2. Utilization of fish production technology for ornamental fisheries for export market

The Guppy ornamental fish accounts for a percentage of 67 of Sri Lankan export market. This species is grown locally through extensive farming and a more developed and environmentally friendly farming method with higher stocking density is implemented in this regard. For the first time ever, the Bio Flock technology which is used for prawn and Thilapia farming in global, was experimented and adopted as appropriative to Sri Lanka.

Further, this project aims at studying the efficiency of multiple artificial hormones in the induced breeding of Balantrocheilos melanopterus and Epakzerorhynches frenatus species.



Farming system with Bio flock technology and collecting bio flock after the study

4.7 Increasing national income through the production increase of fisheries industry

4.7.1 Increasing the number of cuttlefish breeding centers

The largest issue encountered by the small-scale coastal fishermen in Sri Lanka, is the rapidly decreasing fish stock. As a solution, NARA has taken actions to establish artificial fish breeding centers in offshore areas.

4.7.2 Prediction of Tuna fishing grounds and improving the forecasting system

NARA forecasts twice a week the fishing grounds for deep sea marine fisheries. This helps to minimize the time consumed in searching fish and fuel expenses. The current accuracy of predictions is about 60% and further studies are conducted to increase its accuracy.

4.7.3 Conservation and management of spiny lobsters resource

Spiny lobsters are an endangered resource but earn a large income through exports. Many reasons such as the high demand in the global market, high fishing pressure, catching spawning lobsters and infant lobsters have caused depletion of this resource. Studying the lobster harvest in Southern and Eastern areas and providing management recommendations to the Fisheries Department and conserving spawning lobsters in sea till they release eggs were conducted by NARA. One female lobster releases eggs from 250,000 – 15, 100, 000 at a time.

4.7.4. Conservation and management of Marine Mammal

Among the other countries in Indian Ocean Marine Mammal Sanctuary, Sri Lanka is a country enriched with high diversity and abundance of marine mammals. Blue whales frequently inhabitant in the busy maritime route lies near the southern coast, become victims to recurrent accidents. Studies are in operation regarding the conservation of endangered marine mammals, migrant patterns, connection with marine scientific factors and population density. Also, interactions between the marine mammals due to fishing activities are also studied.

4.7.5. Digitalization of Libraries

The library of NARA was digitalized and uploaded to the internet with a view to providing quick online access for required information to scientists and researchers in the aquatic resources field.

4.7.6. Programme of Aquatic Circles

The Aquatic Circles programme initiated by NARA with the Ministry of Education is currently operated successfully in 65 selected schools in line with the objective of safeguarding the aquatic resources for the benefit of future generation. This programme is operated through various activities conducted by NARA and it aims at expanding the knowledge of students regarding the aquatic resources field, directing them to the

employment opportunities in this field, paving way for them to become future experts in this field and inducing them for the sustainable management of aquatic resources in future.

4.7.7 NARA International Scientific Session

NARA scientific session 2018 under the theme of "Innovative aquatic research towards blue-green economic development" was conducted on 24th -25th July 2018. A number of 66 research papers were discussed under the topics of fisheries and aquaculture, aquatic molecular science and diseases of aquatic species, marine and hydrology, conservation and management of aquatic environment and socio-economic development of fishermen community. NARA being the apex research institute of living and non-living resources in aquatic environment, has bestowed a significant service with the dissemination of knowledge in this particular field.

4.7.8. Studies on plastics and polythene on land and coastal areas of Sri Lanka

Sri Lanka is reported as the 5th polluting country in the world having a high amount of polythene and plastics in on its waters. This situation will harmfully affect for the fish export and tourism industry of Sri Lanka. This study is conducted to minimize these negative impacts by resolving the accuracy issues of the published information the recommendations for waste management are issued by this project.

4.7.9. Indication of sediment dynamics in the western coastal line of Sri Lanka

Coastal area from Matara to Puttalam has been identified in risk of erosion. As a result of extending the coastal line from Negambo to Udappuwa , coastal erosion has increased within the last ten years from 2005-2014. During the last ten years, the erosion level between Marawila to Chilaw has increased up to 20 times higher as it was reported from 1965-2005 and it has been identified to be 186000 m3 per year. Apart from that area, Chilaw to udappuwa coastal line has been recognized as the second largest area affected by coastal erosion. The erosion level is 96,000 m3 per year and it is higher in four times than it was reported from 1956-2005. Also, the coastal erosion is higher than 8m per year.

05. Ceylon Fishery Harbours Corporation (CFHC)

Vision

Striving to become the top facilitator in infrastructure in the region with the conversion of entire fishery harbours chain to in Green Harbours ensuring the Blue Economy development in Sri Lankan fisheries.

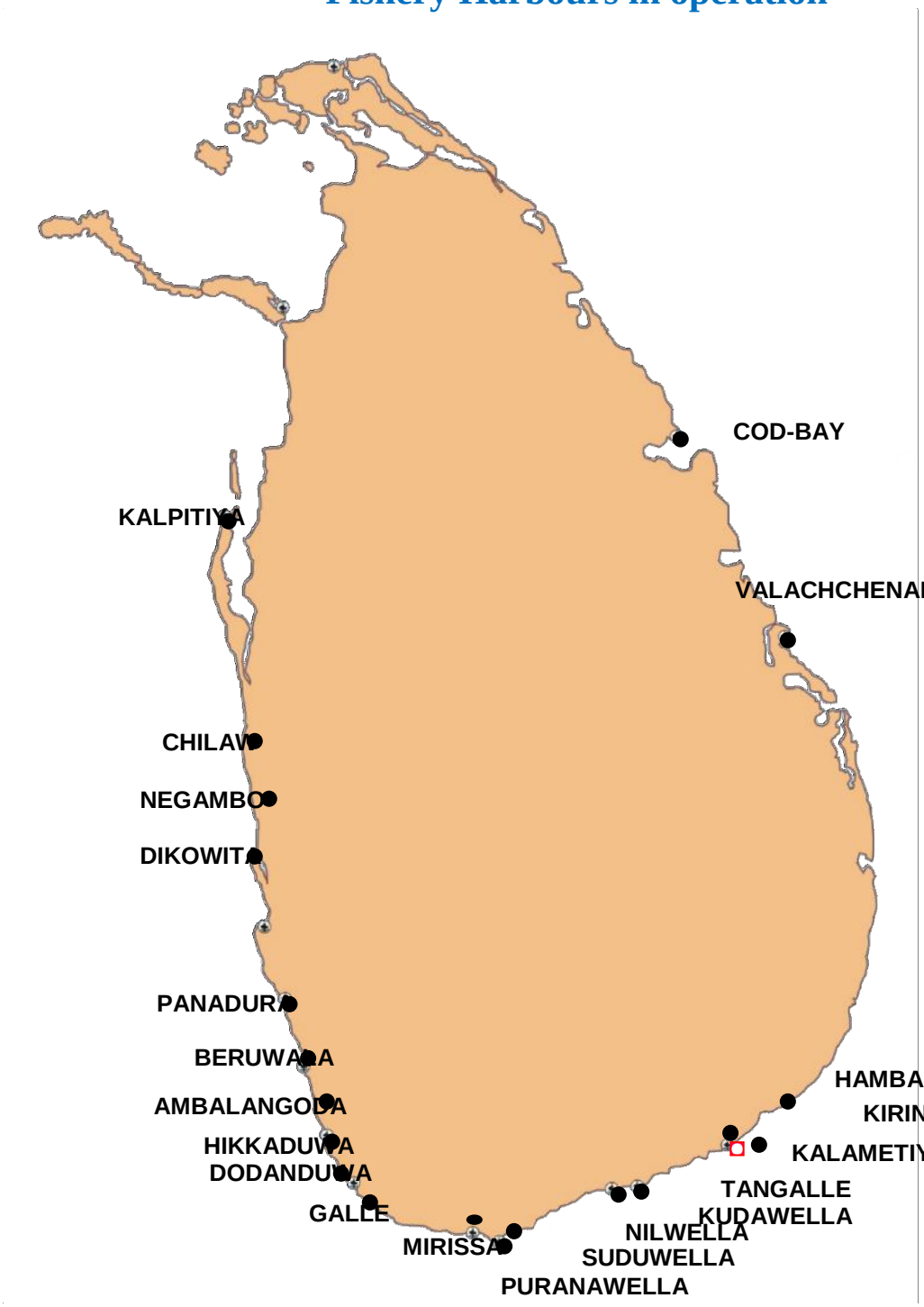
Mission

To deliver superior quality and state-of-the-art infrastructure ensuring income, efficiency and environmental & organizational sustainability

Functions

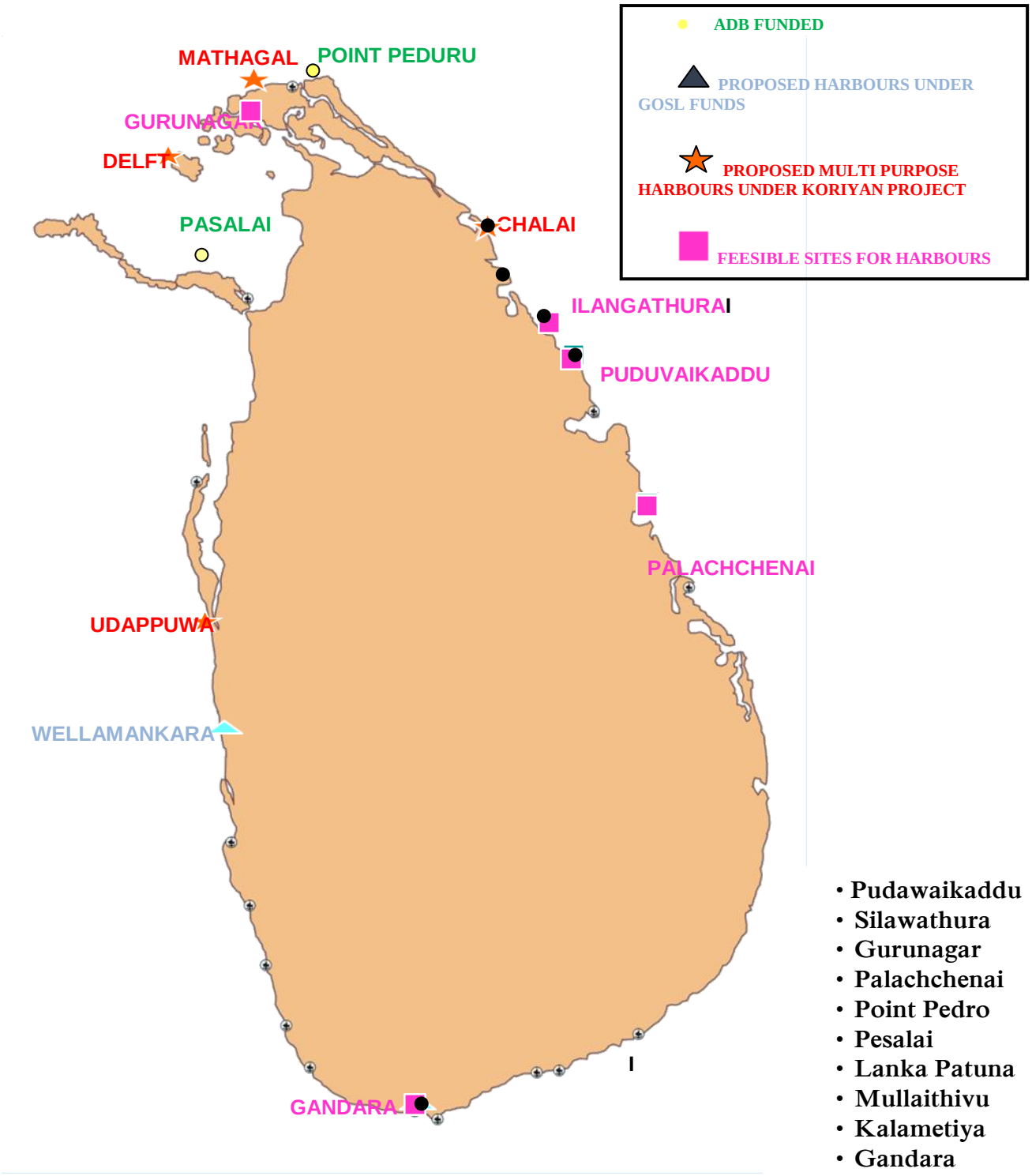
- Planning, designing and constructions of fishery harbours, anchorages, marine structures and other shore facilities,
- Establishment, operation, control and maintenance of Fishery Harbours, anchorages, marine structures and other shore facilities.
- Management of fishery harbours, anchorages, and other shore facilities.
- Provision of repairing and maintenance facilities for fishing crafts.
- Establishment, Operation and Maintenance of cold room, ice plants and other refrigeration facilities.
- Supply of water, fuel, lubricants, electricity, ice, cold room facilities and any other services and any other services incidental thereto for the purpose of fishery industry and fishermen.
- The provision of security to fishery harbours, anchorages, marine structures and other organizations within the Ministry of fisheries an 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 operation



- Panadura Fisheries Harbour
- Beruwala Fisheries Harbour
- Hikkaduwa Fisheries Harbour
- Galle Fisheries Harbour
- Mirissa Fisheries Harbour
- Puranawella Fisheries Harbour
- Kudawella Fisheries Harbour
- Tangalle Fisheries Harbour
- Kirinda Fisheries Harbour
- Cod bay Fisheries Harbour
- Kalpitiya Fisheries Harbour
- Dikkowita Fisheries Harbour
- Negambo Fisheries Harbour
- Walachchenai Fisheries Harbour
- Chilaw Fisheries Harbour
- Ambalangoda Fisheries Harbour
- Dodanduwa Fisheries Harbour
- Nilwella Fisheries Harbour
- Suduwella Fisheries Harbour
- Hambantota Fisheries Harbour
- Oluvil Fisheries Harbour

Proposed Fisheries Harbours in Sri Lanka under Construction and Planning

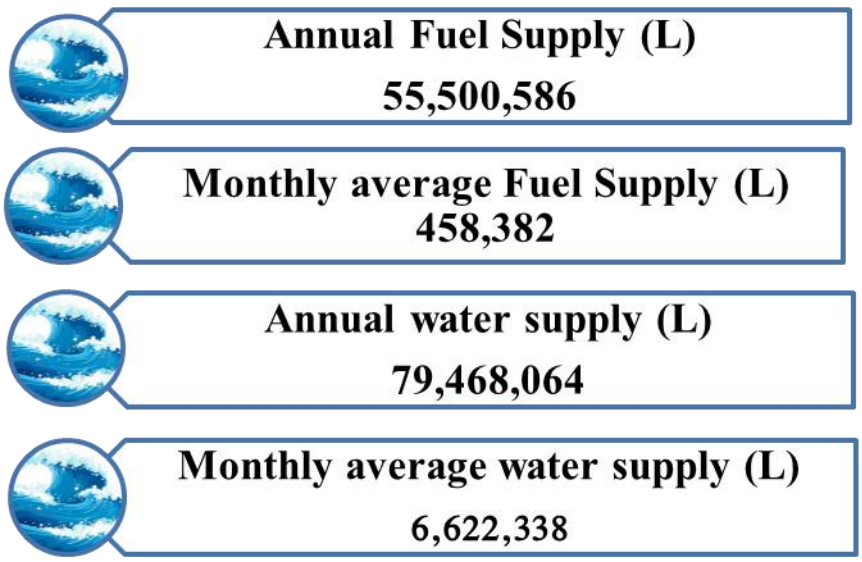


- Pudawaikaddu
- Silawathura
- Gurunagar
- Palachchenai
- Point Pedro
- Pesalai
- Lanka Patuna
- Mullaithivu
- Kalametiya
- Gandara

5.1 Key services provided by the harbour operational system

- Provision of fuel facility
- Water facility
- Ice facility
- Net mending halls
- Vessel repairing
- Canteen facilities
- Vessel lifting and dragging facilities
- 24 hour security service
- Maintenance of sanitary facilities
- Harbour dredging and maintenance facilities
- Harbour anchoring facilities
- Office facilities
- Banking facilities
- Facilities required for particularly industry-related investments
- Facilities for ships and whale watching vessel facilities

Fuel and water supply capacities of our ports - 2018



5.3 Overview of Fuel Storage Facilities and Sales - 2018

Fisheries Harbour	Fuel Capacity (L)	Annual sales (L)
Negambo Fisheries Harbour	36000	2105985
Dikkowita Fisheries Harbour	115200	9401247
Panadura Fisheries Harbour	-	45,541
Beruwala Fisheries Harbour	36000	6,423,608
Ambalangoda Fisheries Harbour	72000	2,309,202
Hikkaduwa Fisheries Harbour	36000	620,385
Dodanduwa Fisheries Harbour	36000	-
Galle Fisheries Harbour	74000	6,108,064
Mirissa Fisheries Harbour	72000	4,053,204
Nilwella Fisheries Harbour	36000	1,879,757
Puranawella Fisheries Harbour	72000	3,230,369
Suduwella Fisheries Harbour	18000	864,812
Kudawella Fisheries Harbour	72000	5,099,321
Tangalle Fisheries Harbour	54000	1,140,422
Hambantota Fisheries Harbour	36000	380,705
Kirinda Fisheries Harbour	36000	342,737
Walachchenai Fisheries Harbour	-	1,527,252
Cod bay Fisheries Harbour	54000	9,594,271
Kalpitiya Fisheries Harbour	36000	373,704
Chilaw Fisheries Harbour	36000	-
Total	**927,200**	**55,500,586**

5.4 Storage facility and Sales - 2017

Harbour	Water capacity (L)	Annual sales (L)
Negambo Fisheries Harbour	50000	2128750
Dikkowita Fisheries Harbour	250000	7439875
Panadura Fisheries Harbour	25000	124572
Beruwala Fisheries Harbour	200000	6842505
Ambalangoda Fisheries Harbour	126000	3927647
Hikkaduwa Fisheries Harbour	30000	1770982
Dodanduwa Fisheries Harbour	14000	304010
Galle Fisheries Harbour	50000	12564057
Mirissa Fisheries Harbour	18000	9419342
Nilwella Fisheries Harbour	12000	4429180
Puranawella Fisheries Harbour	80000	7978362
Suduwella Fisheries Harbour	11400	2211032
Kudawella Fisheries Harbour	114000	1386242
Tangalle Fisheries Harbour	32000	2407907
Hambantota Fisheries Harbour	12000	1038717
Kirinda Fisheries Harbour	75000	410727
Oluwil Fisheries Harbour	40000	
Walachchenai Fisheries Harbour	80000	1175180
Cod bay Fisheries Harbour	150000	9963390
Kalpitiya Fisheries Harbour	50000	3580487
Chilaw Fisheries Harbour	34000	365100
Total	**1508400**	**79468064**

5.5 Capacity of Ice Plants – 2018

Ice Plant	Fisheries harbor/ Landing site	Production Capacity Mt / Days	Ice Cube / Ice sheets	Mobile Ice plant (Yes /No)	Present status
Kirinda	Kirinda	5	Ice Cube	Yes	Active
Hambanthota	Hambanthota	20	Ice Cube	No	Proposed
Tangalle	Tangalle	5	Ice Cube	Yes	Not in Operation
Tangalle	Tangalle	5	Ice Cube	Yes	Active
Kudawella	Kudawella	10	Ice sheets	No	Active
Puranawella	Puranawella	35	Ice Cube / Ice sheets	No	Active
Puranawella	Puranawella	20	Ice Cube	No	Proposed
Galle	**Galle**	5	Ice sheets	No	Active
Galle	**Galle**	5	Ice sheets	No	Active
Galle	**Galle**		Ice Cube	No	Proposed
Hikkaduwa	**Hikkaduwa**	20	Ice Cube	No	Proposed
Dodanduwa	**Dodanduwa**	10	Ice Cube	No	Proposed
Ambalangoda	**Ambalangoda**	20	Ice Cube	No	Active
Beruwala	**Beruwala**	7.5	Ice Cube	No	Active
Beruwala	**Beruwala**	5	Ice Cube	No	Active
Panadura	Panadura	5	Ice sheets	No	Active
Negombo	Negombo	20	Ice Cube	No	Active
Chilaw	**Chilaw**	20	Ice Cube	No	Active

Kalpitiya	**Kalpitiya**	10	Ice Cube	No	Proposed
Cod bay	**Cod bay**	20	Ice Cube	No	Proposed
Cod bay	**Cod bay**	50	Ice Cube	No	Active
Dikowita	**Dikowita**	20	Ice Cube	No	Active
Walachchena	**Walachchena**	50	Ice Cube	No	Active
Ice production capacity		**367.5**			

5.6 Analysis of harbour anchorages facilities 2017

3874 multiday fishing vessels engage in operations which registered under Department of Fisheries of Sri Lanka in 2017. About 3874 fishing vessels are in operation under our fisheries harbours.

Hence 98% of multiday fishing vessels operates under our harbours and it contributes 179173.4 Mt of fish harvest.266 one day fishing vessels operates under our harbours and it accounts for 33% of the total oneday fishing vessels.This contributes 90472.8 Mt of fish harvest.

Summary of fishing vessels registered under our fishing harbours

One Day (IDAY)

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

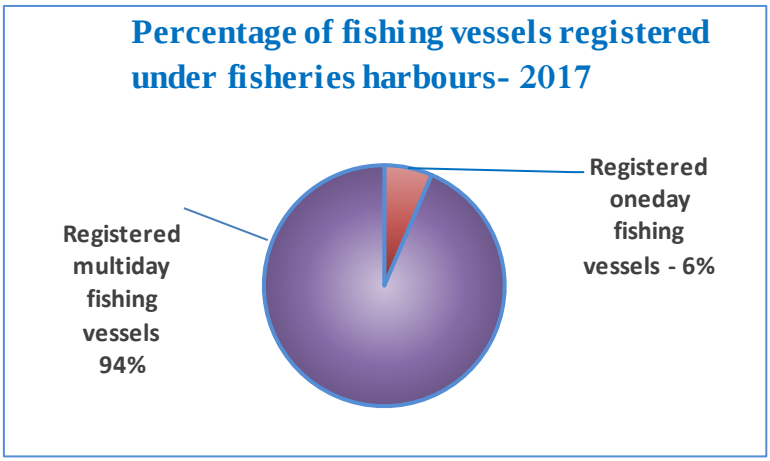
The total number of one-day fishing boats receiving port facilities 266

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

Figure 5.1 Percentage of fishing vessels registered under fisheries harbours - 2017



5.7 Overview of the harbour 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		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

5.8 Recent infrastructure development

Chilaw Fishery Harbour Development

Figure 5.8.1. Fully constructed auction hall

Figure 5.8. 2. Fuel tank constructed inside the harbour

Mirissa Fishery Harbour Development

Figure 5.8.3. Fully constructed net mending hall

Figure 5.8.4. Constructed new auction hall

Figure 5.8. 5. Waste water treatment plant

Figure 5.8.6. Whale watching services

Galle Fishery Harbour Development

Figure 5.8.7. Renovated internal road system

Figure 5.8.8. Newly purchased crane

Kudawella Fishery Harbour Development

Figure 5.8.9. New Service Jetty

Figure 5.8. 10. Renovated Fuel Tank

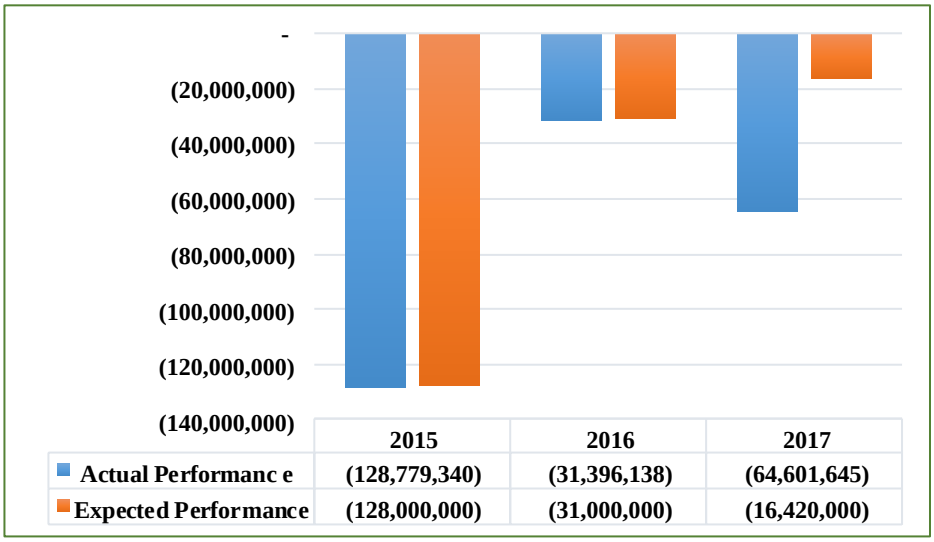
Kalametiya Fishery Harbour under construction

5.9 Analysis of Financial Status

5.9.1 Operations Data Analysis

This graph shows financial performance compared to the financial objectives mentioned in the combined plan 2016 and 2020.

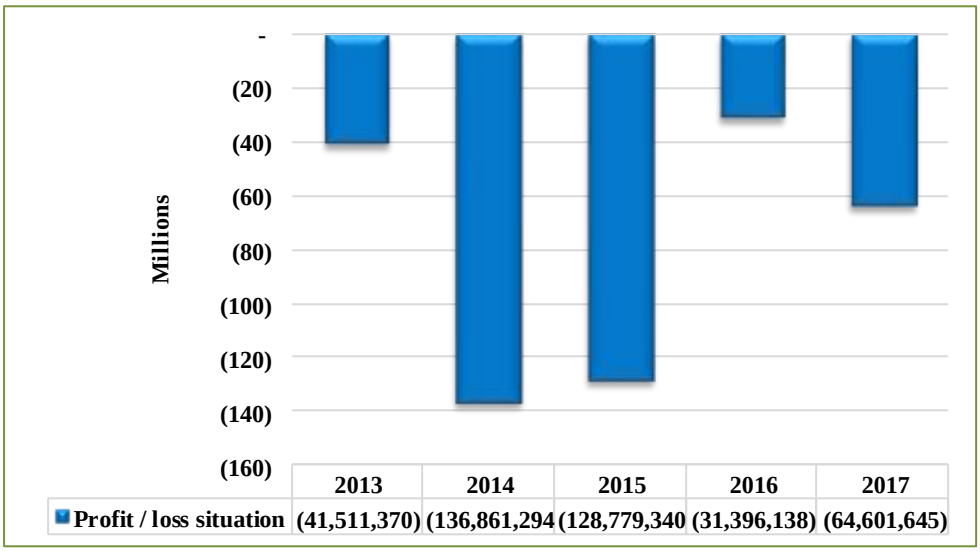
Table 5.9.1.1 Financial Performance 2015-2017



	2015	2016	2017
Actual Performanc e	(128,779,340)	(31,396,138)	(64,601,645)
Expected Performance	(128,000,000)	(31,000,000)	(16,420,000)

2 The corporation incured a loss of Rs 64 MN in 2017 .However it shows a 51.4% of decline compared to the loss incured in 2016 which was Rs 31.39Mn.Expected results from operations had not been able to achieve in 2017 as a result of higher operation cost.017 ඊ

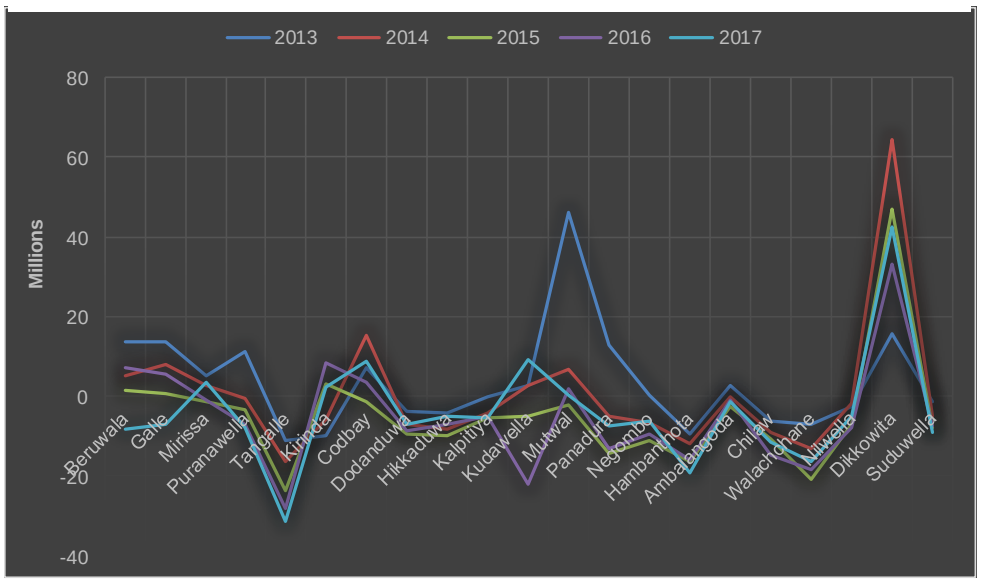
Table 5.9.1.2. Toal Number of Operations 2013.-2017



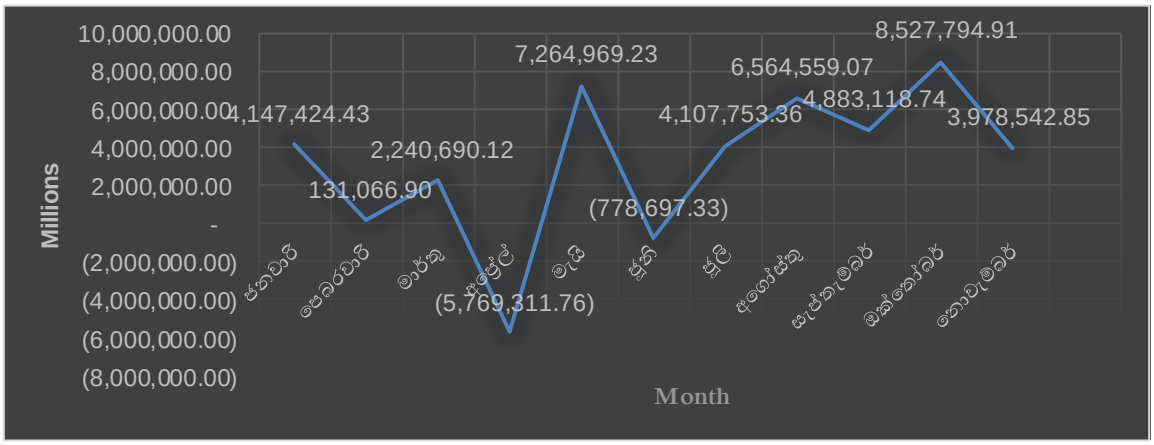
5.9.2 Operations of Fiheries Harbours

After considering the active performance of fisheries harbours, 8 fisheries harbours had been able to make profit from 2013 to 2017. Fishing operations were fluctuated as a result of weather conditions and other situations during this period.

Table 5.9.2.1. Fisheries harbours Operations 2013 - 2017



5.9.3. **Progress of harbour Operations 2018**



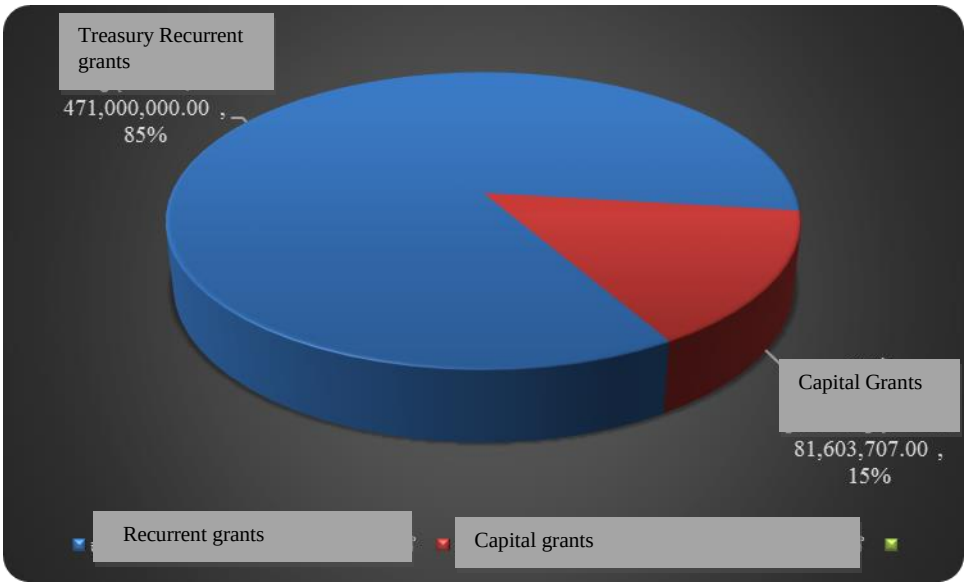
Harbours	Years				
	2013	**2014**	**2015**	**2016**	**2017**
Beruwala	13,336,051	4,881,902	1,191,757	7,209,784	8,334,216
Galle	13,614,172	7,666,147	366,197	5,566,059	7,318,400
Mirissa	4,848,998	2,578,689	1,395,982	1,118,576	3,209,401
Puranawella	11,234,593	547,540	3,625,962	7,382,750	7,923,880
Tangalla	11,247,625	16,766,388	24,074,976	28,612,975	31,590,514
Kirinda	10,256,929	5,939,064	3,111,429	8,163,629	1,944,921
Cod-bay	6,964,362	15,362,635	1,551,788	3,435,486	8,604,136
Dodanduwa	3,911,369	7,084,740	9,621,527	8,992,103	7,280,800
Hikkaduwa	4,315,259	8,643,191	9,979,348	7,171,111	5,139,240
Kalpitiya	441,467	4,295,458	5,437,187	5,315,190	5,424,646
Kudawella	2,464,878	2,662,993	5,220,778	22,336,518	9,095,708
Muthuwella	45,957,603	6,566,997	2,387,414	1,559,990	-

Panadura	12,639,573	5,077,493	14,699,956	13,541,487	7,719,158
Negambo	119,418	6,864,247	11,359,535	9,708,656	6,343,388
Hambanthota	9,874,126	12,215,468	16,681,711	16,032,507	19,584,610
Ambalangoda	2,365,492	185,895	2,834,562	1,071,886	1,637,238
Chilaw	6,279,250	9,374,140	11,123,725	14,977,016	11,593,879
Valachchena	7,128,726	13,362,748	21,204,170	18,813,054	16,653,009
Nilwella	2,653,853	1,810,881	7,169,148	7,895,794	5,288,313
Dikowita	15,622,813	64,536,258	47,081,022	33,243,775	42,432,703
Suduwella	1,588,612	5,067,032	7,867,900	7,770,668	9,132,927
Value of Operations	**71,470,737**	**7,021,336**	**104,485,264**	**111,561,568**	**85,677,349**

5.9.4. Fund allocation for fisheries harbours

Total fund allocation for the year 2017 is Rs 552,603,707Mn.Recurrent grant from the treasury accounts for 85% and capital grant accounts for 15%.

Table 5.9.4.1. Fund allocation for fisheries harbours - 2017

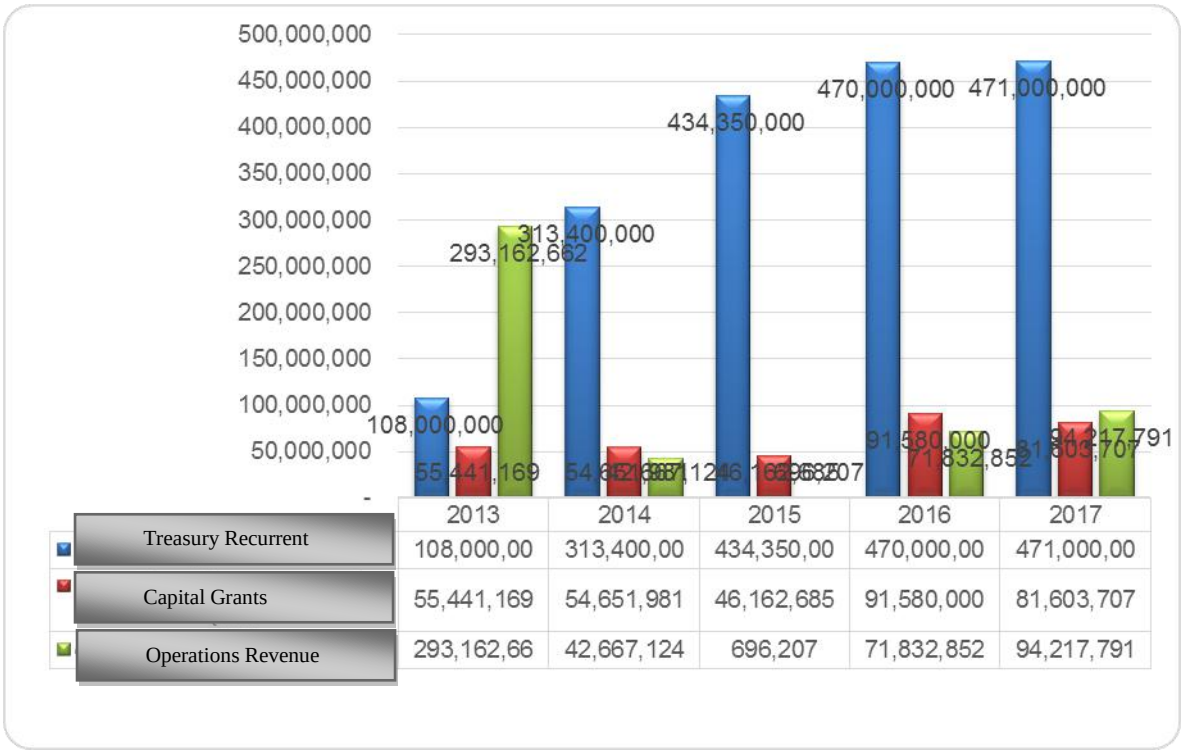


5.9.5. Comparison of treasury grants and Revenue 2013-2017

Revenue generated from operations shows an improvement from 2013 to 2017.Recurrent grant from the treasury also shows an increment during this time period.

Comparison of Revenue 2013 – 2017

Table 5.9.5.1. Harbour expenses - 2017



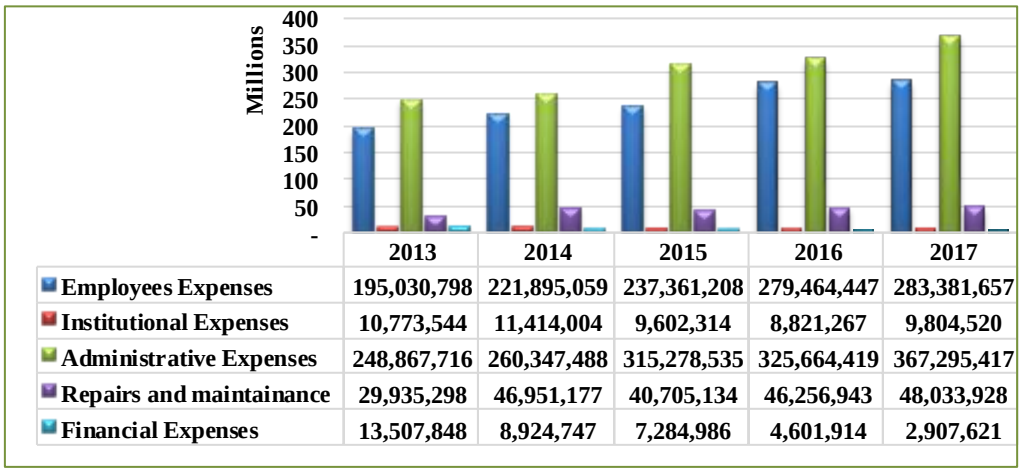
Total expenses have increased by Rs 46 Mn in 2017.The reasons for the increment are as follows

- Increment of salaries of government employees
- Increment of administrative expenses

52%, 40% , 7% and 1% of of total expenses account for administrative expenses, employees benifits,repairs and maintainance and Institutional expenses respectively.Accordingly administrative and employee expenditure has increased gradully during this period and expenditure of other fisheries harbours amounted to 4 - 50Mn.

Table 5.9.5.2. Harbor expenses 2017

Table 5.9.5.3Comparison of Expenses 2013 – 2017



	2013	2014	2015	2016	2017
Employees Expenses	**195,030,798**	**221,895,059**	**237,361,208**	**279,464,447**	**283,381,657**
Institutional Expenses	**10,773,544**	**11,414,004**	**9,602,314**	**8,821,267**	**9,804,520**
Administrative Expenses	**248,867,716**	**260,347,488**	**315,278,535**	**325,664,419**	**367,295,417**
Repairs and maintainance	**29,935,298**	**46,951,177**	**40,705,134**	**46,256,943**	**48,033,928**
Financial Expenses	**13,507,848**	**8,924,747**	**7,284,986**	**4,601,914**	**2,907,621**

5.10 Project Details - 2018

Table 5.10.1. Progress report of the Mechanical Engineering Unit -2018 ((January to December)

Serial No	Impiemented Projects/ programmes		Performance Rates	Year of 2018				Completed / Incompleted(If incompleted it should be completed within the up coming expected year)
				Alocations in 2018	Progress up to 31/12/2018			
					(2) FIN Rs.Mn(with bills in hand)	Physical		
						In wors	%	
1	Purchasing of aqatic software & measuring equipment (Head office)	CFOHS		1.630	1.626		100%	Completed
2	Improvement of sanitary facilities of the main building (Head office)	CHOSF		2.535	2.371		100%	Completed

3	Partition of the building(External work)	CHOPW		0.500	0.475		100%	Completed
4	proposed land scaping works	CHOEW		1.600	1.595		100%	Completed
5	Renovation of roofs of buildings (Fishing Harbours)	CAR		3.520	3.514		100%	Completed
6	Sanitary facilities of harbours	CASF		11.500	10.081		85%	It has been palnned to compleate in the year 2019
7	Renovation of excisting roads (Fishing Harbours)	CAIR		10.000	6.153		100%	Completed
8	Modernization of buildings/ New Constructions(Fishing Harbours)	CARB		11.200	11.190		100%	Completed
9	Colour washing the buildings(Fishing Harbours)	CAPB		0.005	0.003		100%	Completed
10	Hydrographic, engineering and code surveys	CAHS		0.510	0.502		100%	Completed
11	Construction of boundry wall(2017 to 2018)	CABW		0.700	0.657		50%	It has been palnned to compleate in the year 2019
12	Renovation of excisting break waters and new constructions	CABQ		41.300	41.219		80%	It has been palnned to compleate in the year 2019
13	Regional procurement committee functions	CARPC		12.000	12.390		100%	Completed
14	Releasing the retained money	CARR		3.000	2.062		100%	Completed
15	New constructions (Head office)	CHONC		15.000	11.536		90%	It has been palnned to compleate in the year 2019
Total - machanical enginering				115.000		106.174		

Table 5.10.2 Progress report of the Civil Enginerring Unit- 2018 (January to September)

Serial No	Impiemented Projects/ programmes		Performance Rates	Year of 2018				Completed / Incompleted(If incompleted it should be completed within the up coming expected year)
				Alocations in 2018	Progress up to 31/12/2018			
					(2) FIN Rs.Mn(with bills in hand)	Physical		
						In words	%	
16	Purchasing of fuel pumps	MHDGM(i)		0.000	0		0%	Incompleted. It has been palnned to purchase filling units from 2019 budget
17	Repair of fuel pumps in all fishing harbours	MHDGM (ii)		2.300	2.074		100%	Completed
18	Purchasing of generators	MSMTG (i)		0.000	0		0%	It has been palnned to purchase generatours from 2019 budget
19	Repair of fuel pumps in all fishing harbours	MAMGM (ii)		23.000	22.189		100%	Completed
20	Purchsing of fuel tanks (07 Nos (800Gal-6Nos, 5000 Gal-01 Nos)	MSPFT		2.300	2.273		100%	Completed
21	Purchsing of a bowser(5000l)-3 Nos	MSMPB		0.580	0.57		100%	Completed
22	Purchsing of fixed assets	MHPFA		6.000	5.219		100%	Completed
23	Purchsing of extinguishers	MSPFE		0.400	0.375		76%	It has been palnned to purchase fire extingushers from 2019 budget
24	Conducting excavation activites	MMDAH		0.000	0.000		100%	Completed
25	Maintainance activities - electrical	MMREW(ii)		6.000	5.557		100%	Completed
26	Repair & maintainance of light vehicles	MHMLV		8.000	7.854		100%	Completed
27	Procrement activites & other machinery works	MHPWS		3.800	3.607		100%	Completed

28	Improvement of the communication system in the coperation	MHUCS		0.900	0.893		100%	Completed
29	Rapair and maintainance of machines in all fishing harbours	MRMPS		5.000	4.664		100%	Completed
30	Renovation- fenders, D shackle, I boult, Tyres for all harbours	MRFAH		0.500	0.487		100%	Completed
31	maintainance & service activities - Tractors, Trailers & Generators	MSMTG (ii)		1.020	1.016		100%	Completed
32	Maintainance activites - Grap Hopper Dredger	MAHGM (i)		11.500	10.573		100%	Completed
33	Maintainance activites - Cutter suction dredger	MCSPS (ii)		6.000	5.970		100%	Completed
34	Maintainance of heavy vehicles	MHMGM (i)		13.000	12.969		100%	Completed
35	Repair and procurement activites - beacon lamps an buoys	MMREW (i)		2.200	2.138		90%	Improvements have been allmost completed balance 10% will have been planned to be completed by 2019
36	Consultancy services	MSMCS		0.400	0.328		100%	Completed
37	Procurement activites- Cutter suction dredger	MCSPS (i)		0.000	0.000		0%	it is expected to purchase spare parts from 2019 budget
38	Payments made to the activities of the year 2017	MHMGM (i)- 2017		16.000	15.483		100%	Completed
39	Fixing of cctv cameras for the head office & harbours	MHHSC		1.100	1.036		55%	Incompleted. It has been palnned to fix CCTV camera from 2019 budget
40	purchasing of a motor cycle	MHPAB		0.000	0		0%	incompleted
	Total - machanical enginering			110,000	1.036			
	Total - machanical & Civil			225,000	0			

Estimated Project cost (Rs.)	- Civil Enginerring Unit	- 106,174,000.00
Unit Estimated Project cost (Rs.)	- Mechanical Engineering Unit	- 105,274,000.00
Estimated Project cost (Rs.)	Total cost in 2018	- 211,448,000.00

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 the market leader awarding significant contribution to the Gross National Product through fisheries industry
- To be the guiding organization responsible for marketing of fisheries production, processing and marketing.
- Ensuring the fishing community that a reasonable price is paid for their fish products.
- Providing high quality fish to the consumers at an affordable price
- Achieving sustainability in all our operations and activities

Objectives

- Increasing monthly fish sale up to 700MT by December 2020
- Facilitating strategic investments having analyzed expenditure and benefits
- Improving all the regional operations up to profit making levels by December 2018
- Improving our service beyond the expectation levels of the customers
- Providing a reasonable price to the fishermen and providing good quality fish to the consumers at a reasonable price
- Performing as a national institute that is capable of maintaining a fixed price in open market
- Actively achieving export opportunities for selected fish varieties in Sri Lanka

Ceylon Fisheries Co-operation which is under the purview of the Ministry of fisheries and Aquatic Resources Development had been established in the year 1964 under the Ceylon fisheries Act No: 49 of 1957. The objective of the Co-operation is to sale fish harvest at reasonable price and healthy fish products to consumer community whilst controlling the developing market competition in the fisheries industry and to provide guaranteed price for purchasing fish from fishermen.

However establishing of institutes as Ceylon fisheries Harbour corporation and Cey-nor foundation during the later period have led them to acquire the constitution objectives of the Ceylon fisheries corporation and therefore at present the Ceylon fisheries corporation launch its operations in a narrow space and its mission and objectives have been modified according to the current context.

Fluctuating between competitive business and social welfare, CFC was more inclined towards social welfare objectives than commercial purposes and due to this reason CFC ended up being a continuously loss-making entity

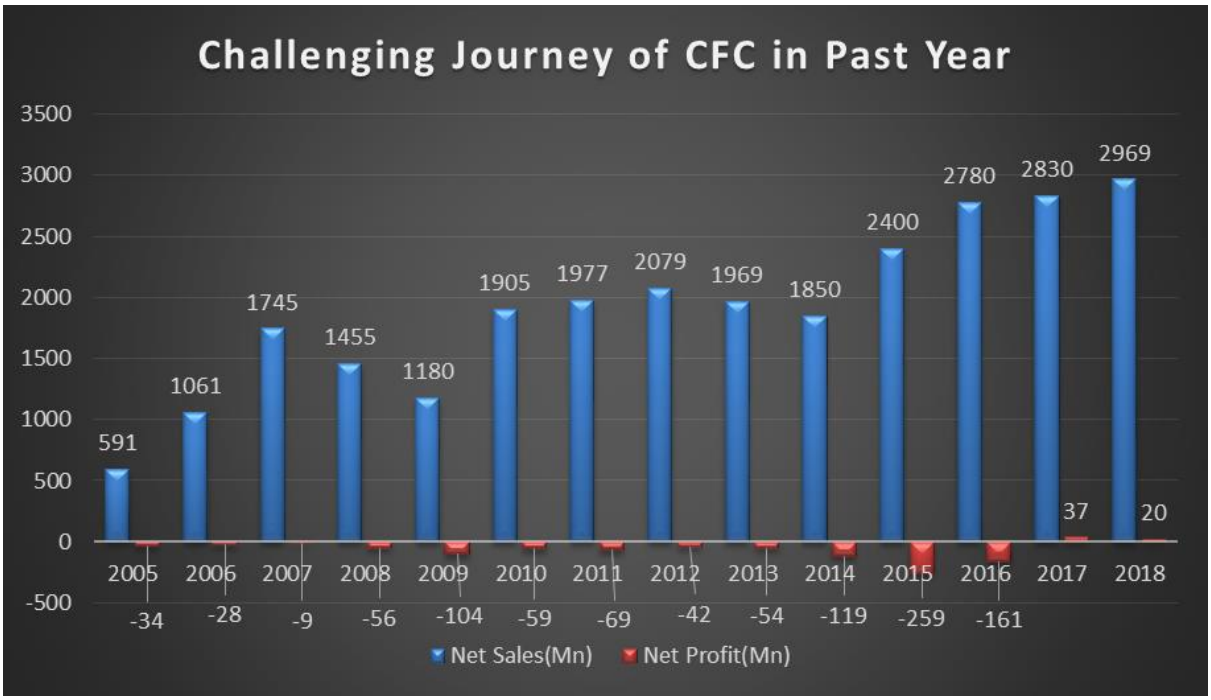
It climaxed in 2015 where CFC had to undergo a grievous financial crisis and treasury provisions had be used to settle compulsory operational cost and statutory payments. In this backdrop, Cabinet of Ministers identified CFC as enterprise that should restructured and relevant recommendations were issued to reduce the number of excessive staff under a voluntary retirement scheme and to strengthen the management structure.

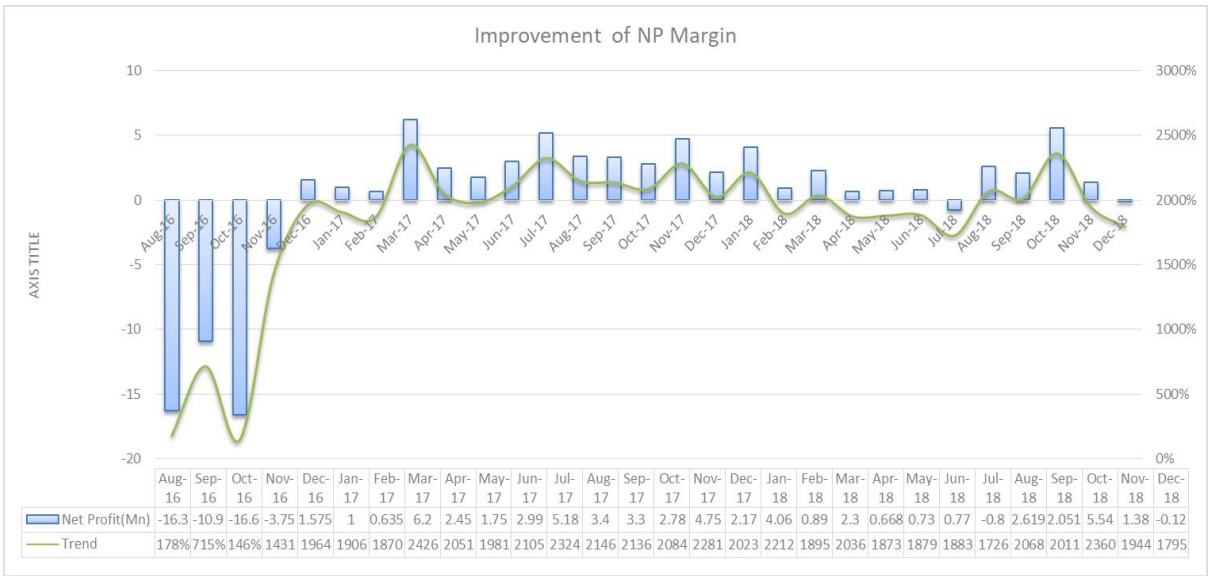
6.1 New Management

- Considering the uncertainty of CFC, financial provisions were released by General Treasury to implement two voluntary retirement schemes in 2016 and to pay emoluments until July 2016. However, the new management has become capable of paying personnel emoluments more than Rs. 411 million and other statutory & operational cost since August 2016 to present time

6.2 Financial Stability

- Owing to the sustainable strategies implemented since the inception of year 2018, maximum profit could be gained throughout the year and the accumulated net profit was reported to be Rs. 37 million. Under-utilized assets of CFC were recognized and leased out under competitive prices. This could earn a tax income amounting Rs. 2.8 million





	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Net Profit(Mn)	-16.3	-10.9	-16.6	-3.75	1.575	1	0.635	6.2	2.45	1.75	2.99	5.18	3.4	3.3	2.78	4.75	2.17	4.06	0.89	2.3	0.668	0.73	0.77	-0.8	2.619	2.051	5.54	1.38	-0.12
Trend	178%	715%	146%	1431	1964	1906	1870	2426	2051	1981	2105	2324	2146	2136	2084	2281	2023	2212	1895	2036	1873	1879	1883	1726	2068	2011	2360	1944	1795

6.3 Venturing into new market opportunities

After a comprehensive study, our fish products which were limited only to Lak Sathosa and Coop City, were marketed to Cargils and other super markets under the brand name. This could earn more consumer attraction and additional income to CFC while generating new employment opportunities.

6.4 New Enterprise

Initial works are under construction of the fish processing unit under Treasury provisions. It is expected that this unit be utilized as a fully-fledged processing unit to the satisfaction of import and local requirements.






Within the year 2018, a number of 17 fully-fledged sales pints have been established covering multiple areas of the island. This has given opportunity to an increased number of consumers to purchase fresh fish at a reasonable price.

Bokundara , Piliyandala, Kaduwela,Welisara, Giriulla, Warakapola, Ragama, Gampaha11,Waragoda,Kotadeniyawa,Aththidiya,Mawanella,Kuliyapitiya,Ambilipitiya,Thihagoda,Matara,Kandy Mega Complex.

6.5 Establishment of new sales points

With a view to granting again a fixed price for the fish products of Eastern provincial fishermen and transporting their daily fish harvest to the consumers, following purchasing centers are being established in 2018 covering the Eastern province.
Saindumarudu, Kalmunai, Batticaloa, Arugambay, Mullaithivu, Potuvil, Panama, Lahugala (freshwater fish)

Year	2018	2019	2020	2021	2025
Income (Rs Mn)	31.15	38.9	48.67	55.97	64.37
Sales quantity (Mt)	70	87.5	109	125	144
Sales Cost (Rs Mn)	23.8	29.75	37.19	42.76	49.18
Net Profit Margin (Rs.)	7.35	9.18	11.48	13.2	15.2
Net Profit Margin	24%	24%	24%	24%	24%
Direct and Indirect Cost (Rs. million)	4.4	5.5	6.9	7.9	9.1
Net Profit (Rs. million)	2.9	3.6	4.6	5.3	6.1
Net Profit Margin	9%	9%	9%	9%	9%

07.

Cey-Nor Foundation Limited

Vision

To be the leader in the manufacturing of fishing vessels, leisure crafts and fiberglass related products to be an internationally recognized boat builder.

Mission

Operating as an efficient and effective government-owned company supplying high-standard fishing craft and fishing gear at competitive prices

Objectives

- To become a recognized exporter of fiberglass boats
- To become a fiberglass boat builder with international reputation
- To be an investor in fiberglass boat building sector in foreign countries
- To be an effective contributor to the development of Fishing Industry in Sri Lanka by supplying high-quality fishing boats & fishing gear
- To be a provider of excellent customer services

Functions and services

Cey-Nor is engaged in manufacturing and supplying fiberglass fishing crafts, boats, canoes, outriggers and other fiberglass fishing gear required for the local marine and inland fisheries.

Since the year **2017**, fishing boats of **59.5** ft with latest technology have been manufactured by Cey Nor and delivered to the local fishermen at concessionary rates with a view to minimizing post harvest losses and, at the same time it is manufacturing and supplying fishing boats of **55**ft with front cabin targeting the foreign market.

7.1 Projects initiated in the year 2018

02 fishing vessels with **59.5**ft length manufactured under **50%** government concession for the purpose of minimizing post harvest losses were launched and their keys were awarded to the owners by Hon Mahinda Amaraweera

These vessels manufactured to the Deep V Bottom Chine Hull method, have **40**Cu.m fish hold, **14**,**000** liter of fuel capacity and **4**,**500** liter of clean water capacity. The vessels operate at a speed of **10** Knots per hour and they could carry **8** persons onboard at a time and a fish catch of **20-25** tons.

Third vessel with 59.5ft length manufactured under 50% government concession for the purpose of minimizing post harvest losses

Multiday fishing vessel of **55**ft length manufactured for a client in Mauritius

7.2 Projects and Programmes expected to be executed in the year 2019

It has been planned that in the year 2019 whale watching boats with 55ft length will be manufactured targeting the high demand in the tourism sector. Also the fully-fledged boats manufactured for the post-harvest loss minimizing will be promoted in the local and foreign market.

08. Development and Rehabilitation of Fishery harbours, anchorages and Landing sites Project

8.1 Main sectors of the project

- Development of fisheries harbours
- Construction of fisheries harbours
- Development of anchorages
- Development of berths
- Development of infrastructure facilities of fishery harbours
- Construction of boat yards
- Improvement of lagoons condition

Constructions under the project

- Commencement date of the project 2014.07.14
- Total estimated cost Rs 1280.79Mn

8.1.1 Construction of Kalamatiya Fishery harbour

This project carries out the following items.

- Construction of breakwater 310m
- Construction of Groyne 55m
- Construction of jetty 80m
- Shore facilities

Fish auction hall, two net mending centres, canteen, sanitary facilities, auction hall, shopping complex, staff hostel, office building for the fisheries inspectors and coastguard forces and water tank proposed to be constructed. Physical progress of the project by 31 December 2018 is 97% and financial progress is 89 %.

8.1.2 Construction of Wellamankara Fishery harbour

- Commencement date of the project 25.06.2018
- Total Estimated cost Rs 2355Mn

Following are conducted by the project.

- Construction of breakwaters (567m)
- Construction Groyne (125m)
- Construction of quay wall (350m)
- Shore facilities

Fish auction hall, two net mending centres, canteen, sanitary facilities, auction hall, shopping complex, staff hostel, office building for the fisheries inspectors and coastguard forces and water tank proposed to be constructed.

Physical progress of the project by 31 December 2018 is 10 %and financial progress is 10%.

8.1.3. Construction of Miliddi Fishery harbor

This project is being implemented under 2 phases.Total estimated cost for the project is Rs 395 Mn.

- Commencement date 25.06.2018

Deepening of the basin, Increase the length of the quay wall from 30m to 80m,supply of fuel for vessels,construction of net mending centre,community hall,provision of sanitary facilities,communication centre,accomadation facilities,water facilities under phase 1
Physical progress of the project by 31.12.2018 is 20 % and financial progress is 19%.

Under the Phase II, it is expected to carry out construction of fish auction hall,restoration of 50m of break water,deepening of the harbor basin, administration building,managers accommodation,Employees hostel, boat parking building, weigh bridge control center, solar power, water treatment center and canteen .

8.1.4. Development of Negambo Lagoon

This project is implemented under 3 phases.Total estimated cost of the project is Rs 1000Mn

- Lagoon development in the region of Lellama
- Lagoon development in the area of court complex
- Lagoon development in Queens's road

Deepening of the harbor basin under phase 1 of package 1 of worksite started on 14.05.2016.The project was completed on 14.02.2014.

Deepening of the lagoon in the area of court complex under package II started on 01.08.2017. Current physical progress is 90 %.

Deepening of lagoon in the area of court complex under package III started on 20.07.2018. Current physical progress is 10 %.

8.1.5. Construction of the jetty in Gall fishery harbour

Construction of a jetty of 10m wide and 58m length in the fishery harbor under this project.Project started on 13.11.2016.Physical progress of the project is 60%. Total estimated cost of the project is RsMn 97.56.

8.2Fisheries Development projects implemented in the North funded by Sri lankan government together with Asian Development bank

- Total estimated budget Rs. 32,000Mn

8.2.1 Jaffna District

- Point Pedro Fishery Harbour
- Mandathiv Anchorage

- Fishery Thotupola
    1. Munai
    2. Thalathurai
    3. Arthokoviladi
- Fishery thotupola
    1. Sampoladi
    2. Chllipuram West
    3. Aralithurai
    4. Thuraiur
    5. Punkudathiv

Point Pedro Fishery harbour

This fishery harbour established with State of the art facilities

- Harbour basin - 18.6 hectares
- Port shipment limit - 6.1 hectares
- cosist of 2 jetties
    1. First harbour jetty 201m
    2. Second harbour jetty 473m
- Construction of net mending factory
- Construction of fish auction hall
- Provision of ice plant facility
- Establishment of communication centre
- Provision of sanitary facilities
- Provision of electricity/ water facility

- Construction of canteen building
- Establishment of waste refinery centre
- Provision of fuel
- Provision of generators
- Provision of accommodation

1. First Service jettey 200m
2. Second Jetty 105m

8.2.2 Mannar District

- Pesalai Fishery Harbour
- Fishery Anchorages

1. Sirithoppu
2. Minarappadu
3. Wankalai
4. Arippu
5. Kondachchikuda

Fishery harbour at Pesalei

- Harbour Basin - 10 HA
- Land area – 7 HA
- Total length of the quay wall – 430m
- Total length of the jetty – 130m

8.2.3 Mulative District

- **Anchorages**
    1. Iranapalai
    2. Kallappadu North
    3. Kallappadu South
    4. Theethkarai
    5. Silawathei
    6. Kokilai

8.2.4 Kilinochchi District

- **Anchorages**
    1. Pallikuda
    2. Waleipadu
    3. Nachchikuda

Proposed project funded by Asian Development Bank for the aquaculture development

Jaffna District

Chullipuram - Tissue culture laboratory for sea weeds

Mannar District

Southbar - Training centre for aquaculture development

Kondachchikuda - Mud crabs breeding centre

Mulathiv District

Walayanmadam – Sea cucumber breeding centre

Also, livelihood development projects are yo be implemented in 141 Grama Niladhari Divisions in Northern Province

8.3. Projects completed in 2018

8.3.1. Construction of fishery harbout at Chilaw

Upgrading of harbor was carried out under 2 phases. Total estimated cost for the project is Rs 101.7Mn. Phase 1 of the project started on 04.01.2017 and completed on 10.10.2017.Two storied fish auction hall and building for the security personnel were constructed under this phase

8.2.2 Development of Fishery harbor at Mirissa

The development of the harbor is being carried out under 2 phases. Total estimated cost is Rs 350Mn .2 sub projects operate under phase 1

Construction of a jetty

- Commencement date - 26.10.2016
- Completion date – 05.11.2017

Construction of a jetty of 10m width and 82 length. Project has completed.

Construction of a net mending centre and jetty –Mirissa fishery harbor

- Commencement date - 09.01.2017
- Completion date - 08.10.2017

Jetty of 50m length of jetty was constructed. Physical progress of the project is 100%.

8.3.3 Contruction of boatyard in Karainagar

This project was initiated on12.10.2016. Total estimated cost of the project is Rs 283Mn. The project has been completed.

8.3.4. Construction of Paraliya anchorages

- Commencement date of the project- 24.10.2016
- Project Completion date - 2018.06.30.06.2018
- Total estimated cost- Rs 282 Mn

It is expected to construct a breakwater of 310m length and Quay wall of 50m length .The anchorage has been constructed and handed over to Fisheries Harbor Corporation.

8.4 Project to be implemented next year

Number	Project	Project Value (Rs.)	Project Duration	
			From	**To**
01	Upgrading Suduwella Fisheries harbour	318	2019	2020
02	Upgrading Dodanduwa fisheries harbour	729	2019	2021
03	Dvelopment of Hambantota fisheries harbour	396	2019	2020
04	Constructions of Balapitiya fisheries harbour	1200	2019	2022
05	Constructions of Dehiwala fisheries harbour	310	2019	2020
06	Constructions of Rakawa fisheries harbour	317	2019	2020
07		386	2019	2020
08	Constructions of Mawella fisheries harbour	198	2019	2020
09	Constructions of Walipatanwila fisheries harbour	400	2020	2021
10	Upgrading Ambalangoda fisheries harbour	500	2020	2021
11	Upgrading Hikkaduwa fisheries harbour	245	2020	2021