

70

**STANDING COMMITTEE ON AGRICULTURE, ANIMAL
HUSBANDRY AND FOOD PROCESSING**

(2023-24)

SEVENTEENTH LOK SABHA

**MINISTRY OF FISHERIES, ANIMAL HUSBANDRY AND DAIRYING
(DEPARTMENT OF FISHERIES)**

**‘EMPLOYMENT GENERATION AND REVENUE EARNING
POTENTIAL OF FISHERIES SECTOR’**

SEVENTIETH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI
FEBRUARY, 2024/ MAGHA 1945 (SAKA)**

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Presented to Lok Sabha on 07.02.2024

Laid on the Table of Rajya Sabha on 07.02.2024



LOK SABHA SECRETARIAT
NEW DELHI

FEBRUARY, 2024/ MAGHA 1945 (SAKA)

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CONTENTS

Page No.

| | | |
|---|--|------------|
| Composition of the Committee (2021-22) | | v |
| Composition of the Committee (2022-23) | | vi |
| Composition of the Committee (2023-24) | | vii |
| Introduction | | ix |
| REPORT | | |
| PART – I | | |
| CHAPTER-I | An Introduction to Fisheries Sector of India | |
| | a. Fisheries Resources of the Country | 1 |
| | b. Fishing & Aquaculture Activities in Fisheries Sector | 6 |
| | c. Role of Union and States/UTs Vis-a-Vis Fisheries Sector of India | 17 |
| CHAPTER-II | Production, Consumption and Infrastructure Development in Fisheries Sector | |
| | a. Production/Consumption in Fisheries Sector against Demand and Supply | 24 |
| | b. Import and Export of Fisheries Products | 28 |
| | c. Infrastructure Development in Fisheries Sector | 37 |
| CHAPTER-III | Employment Generation and Revenue Earning Potential of Fisheries Sector | |
| | a. Gross Value Added by Fisheries Sector | 42 |
| | b. Pradhan Mantri Matsya Sampada Yojana (PMMSY) | 44 |
| | c. Employment Generation in Fisheries Sector | 51 |
| | d. Revenue Earning Potential in Fisheries Sector | 54 |
| | e. Kisan Credit Card & Insurance Coverage | 57 |
| PART-II | | |
| Observations/Recommendations of the Committee | | 61 |
| ANNEXURES | | |
| I - | Component wise physical targets and their corresponding Achievements during the financial year 2020-21 and 2021-22 | 76 |
| II - | State/UT-wise list of Employment under the Inland Fisheries Sector along with the status of Employment viz Full time, Part time, Casual etc. | 80 |
| III - | State/UT-wise list of Employment under the Marine Fisheries Sector along with the status of Employment viz Full time, Part time, Casual etc. | 81 |
| IV - | State/UT-wise status of issuance of KCC for Fisheries Sector. | 82 |
| APPENDIX | | |
| I. | Minutes of the 22 nd Sitting of the Committee (2021-22) held on 02.08.2022 | 83 |
| II. | Minutes of the 2 nd Sitting of the Committee (2022-23) held on 15.11.2022 | 89 |
| III. | Minutes of the 5 th Sitting of the Committee (2023-24) held on 06.02.2024 | 95 |

**COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL
HUSBANDRY AND FOOD PROCESSING***
(2021-22)

SHRI P.C. GADDIGOUDAR - CHAIRPERSON

MEMBERS

LOK SABHA

2. Shri Afzal Ansari
3. Shri Horen Sing Bey
4. Shri Devendra Singh 'Bhole'
5. Shri A. Ganeshamurthi
6. Shri Kanakmal Katara
7. Shri Abu Taher Khan
8. Shri Mohan Mandavi
9. Shri Kinjarapu Ram Mohan Naidu
10. Shri Devji Mansingram Patel
11. Smt. Shardaben Anilbhai Patel
12. Shri Bheemrao Baswanthrao Patil
13. Shri Shrinivas Dadasaheb Patil
14. Shri Vinayak Bhaurao Raut
15. Shri Pocha Brahmananda Reddy
16. Shri Rajiv Pratap Rudy
17. Shri Mohammad Sadique
18. Shri Virendra Singh
19. Shri V.K. Sreekandan
20. Shri Mulayam Singh Yadav
21. Shri Ram Kripal Yadav

RAJYA SABHA

22. Shri Partap Singh Bajwa
23. Shrimati Ramilaben Becharbhai Bara
24. Sardar Sukhdev Singh Dhindsa
25. Shri Surendra Singh Nagar
26. Shri Kailash Soni
27. Shri Ram Nath Thakur
28. Shri Vaiko
29. Shri Harnath Singh Yadav
30. *Vacant*
31. *Vacant*

* Standing Committee on Agriculture renamed as Standing Committee on Agriculture, Animal Husbandry and Food Processing *vide* Para No. 3293, Bulletin Part-II dated 23.11.2021

**COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL
HUSBANDRY AND FOOD PROCESSING (2022-23)**

Shri P.C. Gaddigoudar- Chairperson

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9. Smt. Sharda Anilkumar Patel
10. Shri Bheemrao Baswanthrao Patil
11. Shri Shrinivas Dadasaheb Patil
12. Shri Vinayak Bhaurao Raut
13. Shri Pocha Brahmananda Reddy
14. Shri Rajiv Pratap Rudy
15. Mohammad Sadique
16. Shri Devendra Singh *alias* Bhole Singh
17. Shri Virendra Singh
18. Shri V.K. Sreekandan
19. Shri Ram Kripal Yadav
20. VACANT[#]
21. VACANT^{*}

RAJYA SABHA

22. Smt. Ramilaben Becharbhai Bara
23. Shri Masthan Rao Beeda
24. Dr. Anil Sukhdeorao Bonde
25. Shri S. Kalyanasundaram
26. Shri Surendra Singh Nagar
27. Shri Kailash Soni
28. Shri Randeep Singh Surjewala
29. Shri Ram Nath Thakur
30. Shri Vaiko
31. Shri Harnath Singh Yadav

[#]*Vacant w.e.f. 10.10.2022 due to demise of Shri Mulayam Singh Yadav on 10.10.2022 vide Bulletin- Part II, Para No. 5316 dated 14.10.2022.*

^{*}*Vacant w.e.f.29.04.2023 due to disqualification of Shri Afzal Ansari from Lok Sabha Membership from the date of his conviction in terms of the provision of Article 102(1)(e) of the Constitution of India read with Section 8 of the Representation of the People Act, 1951 [Vide Table Office (B) Notification No. 21/4(6)/2023 dated 01.05.2023]*

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Shri P.C. Gaddigoudar- Chairperson

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16. Mohammad Sadique
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21. *VACANT*

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22. Smt. Ramilaben Becharbhai Bara
23. Shri Masthan Rao Beeda
24. Dr. Anil Sukhdeorao Bonde
25. Shri S. Kalyanasundaram
26. Shri Vijay Pal Singh Tomar*
27. Shri Kailash Soni
28. Shri Randeep Singh Surjewala
29. Shri Ram Nath Thakur
30. Shri Vaiko
31. Shri Harnath Singh Yadav

* Shri Vijay Pal Singh Tomar, MP, Rajya Sabha has been nominated to the Committee *vide* Bulletin Part-II, Para No. 7523 dated 29.09.2023 *vice* Shri Surendra Singh Nagar *w.e.f.* 26.09.2023

SECRETARIAT

1. Shri Shiv Kumar Wadhawan - Additional Secretary
2. Shri Uttam Chand Bharadwaj - Director
3. Shri N. Amarathiagan - Under Secretary
4. Shri Ashwaghosh B. Lokhande - Under Secretary

INTRODUCTION

I, the Chairperson, Standing Committee on Agriculture, Animal Husbandry and Food Processing (2023-24), having been authorized by the Committee to submit the Report on their behalf, present this Seventieth Report on 'Employment Generation and Revenue Earning Potential of Fisheries Sector' of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries).

2. The Standing Committee on Agriculture, Animal Husbandry and Food Processing had selected the Subject for examination during 2021-22. Briefing on the Subject by the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) was held at the Sitting of the Committee on 02.08.2022. As the examination of the Subject could not be completed during 2021-22, the Subject was again selected for examination by the Committee during 2022-23. Evidence of the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) was taken by the Committee in their Sitting held on 15.11.2022.

3. The Report was considered and adopted by the Committee at their Sitting held on 06.02.2024.

4. For facility of reference and convenience, the Observations/Recommendations of the Committee have been printed in bold at Part-II of the Report.

5. The Committee wish to express their thanks to the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) for appearing before the Committee and furnishing requisite information in connection with the examination of the Subject.

6. The Committee would also like to place on record their deep sense of appreciation for the invaluable assistance rendered to them by the officials of Lok Sabha Secretariat attached to the Committee.

New Delhi

06 February, 2024

17 Magha, 1945 (Saka)

P.C. GADDIGUDAR

Chairperson

**Standing Committee on Agriculture,
Animal Husbandry and Food Processing**

CHAPTER - I

An Introduction to Fisheries Sector of India

India has vast marine and inland fishery resources which is directly indicative of immense potential of the Fisheries Sector. Growth and development of Fisheries Sector has huge potential to provide employment and entrepreneurship opportunities in many fields such as capture and culture fishery activities, fish processing, seed production, feed, transportation, cold chain, freezing, navigation, packaging and pharmaceuticals.

A. Fisheries Resources of the Country

1.2. India has rich and diverse fisheries resources ranging from deep seas to lakes, ponds, rivers and more than 10 Percent of the global biodiversity in terms of fish and shellfish species. The Marine Fisheries resources are spread along the country's vast coastline and Exclusive Economic Zone (EEZ) and large continental shelf area. The Inland Fisheries resources are in the form of rivers and canals, floodplain lakes, ponds and tanks reservoirs, brackish water, saline/alkaline affected areas etc.

1.3. **Marine Fisheries Resources** - The marine resources of the country comprise an Exclusive Economic Zone (EEZ) of 2.02 Million Sq. Kms., a continental shelf area of 0.53 Million Sq. Kms and a coastline of 8,118 Kms. The Marine Fisheries potential in the Indian waters has been estimated at 5.321 MMT constituting about 43.3 Percent Demersal, 49.5 Percent Pelagic and 4.3 Percent Oceanic Groups. *(Sub-para-24 of Para-.23 of DoF AR 2022-23)* According to Department of Fisheries, the Marine Fisheries of the country with a long coast line and Continental Shelf area provides ample scope for harnessing deep-sea fisheries resources, which remain predominantly untapped. The country has an estimated harvestable potential of 5.31 Million Metric Tonnes in its EEZs and this include deep sea resources of 3.30 Million Tonnes (depth between 200-2000 Metres) and Areas Beyond National Jurisdiction (ABNJ). In this context, large deep-sea long liners equipped with adequate carrying capacity and On-board Post-Harvest Handling Facilities could bolster the catch efforts.

1.4. **Inland Fisheries Resources** - The vast inland resources comprise of 0.27 Million Kms. of rivers and canals, 1.2 Million Ha Floodplain Lakes, 2.45 Million Ha of

Ponds and Tanks and 3.15 Million Ha Reservoirs. The trend analysis of Indian Fisheries sector reveals a paradigm shift from Marine dominated fisheries to a scenario where Inland Fisheries has emerged as a major contributor to the overall fish production in the country. Inland Fisheries presently have a share of 75 Percent in total fish production of the country. Although, Inland Fisheries has grown in absolute terms, however the rate of growth in terms of its potential has not been realized yet.

1.5. The Inland Fisheries Activities are conducted across an extensive network of Rivers and Canals (1.95 Lakh Kms), floodplain lakes (8.12 Lakh Hectares), Ponds and Tanks (24.1 Lakh Hectares), Reservoirs (31.5 Lakh Hectares), Brackish water (12.4 Lakh Hectares), saline/alkaline affected areas (12 Lakh Hectares), etc., with an estimated Fish Production Potential of about 17 Million Tonnes. Thus, with the actual production standing at 11.20 Million Tonnes as of 2020-21, only about 66% of the total potential is being currently harnessed. For instance, there are about 5701 Large Dams in the country and many medium and small reservoirs with a water spread area of about 32 Lakh Hectares. These Reservoirs, called 'sleeping giants' in leading fisheries' research, have the potential to change the contours of fish production and, if harnessed to their capacity, can productively contribute to the sectors' growth and provide livelihood opportunities for millions.

1.6. **Untapped Potential** - The full potential of Fisheries Sector is yet to be realized due to critical gaps in production inputs, investment, infrastructure, value addition, technological know-how and skilled manpower. The future development of aquaculture depends upon adoption of new and innovative production technologies, management and utilization of underutilized water bodies, and deployment of effective marketing strategies. Additionally, building core efficiencies in post-harvest management including reduction of losses and incorporation of hygienic primary processing standards is vital. Simultaneously, forward and backward market linkages need to be strengthened to bring remunerative returns to the fishers and fish farmers and to provide good quality fish and fish products to the consumers at affordable prices.

Measures for Conservation and Development of Fisheries Resources

1.7. The Food and Agriculture Organization (FAO) code of conduct for responsible fisheries and the international instruments pertaining to fisheries and biodiversity

conservation, stress the need for developing selective and eco-friendly fishing gears in order to conserve resources, protect non targeted resources and endangered species like sea turtles and minimize environmental impacts of fishing. Overfishing and irresponsible fishing practices along with other factors such as pollution, habitat destruction and fragmentation, non native species, invasions and climate change have long been recognized as leading causes for reduced aquatic biodiversity, declining stocks falling economic returns, employment opportunities., etc. in Fisheries Sector.

1.8. Fisheries resource enhancement and conservation measure have long been adopted in many countries for sustaining capture fish production, conserving aquatic biodiversity, rescuing endangered species, improving environmental conditions, etc. Some of the resource enhancement measures being undertaken in the country are Seed Farming, River Ranching, Creation of Artificial Reefs, etc.

1.9. **Rural Fisheries and Indigenous Breeds** - The Committee wanted to know whether any measures have been taken by the Ministry to protect fishers/aquatic animals and to conserve indigenous breeds of fishes, which form the major component for providing nutrition to rural fishers. The Department in its reply submitted the following:

"To protect fishers/aquatic animals and conserving indigenous breeds of fishes Department of Fisheries (MoFAH&D) encourages river ranching to address the depletion of fish stock in rivers under PMMSY through NFDB. This initiative is expected to increase production and restrict depletion of fish species hence improve the livelihood of fishers and farmers in NER States. Species like Magur, Singhi, Pabda, and Koi have special consumer preferences and fetch high market prices due to their medicinal properties and nutritional properties. The commercial breeding and propagation, and culture expansion of these species remains low due to the lack of adequate hatchery infrastructure for local fish seed production, lack of dissemination of breeding techniques among the farmers is supported."

1.10. **Bull Trawling and LED Light Fishing** - The Committee desired to know whether the Department of Fisheries has taken any measures to ban / prohibit Bull Trawling, and LED Light fishing and other harmful fishing practices in the country. In this regard, the Department stated:

"The destructive fishing practices such as paired or Bull trawling and use of artificial lights/ LED lights for fishing are banned in the Indian EEZ vide Order No.21001/3/2014-Fy (Ind) dated 10th November, 2017. Department of Fisheries (MoFAH&D) issues advisories from time to time to the Coastal States/UTs requesting them to ensure sustainable fishing practices."

1.11. **River Ranching Scheme** - River Ranching Scheme has been taken up as a priority activity to replenish depleted fish stock in rivers. Production of native species in the rivers by seed ranching of native stock, upgradation of riverine landing centers and instruments to provide financial assistance for fishermen wellbeing are being targeted. As India is bestowed with 14 Major, 44 Medium, and numerous Minor Rivers that run through 2.52 Lakh Kms, contribute to current production of 1 Lakh ton. For optimally harnessing the potential of riverine fisheries, the Department is focusing on conservation of indigenous fisheries resources and restoration of natural productivity by practice of river ranching and 41 Conservation and Awareness in Riverine Fisheries programme sanctioned under Blue Revolution in 9 States /UTs. River ranching is being implemented in Ganges and the tributaries of Ganges river system, Brahmaputra and Barak river distributaries and other rivers, Mahanadi and tributaries of Mahanadi river system and Godavari, Cauvery, Narmada and Indus river.

1.12. The Committee desired to be apprised as to whether the Department plans to undertake River Ranching to assist the Fishing Community dwelling besides the rivers. The Department in its reply submitted:

"The Department through National Fisheries Development Board (NFDB) supports River Ranching activities under the Central Sector Component of PMMSY for addressing the depleted fish stock in rivers and improve the livelihood of fishers. Further, during 2020-21 the River Ranching scheme was implemented in three river basins namely (i) the Ganges and its tributaries of the Ganges river system, (ii) Brahmaputra and Barak river distributaries and other rivers, and (iii) Mahanadi and tributaries of Mahanadi river system, covering 8 states of Bihar, Uttar Pradesh, Odisha, Chhattisgarh, Tripura, and Uttarakhand. During 2021-22, the scheme has been extended to cover other rivers such as Godavari, Cauvery and Narmada covering states of Karnataka, Tamil Nadu, Maharashtra, Gujarat in the 2nd phase. Till date, a total of 16.05 Crore has so far been sanctioned to 13 states for ranching 555.05 lakhs fingerlings."

1.13. **Artificial Reefs** - Artificial reefs (AR's), a centuries-old technique, provides a firm substrate for marine life to inhabit, attract fish that can consume the algae and other organisms that populate the artificial substrate. AR's are used all over the world to increase the production and fishing potential of underutilised areas. They also enhance the area's biological productivity and are widely used as spawning and nursery grounds for fishes. Their prime objectives are mitigation of habitat loss, enhancing biodiversity, enhancing aquatic creature populations by providing shelter for juvenile and mature animals, providing new substrates for algae and molluscs culture, establishing possible marine protected area (MPA) networks to regulate fish life cycles and connectivity, enhancing professional and recreational fisheries, creating suitable areas for diving and providing a mean to manage coastal activities and reduce conflicts and research and educational activities. The Department is taking up special projects to establish artificial reefs across the coastal belt in suitable places.

1.14. The Committee desired to know whether the Department has any proposal or taken any measures to boost Marine Fisheries by setting up Artificial Reefs, and the details of number of Artificial Reefs that have been set up in States and Union Territories till date. The Department in its reply stated the following:

"The Department has formulated a plan for inclusion of "Promotion of sustainable fisheries and livelihoods through Artificial Reefs and Sea Ranching" as a sub-activity under the "Integrated Modern Coastal Fishing Villages" (IMCFV) under the Non-beneficiary oriented Centrally Sponsored Scheme (CSS) Component of PMMSY for rebuilding of fish stocks and promoting sustainability in inshore/coastal fisheries in order to protect the livelihood of dependent fisher folks. The unit cost of each Artificial Reef set consisting of 250 concrete reef units with bulk volume of 400m³ and surface area of 0.17 ha. has been fixed at Rs.31lakh.

Further, The Central Advisory Committee (CAC) has recommended to earmark approximately Rs. 372 crore for taking up Artificial Reefs and Rs. 28 crore for Sea Ranching out of Rs. 750 crore earmarked for about 100 IMCFVs @ unit cost of Rs. 7.5 crore envisaged under the PMMSY. Wherein to showcase its utility and help the small scale fishers residing in them, it has been proposed to install at least one reef set in each of the 3477 coastal villages across coastal states/UTs. Accordingly, the target for 2022-23, 2023-24 and 2024-25 has been tentatively fixed as 1200, 1200, and 1100 respectively. Therefore, the States/UTs may ensure that the no. of reef sets proposed for 20-23 is not less

than one-third of the no. of coastal villages within their jurisdiction. Indicative targets and allocation for 2022-23 is as under:

| Details of marine fishing villages proposed for development as Artificial Reefs under PMMSY | | | | DPR received from States | |
|---|-----------------------------|------------------------|---|--|--------------|
| Sl. No. | State/UT | Fishing villages (Nos) | Number of artificial reefs proposed for 2022-23 | Amount | Remarks |
| (i) | (ii) | (iii) | (iv) | | |
| 1 | Gujarat | 280 | 97 | | |
| 2 | Daman and Diu | 12 | 4 | | |
| 3 | Maharashtra | 526 | 182 | | |
| 4 | Goa | 41 | 14 | | |
| 5 | Karnataka | 162 | 56 | | |
| 6 | Kerala | 220 | 76 | | |
| 7 | Lakshadweep | 10 | 3 | | |
| 8 | Tamil Nadu | 575 | 198 | Rs. 2448 lakh (75 Coastal Village selected) | Under review |
| 9 | Andhra Pradesh | 533 | 184 | | |
| 10 | Odisha | 739 | 255 | Rs. 1776.25 lakh (50 Coastal Village Selected) | Under review |
| 11 | West Bengal | 171 | 59 | | |
| 12 | Andaman and Nicobar Islands | 169 | 58 | | |
| 13 | Puducherry | 39 | 14 | | |
| | Total | 3477 | 1200 | | |

B. Fishing & Aquaculture Activities in Fisheries Sector

1.15. One of the most significant characteristics of the Indian fisheries sector is its small-scale nature. Fishing is a traditional economic activity in India practiced for generations by the fisher communities across the coasts and inland areas. The fishers can be broadly classified as (1) inland fishers, (2) marine fishers and (3) fish farmers. As per the Marine Fisheries Census-2016 conducted by the Department of Fisheries through Fisheries Institutes, there are 7,48,479 full time fishers and 1,53,968 part-time fishers in the marine fisheries of the country. Further, about 9,632 fishermen families are engaged in aquaculture activities with fish, prawn, shrimp, crab, mussel, oyster, seaweed, etc. in coastal regions of the country.

1.16. **Deep-Sea Fishing** - The Committee desired to know the details regarding steps taken by the Department to optimally harness the Deep-Sea resources of the Country which amounts to 5.31 Million Metric Tonnes (MMT) in its Exclusive Economic

Zones (EEZs) including Deep-Sea resources of 3.30 Million Metric Tonnes (depths between 200-2000 metres). The Department in its reply stated the following:

"The total potential yield of the Indian EEZ, revalidated by the Expert Committee for Revalidation of Potential yield of Fishery Resources in the Indian EEZ (2018) is estimated as 5.31 Million Metric tonnes....As against MSY of 5.31 MMT of total potential yield of the Indian EEZ, current output is about 4.41 MMT (2021-22), last 5 years production data is given in the tables below:

| Year | Marine Fish Production (In MMT) |
|----------------|--|
| 2017-18 | 3.76 |
| 2018-19 | 3.85 |
| 2019-20 | 3.73 |
| 2020-21 | 3.48 |
| 2021-22 | 4.41 |

To harness the deep-sea resources to the fullest, the Department is undertaking several measures such as introduction of new scheme(s) for introduction of new indigenous deep sea fishing vessels through fishermen cooperatives/self-help groups, modernization of existing indigenous deep sea fishing fleet, on-board training for enhancing the skills and capabilities of the traditional fishermen, providing potential fishing zone (PFZ) and tuna fishery advisory to fishermen by Indian National Centre for Ocean Information Services (INCOIS) and Fishery Survey of India (FSI), development and modernization of Fishing Harbours, etc."

1.17. On being asked about the of the Schemes introduced by the Department for introduction of new indigenous deep sea fishing vessels in the Country. The Department in its reply stated:

"Given the low level of harnessing of deep-sea fisheries resources in EEZ and High seas, support under CSS on Blue Revolution Scheme and Pradhan Mantri Matsya Sampada Yojana (PMMSY) has been envisaged by Government of India. The Department of Fisheries (then Department of Animal Husbandry, Dairying and Fisheries) on 09.3.2017 had introduced a sub-component under Blue Revolution Scheme, namely, "Assistance for Deep Sea Fishing" and "Conversion of Trawlers into Resource Specific Deep-Sea Fishing Vessels" which aims to promote the Indian traditional fishers in Deep Sea Fishing.

Further, financial assistance is being provided to traditional fishermen by Government of India under the PMMSY to all the maritime States/UTs for acquiring deep sea fishing vessels, for up gradation of existing fishing vessels for export competency, promotion of technologically advanced fishing vessels and fishing gear for fishermen/fishermen groups through State/UT governments along with training and capacity building for undertaking deep-sea fishing. In addition, A Standard Operating Procedure (SoP) for procurement of Deep-Sea

Fishing Vessels from the empanelled shipyards has also been developed by Ministry of Ports, Shipping and Waterways (MoPSW) and three variants of fishing vessels designs are developed by Cochin Shipyard Ltd."

Aquaculture in India

1.18. Aquaculture in India has evolved as a viable commercial farming practice from the level of traditionally backyard activity over last three decades with considerable diversification in terms of species and systems, and has been showing an impressive annual growth rate of 6-7 Percent. Some of the important species cultured in India are the Indian major carps and shrimp. Besides these, ornamental fish culture and seaweed farming, are slowly gaining importance in the aquaculture scenario in the last few years as alternative livelihood supporting sectors as small-scale activities. The Indian aquaculture sector can be broadly classified into Freshwater Aquaculture, Brakishwater Aquaculture and Mariculture.

1.19. **Fresh Water Aquaculture** - As per the Department of Fisheries, a shift from capture fisheries to aquaculture has been observed in Inland Fisheries during the last two and half a decades. Freshwater aquaculture with a share of 34 Percent in Inland Fisheries in mid 1980 has increased to about 76 Percent in recent years. *(Sub-para-5 of Para-2.1 AR 2022-23)* The carp-based freshwater aquaculture, mainly constituted by the Indian major carps, such as, catla, rohu and mrigal, has been contributing over 90 Percent of the aquaculture production satisfying the domestic need.

1.20. On being asked by the Committee about the present status of Fresh Water Fisheries in the Country and the measures taken by the Department to accelerate the Fresh Water Fisheries and the availability of quality seeds all over the country. The Department in its reply stated the following:

"Freshwater Fisheries contributes to more than 50% of India's fish production and involves important species as the Indian Major Carps (IMC), tilapia, catfish, murrels, trouts, pangasius among others. Special emphasis has thus been given to further enhance production and productivity of freshwater fish species and seed that includes 509 new freshwater finfish hatcheries sanctioned with a total investment of Rs 12,640 lakh (Rs 25 lakhs unit cost), 4 new freshwater scampi hatcheries sanctioned with a total investment of Rs 200 lakh (Rs 50 lakhs unit

cost), construction of Biofloc and RAS, installation of cages in reservoirs, integrated development of small-medium and large reservoirs etc. Now, the Department under PMMSY has also started to focus on species' diversification by promoting rearing of fish species pangasius, scampi and tilapia for domestic consumption and exports."

1.21. **Brackish Water Aquaculture** - India has 1.24 Million Ha of Brackish Water Area spread over all maritime States / UTs, but hardly 15 Percent of brackish water areas have been developed for commercial farming, Shrimps, oysters, mussels, crabs, lobsters, sea bass, groupers, mullets, milk fish, cobia, silver pompano, pearl spot, ornamental fishes and sea weeds are being farmed to some extent. The Coastal Aquaculture Authority (CAA) is regulating these activities in brackish water systems within 2 kms of the High Tide Line for sustainable development of Coastal Aquaculture sector.

1.22. About 40 Percent of inland saline areas (92.33 Lakh Ha) lies within the states of Haryana, Punjab, Rajasthan and Uttar Pradesh and is not utilized for any agriculture activities. Thus, productive utilization of these soils through aquaculture has been initiated to convert waste land into wealth land. Fish and shrimp farming have already been introduced in saline-affected areas of the four states under Rashtriya Krishi Vikas Yojana (RKVY) and Blue Revolution Scheme. Efforts are also being made for diversification of traditional carp culture to high valued shrimp culture and by value addition to carp culture by introducing new species like *L. Vannamei*, sea bass and other candidate fish species for saline soil/water etc. Hatchery and seed production techniques have so far been standardized for few commercial varieties of shrimps, crabs and fin-fishes.

1.23. **Mariculture** - Over the years, mariculture in the country has been confined largely to bivalve mollusks namely, mussels, edible oysters and pearl oysters, and to some extent to seaweeds. With a thrust on development of technologies pertaining to sea cage farming during the last decade, developmental plans with both forward and backward linkages have been envisaged to allow these activities to become significant contributors to production of seafood in the country.

1.24. **Marine Cage Fishing** - Regarding the status of Marine Cage Fishing in the Country and the measures undertaken by the Department to promote Marine Cage Fishing, the Department furnished the following reply:

"Pradhan Mantra Matsya Sampada Yojana (PMMSY) scheme has provision for Establishment of Open Sea cages culture (100-120 cubic meter volume) with a unit cost of Rs. 5.00 lakh. Cage culture is becoming a popular mode of fish rearing and open sea cages have been sanctioned to States/UTs as below under PMMSY in FY 2020-21 and FY 2021-22:

| (Rs. in Lakhs) | | | | |
|-----------------------|---------------------------|-----------------------|-------------------|------------------|
| Sl. No. | Name of the States | Physical (No.) | Proj. Cost | Gov Share |
| 1 | Andaman and Nicobar | 6.00 | 30.00 | 15.00 |
| 2 | Andhra Pradesh | 800.00 | 4000.00 | 1084.80 |
| 3 | Gujarat | 500.00 | 2500.00 | 600.00 |
| 4 | Maharashtra | 190.00 | 950.00 | 327.00 |
| 5 | Tamil Nadu | 60.00 | 300.00 | 78.60 |
| Total | | 1556.00 | 7780.00 | 2105.40 |

1.25. **Seaweed cultivation** - India has enormous scope for seaweed cultivation and promotion of seaweed-based industries. There are about 844 species of seaweeds reported, out of which about 60 species are commercially important ones. The Department and National Fisheries Development Board (NFDB) have been focusing on bringing in policy and infrastructural changes to push the sector through joint interventions with States/UTs and research institutes. Focused interventions such as establishment of seaweed park in Tamil Nadu, conducting feasibility study for identifying conducive locations for cultivation, knowledge transfer on suitable cultivation technologies, establishment of easily accessible seaweed seed banks etc are being prioritized by the Department.

1.26. **Ornamental fisheries** - India's share of global ornamental fish export is negligible (0.53 Percent with an import share of 0.42 Percent). This Sector has enormous potential to grow in the country due to conducive environment and high diversity of tropical fishes. Action Plan for development of Ornamental Fisheries: 2020-25 prepared by the Department focuses on development of Ornamental fisheries in potential states based on the resource potential and the existing value chain mechanism for fish production and marketing. The potential states identified for

development of Ornamental fisheries are West Bengal, Tamil Nadu, Maharashtra, Kerala, Odisha, Gujarat, Karnataka, Assam and Manipur.

1.27. **Quality Seeds for Fish Farming** - Fish Farming requires inputs such as quality seeds, feed, health management and marketing support. Programmes are being undertaken for production and distribution of quality seeds and feed for Aquaculture, culture-based-capture fisheries, husbandry of farmed species and availability of quality water in order to optimize production and productivity in Inland Fisheries and Aquaculture across the country.

1.28. The Committee wanted to know if the cost of Hatcheries for quality seeds is beyond the reach of the common Fish Farmers and If so, what remedial steps have been taken by the Department to bring down the cost or ensuring availability of these quality seeds at cheaper rates to the Fish Farming community. The Department in its reply stated the following:

"Fish hatchery forms an integral part of fish production as quality of seed plays a very major role as a key input. Moreover, Hatchery establishment require in depth technical know-how, high capital investment for establishment and skilled labor. Keeping in mind these fund requirements, the Department under PMMSY provides subsidy of 40% to General Category beneficiaries while 60% to SC/ST/Women beneficiaries with a funding pattern of 60:40 for General States while 90:10 for Hilly States for setting up of fresh water hatcheries (unit cost Rs.25lakh), brackish water hatcheries (Unit cost Rs.50lakh), trout fish hatchery (unit cost Rs.50lakh)

Additionally, subsidy is also provided for establishment of brood banks under non-beneficiary oriented Centrally Sponsored components of PMMSY at a unit cost of Rs 500 lakhs.12 brood banks have been sanctioned with a total investment of Rs 5535.60 lakh for providing quality seed at lower rates. Further to this, NFDB has been providing technical trainings and organizing demonstration workshops in conjunction with the research institutes."

1.29. **Fish Processing Industries** - In the Fish Processing Sector, currently, there are about 535 industries and firms, employing about 70,298 persons, with the average number employed per unit being 131 persons. Assuming a conservative annual average growth rate of 5% in the fish processing industry (post-harvest industry), the

registered number of industries and firms can be projected to reach 750 by 2024-25, potentially generating employment about one lakh people. Fishing sector also offers indirect employment in both skilled and semi-skilled activities such as boat building and maintenance, logistics including transportation, weighing, cleaning, ice and storage, supply of equipment, grading, filleting / dressing and jobs in the restaurant business.

1.30. **Fish Meal Fish Oil Industries (FMFO)** - The Fishmeal and Oil Industry was essentially an oil production activity; the oil finding industrial uses in leather tanning and in the production of soap and glycerol and other non-food products. The residue was originally used as fertilizer, but since the turn of this century it has been dried and ground into fish meal for animal feeding. Its main use is in the diets of poultry, pigs and fish which need higher quality protein. Small oily fish are the mainstay of the fishmeal and oil industry. There is a good demand for high quality fish meal and oil and production can be highly remunerative if suitable raw material is available.

1.31. The Committee sought to know about the number of Fish Meal and Fish Oil (FMFO) industries in the country till 2022 and their role in generating employment and revenue for the fishers and fish farmers in India. In this regard, the Department submitted as under :

"The number of Fish Meal and Fish Oil (FMFO) industries set up in the country till 2022 is as under:

| Processing Type | No. | Capacity (MT) |
|------------------------|------------|----------------------|
| Fish Meal | 54 | 3429 |
| Fish Oil | 48 | 990 |
| Total | 102 | 4419 |

*Source: MPEDA

| Name of the State | Fish Meal | | Fish Oil | | TOTAL | |
|--------------------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|
| | No of Units | Capacity | No of Units | Capacity | No of Units | Capacity |
| 1. Kerela | 5 | 134 | 4 | 29.6 | 9 | 164.00 |
| 2. Karnataka | 23 | 2084.5 | 25 | 678.5 | 48 | 2,762.00 |
| 3. Maharashtra | 6 | 512 | 6 | 202 | 12 | 714.00 |
| 4. Gujarat | 7 | 255 | 2 | 7 | 9 | 262.00 |
| 5. West Bengal | 4 | 68 | 0 | 0 | 4 | 68.00 |
| 6. Tamil Nadu | 8 | 351 | 10 | 69 | 18 | 420 |
| 7. Andhra Pradesh | 1 | 25 | 1 | 5 | 2 | 30.00 |

| | | | | | | |
|--------------|-----------|-------------|-----------|---------------|------------|-------------|
| Total | 54 | 3429 | 48 | 990.00 | 102 | 4419 |
|--------------|-----------|-------------|-----------|---------------|------------|-------------|

*Source: MPEDA

1.32. The Committee desired to know if the activities by these FMFO industries are promoting unsustainable fishing, by harvesting Juvenile Fishes (which is a reason for decline of many fish species such as Indian Oil Sardine) and Edible Fishes, which are processed and exported, resulting in collapse of fish stocks and marine ecology. The Department, in its reply, stated as follows:

"During the past 40 years, Indian aquaculture has succeeded and continues to increase while achieving the critical goals of environmental, economic, and societal sustainability. In the country the contribution of Aquaculture in total fish production has been increased from 36 % (1980) to 75 % (2020). As a result, the demand for aqua-feed has also increased substantially. Fish meal (FM) has been traditionally used as the main protein source in the aqua feed industry, due to its high protein content and balanced essential amino acid profile. FM is also an excellent source of essential fatty acids (EFAs), digestible energy, minerals and vitamins.

Fishmeal and fish oil can be produced from whole fish, fish trimmings or other fish processing by-products. A number of different species are used as whole fish-mainly small pelagic fish, such as Peruvian anchoveta, menhaden, blue whiting, capelin, sardine, mackerel and herring. The increased demand for FMFO, coupled with a significant shortage in global fish meal production and fish oil, has created sharp competition for its use by fast-growing aquaculture industry, as well as by pig and poultry farming, and the pet-food and pharmaceutical industries. As a result, FMFO has become the most expensive commodities in animal and aquaculture feeds in recent years.

Indian marine fisheries largely practiced as costal fisheries, is an open access, multi-species and multi-gear regime. Juvenile fish losses mainly occurs when they are caught as non- targeted species in trawls, include small sized fishes as well as juveniles of large growing, commercially important species that are classified as low value by-catch (LVB). With the increased demand for aqua-feed on a global scale, the demand for juvenile fishes and LVB for fish meal production has also increased in recent years.

For sustainable development of marine fisheries, much effort is being undertaken at global and regional scale including finding ways of reducing the fish meal and oil inclusion rate in aquaculture feeds. These efforts involve use of plant meals and oils, animal processing wastes, and fish offal meal and oil. In the recent years, a growing share of fishmeal and fish oil is being produced using fish by-products from capture and aquaculture processing with a positive impact on waste reduction. In addition, in order to avoid juvenile fishing, the

States like Kerala, Karnataka and Goa have declared minimum legal size for selected fish species. Further, to avoid the catch of juveniles and small fishes in trawls, States like Kerala, Karnataka, Maharashtra and Gujarat are implementing mesh size regulations as per their Marine fishing Regulation Acts."

1.33. The Committee further wanted to know as to whether the Department has undertaken any study to assess the dangers posed by the Fish Meal industries and about the steps being taken to mitigate the effects of these industries to the environment due to overfishing. The Department submitted the following reply:

"Fishmeal and fish oil are the protein-rich byproducts of smaller forage fish or low tropic level species like anchovy, herring, and krill that gather in immense schools on coastlines and in the open ocean. FMFO are easily digestible products used in fertilizers and animal feed, ranging from beef and chicken (livestock) to salmon and tilapia (aquaculture). Fishmeal is an excellent source of protein and essential amino acid mainly used as feed ingredient for aquaculture species and livestock. Fish oil is produced whenever fatty fish is processed into meal. It is 100% marine oil with high content of omega-3 fatty acids.

Aquaculture utilizes about 43% of global fish meal production and 85% of fish oil, which are the major ingredients for aqua feed production. The increased demand for aquaculture feed mills with the exponential increase in the production of *L. Vannamei* shrimp has propelled mushrooming of fish meal and fish oil factories in India over a decade. The FMFO units mostly use by-catch/trash fish or small forage fish for production of fish meal and fish oil.

In this regard, for the conservation and effective management of fishery resources, the Ministry is imposing a 61-days uniform ban on fishing by all fishing vessels in the Indian EEZ beyond territorial waters on the East Coast and West Coast. To conserve the marine resources and its sustainable utilization the Department is bringing a Marine Bill which is in advanced stage. Additionally, the Department periodically issues the advisories to all the maritime States/ UTs for prevention of juvenile fishing, mesh size regulation and use of sustainable fishing methods. In addition, in order to avoid juvenile fishing, the States like Kerala, Karnataka and Goa have declared minimum legal size for selected fish species. Further, to avoid the catch of juveniles and small fishes in trawls, States like Kerala, Karnataka, Maharashtra and Gujarat are implementing mesh size regulations as per their Marine fishing Regulation Acts. Further, as a measure to control the over-utilization of fish resources, MPEDA implemented a moratorium on the registration of new fish meal and fish oil units w.e.f. 1st January, 2020."

1.34. On being asked about the details of the actual employment generated State/UT wise through various Fish Meal Fish Oil industries set up in the Country up to till 2022, the Department gave the following reply:

"As reported by MPEDA, the total number of Fish Meal and Fish Oil (FMFO) units registered is 102. However, the actual employment generated through various FMFO industries in the country is not maintained with the Department and the details have been sought from respective states/UTs."

1.35. The Committee sought to know the underdeveloped Aquaculture Activities, in the country, if any, due to technical/financial/commercial constraints along with reasons for the same and proposed new activities to utilize the vast available Marine Resources of the country. In this regard, the reply of the Department of Fisheries is reproduced below:-

"For development of aquaculture activities and realize the full potential of available resources, the major challenges include availability of quality seed and feed, disease outbreaks. In addition, Water Quality, Technology Adoption, Access to Credit and Insurance, Lack of Skill Development, Research and Development, Climate Change Impact, Market Access etc. are the other issues before this sector.

Further, New initiatives and economic activities being undertaken for holistic development of the available vast marine fisheries sector are as under:

- i. **National Roll out of Vessel Communication and Support System on Marine Fishing Vessels for Safety of Fishermen at sea:** The Government of India, under the Pradhan Mantri Matsya Sampada Yojana, approved Rs. **364 crore** for installing satellite-based Vessel Communication and Support System on **one lakh** fishing vessels for implementation through New Space India Limited, a Central PSU under the Department of Space, Government of India. These devices will ensure the safety and security of fishermen at sea, enabling them to stay connected with their families and seek assistance during cyclones and storms and while fishing near international borders. This transformative project for the welfare of traditional fishermen is an **Aatma Nirbhar Bharat** initiative would be completed in next 18 months.
- ii. **Installing Artificial Reefs and Sea Ranching for enhancing fish stocks:** **Artificial reefs** are man-made or natural objects placed in selected areas of the marine environment functioning as underwater artificial habitats for marine life that help in rebuilding of fish stocks and in

turn augmenting the productivity of the marine ecosystem and promoting sustainability in marine fisheries. **Sea ranching** or **ocean ranching** is the rearing of fish and shellfish in a controlled environment and let into the sea when they are of a certain size. These activities improve the livelihoods for the fishermen, since the ground in which artificial Reefs and ranching is done assures good fish catch. The wastage of fuel and time for searching for fishing grounds can be avoided, thereby making the

- iii. Fishing voyage economical to the fishermen. Recently, under the Pradhan Mantri Matsya Sampada Yojana, the Department has approved a project for installation of artificial reefs and sea ranching in Coastal States/UTs for enhancing the fish availability to artisanal and small-scale fishermen at a project cost of Rs. 227.80 crore to cover 732 villages in the states of Karnataka, Odisha, Maharashtra, Goa, Gujarat, Kerala, Puducherry, Tamil Nadu, and West Bengal.
- iv. **Seaweed Park in Tamil Nadu:** To harness the potential of seaweed farming and provide additional livelihoods to coastal communities especially fisherwomen, the Government of India has approved the Establishment of a Multipurpose Seaweed Park in Tamil Nadu with an investment of Rs 127.71 crore.
- v. **Species Diversification: Aatma Nirbhar Bharat Initiative.** At present India imports Specific Pathogen Free (SPF) Shrimp Brood stock. In order to address this issue and march towards self-reliance in this area, the Department has launched a National project for Genetic Improvement of *Penaeus indicus* (Indian White Shrimp) through ICAR-CIBA. Further, the Department has extended financial support to RGCA-MPEDA for the project "Domestication of Tiger Shrimp and Nucleus Breeding Centre for *Penaeus monodon*" being undertaken in Andaman and Nicobar Islands which is in the last stage of completion. Also, a national project on genetic improvement of Scampi has been initiated through ICAR-CIFA. In order to address diseases in shrimp, a SPF-Polychaete program has been approved to RGCA-MPEDA. Besides, Government of Kerala has also been supported for genetic improvement project on Karimeen."

C. Role of Union and States/UTs Vis-a-Vis Fisheries Sector of India

1.36. The history of fisheries in India dates back to the days of the Harappan civilization. Reference to fish, its trade and fisher community are found in the Songs of the Sangam Age (1st to 4th Century A.D.). The importance and the role of fisheries sector was officially recognized in India, through the enactment of the 'Indian Fisheries Act' in 1897. This Act laid the foundation of the development of the fisheries sector in India and delineated the responsibility of the provinces, towards the development and

conservation of fisheries in the country. Through this Act, the provinces were empowered to formulate Rules/Laws for the conservation of the fish and fisheries resources.

1.37. The Subject Matter of 'Fisheries' is listed in the State List (Entry-21 under Seventh Schedule of Article 246 of the Constitution of India, however, the Union Government supplements the efforts of the States/UTs for development of the fisheries and aquaculture sector. Inland sector is by and large, fully in the domain of State Governments while marine sector is a shared responsibility between the Central and Coastal State Governments. Coastal States/UTs are responsible for development, management and regulation of fisheries in the sea waters within the 12 nautical miles (22 km) from the base line. Government of India is responsible for the development and regulation of fisheries in the EEZ waters (200 nautical miles / 370 km) beyond 12 nautical miles.

1.38. As Fisheries is a State Subject, so historically investments in the sector, particularly in the fishing villages/coastal fishing villages, fishing harbours and ports have been made by the States 'for the welfare and support of the fisherment community'. However, with the growing requirements for resources, technological transfer/advice and policy orientation the efforts of State Government/UT Administrations are supplemented by the Government of India towards the development of the fisheries sector.

Creation of Department of Fisheries

1.39. The matters pertaining to Fisheries Sector was earlier dealt with by the Ministry of Agriculture. In October, 1997, the subject of Fisheries was transferred from Department of Agriculture & Cooperation to the Department of Animal Husbandry and Dairying (DAH&D). The Department of fisheries was carved out from the erstwhile Department of Department of Animal Husbandry, Dairying and Fisheries in February, 2019 to provide sustained and focused attention towards the development of the sector. This was followed by the creation of an independent Ministry of fisheries, Animal Husbandry & Dairying in June, 2019. The main objectives of the Department are to enhance fish production and productivity in an environmentally sustainable and

socially equitable basis, harness the untapped potential of Indian fisheries, conservation of aquatic resources and genetic diversity, preservation of health ecosystems, strengthening of infrastructure in harvest, post-harvest, value-addition & marketing and upliftment of fishers and aqua-farmers communities with gainful employment opportunities and capacity strengthening.

Functions of Department of Fisheries

1.40. The Department is responsible for matters relating to formulation of policies and schemes pertaining to Development of Inland. Marine and Coastal Fisheries and Fishery Institutes including its four subordinate institutions, one autonomous body and one regulatory authority. The Department advises the State Governments/ Union Territories (UTs) in formulation of policies and programmes in the field of fisheries. The main focus of the activities is on the following:

- a. Expansion of Aquaculture in fresh and Brackish water
- b. Conservation and sustainability of Marine Fisheries Resources
- c. Promotion of Mariculture. Seaweed Cultivation, Cage Culture, RAS (Re-circulating Aquaculture System), Ornamental Fisheries, Cold Water Fisheries and Fisheries Trade
- d. Development of Fisheries Infrastructure
- e. Inland Fisheries Development
- f. Establishment of the network of Aquatic quarantine
- g. Mapping of water bodies through GIS etc.

Demand for a Separate Research Council for Fishery Sector

1.41. The Committee noted that Shrimp Culture contributes around ninety Percent to the revenue generated through exports. The need for a specialised Research Institute to give focussed and in-depth research to promote new technologies in fisheries including Shrimp Culture was highlighted during the sitting of the Committee held on 15.11.2022 for taking oral evidence of the representatives of the Department of Fisheries on the subject 'Employment Generation and Revenue Earning Potential of Fisheries Sector'. During the course of discussion, the Committee appreciated establishment of separate Department of Fisheries and also expressed their desire that a separate Research Council for Fishery Sector namely Indian Council for Fishery and

Aquaculture Research on the lines of Indian Council of Agriculture Research and all the Fishery Research Institutes be constituted under the ambit of Department of Fisheries. Responding to the observations/queries, Secretary Department of Fisheries deposed before the Committee as under :

"The Department also recognizes that there is a need for constituting a separate Research Council. This has been under discussion for the last three years. Frankly speaking, Indian Council of Agriculture Research (ICAR) does not agree with it. But we are moving the paper to have a separate research council for this sector"

1.42. To a Post-evidence query of the Committee seeking details regarding the steps taken by the Department for setting up of a separate Research Council for Veterinary science/Annual Science and Fishermen Science in the similar pattern as Indian Council of Agricultural Research (ICAR), the Department of Fisheries submitted as under :-

"There was a proposal initiated by Department of Animal Husbandry & Dairying for establishment of a research council for Veterinary science/Annual Science and Fishermen Science in the similar pattern as Indian Council of Agricultural Research (ICAR) by segregating fishers and Veterinary/Annual Science Wing from ICAR. In this regard, a high-level committee was constituted under the chairmanship of Dr. Sanjiv Kumar Balayan, Hon'ble MoS, FAHD. Recommendations have been made by the committee and recommendations were given however, the matter has not been finalized and final decision is yet to be taken."

Schemes and Programmes of Department of Fisheries

1.43. The Government of India has taken several initiatives to harness the fisheries sector's potential through implementation of various Centrally Sponsored Schemes (CSSs) and Central Sector Schemes (CSs). The estimated employment generation of these interventions is summarized in the Table given below:-

| S. No. | Scheme | Year of Implementation | Estimated Employment Generation (Direct & Indirect) |
|---------------|--|-------------------------------|--|
| 1 | CSS – Blue Revolution (BR) | 2015 – 2020 | 1453688 |
| 2 | Fishers Infrastructure Development Fund (FIDF) | 2018 – 2023 | 940551 |

| | | | |
|--------------|--|-------------|----------------|
| 3 | Pradhan Mantri Matsya Sampada Yojana (PMMSY) | 2020 – 2025 | 5500000 |
| Total | | | 7894239 |

1.44. The Centrally Sponsored Scheme – Blue Revolution (CSS-BR) was launched in 2015-16 for Integrated Development and Management of Fisheries for 5 years (2015-16 to 2019-20) with a central financial outlay of Rs.3000 Crore. During the 5 years of its implementation, the CSS-Blue Revolution has resulted in the development of the fisheries sector in terms of enhancement of fish production and productivity, post-harvest infrastructure, and marketing. Blue Revolution enshrined the vision, “Creating an enabling environment for integrated and holistic development and management of fisheries and improving the socio-economic conditions of fishers and fish farmers keeping in view the sustainability, bio-security and environmental concerns.” The scheme ended on 31.03.2020.

Need for Awareness Campaign on Schemes and Programmes

1.45. The Committee enquired about the measures taken by the Department to promote effective dissemination of information through Digital Networks to enable producers/Fish Farmers to eliminate middlemen and reach out to more people/customers directly. The Department in its reply stated as under:-

"Department of Fisheries (MoFAH&D) had been forthcoming in upgrading its digital network and systems to disburse information and enhance outreach to the public. Various open sources of information are available such as websites of Department of Fisheries (MoFAH&D), National Fisheries Development Board (NFDB) and PMMSY. The websites are interlinked as well.

Launch of applications like Fish Market Price Information System (FMPIS) and Matsya Setu have been a key in making on-ground/real time information available to fishers and fisher folks. FMPIS is used for analyses of information on fish prices in fish markets at major cities and towns through a mobile based application while Matsya setu app aims to educate aqua farmers about the latest technologies to enhance their operations. Additionally, to enhance outreach, efforts are being made to link sector related information on Umang app. The central agencies and states/UTs have been very active on social media and use diversified content to impart information and generate awareness about the activities in the sector. To garner attention and support of focused viewers, the social media content is specifically tagged, while for convenience and ease of usability, aforesaid websites include important hyperlinks such as “Department

of Fisheries”, “Department of Animal Husbandry & Dairying”, “NFDB”, “MPEDA”, “CAA”, “FSI”, “FIDF”, “PMNRF”, “Invest India”, “myGov”.

The Management Information System (MIS) dashboard launched under the PMMSY scheme complements all the above efforts by *strengthening internal data management* between the States/UTs and intends to support the center for improved decision making, gap analysis, suggest remedial actions and project implementation. The government further plans to take up many more digital initiatives based on regions and pressing issues thus promoting *Digital India*."

1.46. The Committee desired to know about the steps taken towards creation of awareness among Fishers/Fish Farmers regarding Welfare Schemes being implemented by the Government under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) for their upliftment. The Department submitted the following reply:

- i. "Department has created a website which comprises of important and updated information about PMMSY scheme including implementation of Group Accident Insurance Scheme (GAIS), Livelihood and Nutritional support and other welfare measures, modalities of operation, scheme implementation, coverage, premium and sharing pattern. All of these factors have been clearly laid out on the website. For tracking status, the GAIS website also allows to enter details through claim intimation and claim status.
- ii. For information dissemination purposes, States/UTs fisheries departments have also mentioned details of GAIS on their respective department of fisheries official website.
- iii. Regular training and orientation programs are being conducted by States/UTs for awareness creation about the scheme and its benefits.
- iv. Besides, Department of Fisheries (MoFAH&D) through NFDB has utilised newspapers, publications and brochures, social media platforms (LinkedIn, Twitter) to enlist information about the scheme, provisions, cover, etc. to a larger group.
- v. A specific insurance cell is based at the NFDB office, in Hyderabad. The cell is responsible for collecting and collating information from states across India. The cell, along with the third-party insurance agency acts as a connection between Department of Fisheries (MoFAH&D)and/or NFDB and the scheme beneficiaries; especially for highly vulnerable states such as Telangana, Odisha, etc.
- vi. Moreover, recently, NFDB has exclusively developed a subscription-based platform called 'Fishing Chimes' which is utilized for outreach activities, and knowledge dissemination. It is an open platform that can be accessed by to the public through a subscription fee. The platform contains complete information on GAIS.

- vii. Extensive orientation and training programs are conducted on a regular basis across all states for scheme beneficiaries including MIS-based training programs for data entry operators."

1.47. On being asked about the measures contemplated to ensure that model Detailed Project Reports (DPR's) are made available on the Department's Website as well as State Government Offices to help entrepreneurs in the Fishing Sector in preparing their Project Reports. The Department submitted the following reply:

"Department of Fisheries (MoFAH&D) has created a separate tab on the National Fisheries Development Board website, with the name "Templates" which provides a "Blank template for preparation of DPR for fisheries projects" and the same is available in more than one language. In addition to the available templates, central and state officials also provide relevant advisory to potential applicants/beneficiaries' from time to time."

Insurance Coverage for Fish Farmers

1.48. The Committee desired to know whether the Department has any plan to insure Fish Farmers (similar on the lines of Pradhan Mantri Fasal Bima Yojana) who bear heavy losses during heavy rainfalls that is when the gates of reservoirs and dams are opened and the seeds which are being planted by them in these dams get washed away. The Department in its reply stated the following:

"Insurance is something new in fisheries sector. It was started mostly in shrimp. It was a big failure. We are designing a scheme but it will take some time. It may not come immediately. The suggestion of having insurance for the dam fishers against heavy rainfall is possible. It is a very welcome suggestion. We will work on that. There is no human intervention. Unlike the crop insurance, it is just based on rainfall. It can be monitored on day to day basis. This is insurable. We can do that."

1.49. When further inquired as to whether the Department envisages any Schemes for insurance coverage to protect these Dam Fishers against heavy rainfall/natural disaster, the Department submitted the following:

"Department of Fisheries does not have the provision to crop insurance however the Department through NFDB, under PMMSY, is implementing Group Accident Insurance Scheme (GAIS) for fishers since 26.07.2021. Under this scheme, fishers and any other category of persons directly involved in fishing and fisheries-related activities within the age group of 18 to 70 years is eligible for insurance coverage of Rs.5.00 lakhs against accidental death or permanent total

disability, Rs. 2.50 lakh against accidental permanent partial disability and Rs. 25,000/- is provided against accidental hospitalization.

Fishers involved in fishing at reservoirs/dams are also eligible to insure their lives against heavy rainfall/ natural disaster under the above scheme through the respective State fisheries department/Union Territories. During 2021-22 (from 26.07.21 to 25.07.22) 29,11,588 fishers belonging to 18 States and 7 UT's have been covered under this scheme through a payment of Rs.16,73,02,285/- as insurance premium while during 2022-23, 31,89,057 fishers from 22 States and 7 UTs have so far been covered through a payment of Rs.20,25,21,881/- as total premium amount.

CHAPTER - II

Production, Consumption and Infrastructure Development in Fisheries Sector

Fisheries Sector has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food, at the same time it is an instrument of livelihood for a large section of economically backward population of the country. Fisheries Sector occupies an important place in the socio-economic development of the country. Fisheries is a fast-growing sector in India, which provides nutrition and food security to a large population of the country besides providing income and employment to more than 2.80 crore people.

A. Production / Consumption in Fisheries Sector against Demand and Supply

2.2 India is the Third Largest Fish Producing country in the world and accounts for 7.96 Percent of the Global Production. The total fish production during FY 2022-23 is estimated at 16.25 Million Metric Tonnes (MMT) with a contribution of 12.12 MMT from Inland Sector and 4.13 MMT from Marine Sector. The Annual Average Growth Rate in the Fisheries Sector has been 7% over the last five years. *(Sub-para-1 of Para-2.1 AR 2022-23)* In 2018, total fisheries potential of India was estimated at 22.31 MMT consisting of the Marine Fisheries potential at 5.31 MMT and the Inland Fisheries potential at 17 MMT. India is also a major producer of fish through Aquaculture and ranks second in the world after China. Inland fish production constitutes about 75 Percent of the total fish production of the country. The fish production in the country has shown continuous and sustained increment since independence. During 2021-22, 77 Percent of Marine Fisheries potential and 71 Percent of the Inland Fisheries potential have been harnessed

2.3 On being asked the steps taken to increase the Aquaculture Production and domestic fish consumption from 5kg to 12 kg Per Capita, per Year, the Department stated:

"To ensure increase in domestic consumption of fish, the production needs to increase and accordingly, Department of Fisheries is promoting both marine and inland fisheries sectors including aquaculture with inputs, financial support and facilities like brood banks, hatcheries, rearing facilities, feed units and infusion of

technology. In addition, concessional loan are being given under FIDF to provide investment in critical infrastructures. With these steps Department aims to raise fish production to 22 MMT by 2024-25. This will entail per capita fish availability to around 12 kgs. However, this alone will not translate into increased consumption given on the fact that fish is not a preferred food in large parts of country and also not easily and conveniently available to those willing to try it. Accordingly the Department has a 2- pronged strategy:

- (i) To expand and strengthen marketing in form of hygienic markets, mobile vending and cold chains to support the movement of this highly perishable commodity.
- (ii) To raise awareness about the benefits of eating fish and about the different ways in which it can be eaten and relished.

Under PMMSY infrastructural funds have been earmarked for post-harvest and marketing infrastructure and so far Rs. 1615 Cr. proposal with an outlay of Rs. 3959 Cr. have been approved. Further, to raise awareness the Department has been organizing fish festivals/fish mela through NFDB/ States/ UTs and organizing webinar from time to time.

Besides, the Department is taking up region specific digital campaigns, broadcasting of jingles, advertisements in print media, displaying of hoardings/posters on nutritional aspects of fish, organizing seminars/workshops, participating in programs such as *Poshaan Mela*, *Annadata Devo Bhava*. Entrepreneurs are also being encouraged to create value added products and newer forms of the marketing to attract new consumers".

2.4 When asked about the Schemes contemplated for increasing fish consumption, on the basis of the Demand Study Report of National Council of Applied Economic Research, the Department stated:-

"The Department of Fisheries had engaged National Council of Applied Economic Research (NCAER) to conduct a study on "Demand of Fisheries Sector in India" under the Pradhan Mantri Matsya Sampada Yojana (PMMSY). As per the scope of the study, it will estimate demand and supply gap of fish (state-wise and major species-wise) and determine parameters that influence the demand for fish across States/UTs and their relative influence on the aggregate demand function.

The findings of the aforesaid study will be used to formulate region specific strategies to increase fish consumption such as promoting the preferred varieties to utilize, set up of appropriate marketing infrastructure and to fine tune the marketing campaign. No new schemes are proposed at the moment and existing provision of PMMSY will be utilized for the same"

2.5 The Committee desired to know whether the Department has any Programmes to promote and make available Frozen Fish, so that the consumption of fish can be increased up to the level of Japan's consumption by 2047, which is about 24kg Per Capita, the Department stated:-

"World-wide, trade in frozen fish constitutes 80% of trade in fish, fish products. But in India, it is negligible because of perception that there is no demand for frozen fish. Increase in marketing for frozen fish will improve availability of quality fish on non-fish producing areas. Accordingly Department of Fisheries has already engaged National Council of Applied Economic Research (NCAER) to conduct a study on "Demand of Fisheries Sector in India" wherein along with the preference for fish species, pattern and reason for preference of people including for frozen fish will be studied in detail.

Based on the study results, the Department along with NFDB will formulate appropriate strategies in conjunction with private sector to boost sale and consumption of frozen fish."

Post-Harvest Losses

2.6 The Department of Fisheries has stated that the average level of post-harvest losses in fisheries sector is reported to be 25 to 30 Percent. No comprehensive study has been done so far to assess the Percentage of post-harvest losses in fisheries sector. The Ministry of Fisheries, Animal Husbandry and Dairying is implementing (i) Pradhan Mantri Matsya Sampada Yojana (PMMSY) and (ii) Fisheries and Aquaculture Infrastructure Development Fund (FIDF) for development of fisheries sector in the country including reduction of post-harvest losses. Under PMMSY, in order to provide safe landing, berthing & post-harvest infrastructure facilities so far 48 projects worth Rs.2526 crore have been approved for development and modernization of fishing harbours and fish landing centres in the country. Besides, 562 Ice plants/cold storages, 294 Refrigerated vehicles and 1138 insulated vehicles of total project cost of Rs.745 crore have been supported for fish preservation and transport so as to reduce the post-harvest losses in fisheries sector. Under FIDF, 22nos. of fishing harbours and 24 nos. of fish landing centre projects have been approved at a total cost of Rs.4905.77 crore and Rs.182.20 crore respectively. Further, steps taken by National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT) towards reduction of Post-harvest losses are as under:

- i. Development of Value added fishery products through process and product diversification from all varieties of fish including low value, unconventional species and seasonally abundant fishes.
- ii. Development and transfer of Technology to beneficiaries consisting of rural fishermen community, small scale industries.
- iii. Imparting training in the field of post-harvest technology, refrigeration technology, Quality control and value added products. Further, NIFPHATT also provides consultancies and training for rural development programmes/ women empowerment programmes in fish processing, supporting local fish farmers, self-help groups of fisher community, fishermen's cooperative societies functioning under Panchayath Raj Institution.
- iv. Besides, NIFPHATT also popularizes and market tests value added products of all fish varieties (including low value, unconventional species and seasonally abundant fishes) and develop markets in all the states with added attention to rural areas and enthusing entrepreneurs to enter into sea food processing industry.

2.7 The Committee desired to know about the Percentage of Post-Harvest Losses for the last five years State/UT wise along with the steps taken by the Department to modernize and strengthen the value chain and improving the harbours so as to reduce the Post Harvest Losses. The Department, in its reply, stated:-

"One of the objectives of PMMSY is to reduce the Post-Harvest Losses (PHL) from currently reported 20-25% to about 10%. As development of infrastructure is key to reducing post-harvest losses, especially that of Fishing Harbours and Fish Landing Centres. Hence, Department of Fisheries has allocated a total investment of ~Rs.7461Crore under Blue Revolution, FIDF and PMMSY which includes development of FH/FLCs. Under PMMSY, proposals under centrally sponsored component and Central Sector component for 22 Fishing Harbours (FH)/ Fish Landing Centers (FLC) have been approved with a total cost of Rs. 2049.23 Crore.

Under FIDF, proposals for 20 new FHs and 15 FLCs with a total outlay of Rs 4593.83 Crores have been approved for concessional finance. Similarly, under Blue Revolution, 1423 Cr has been approved for development of 12 nos Fishing Harbour/ Fish Landing Centers."

2.8 The Committee having noted that the target for reduction of post-harvest losses under the Pradhan Mantri Matsya Sampada Yojana, is up to 10 % by the year 2024-25 and therefore desired to know the Percentage of post-harvest losses during the last five years Percentage and State/UT wise. The Department, in its reply, stated:-

"The Percentage of post-harvest losses in fisheries sector is reported to be 20-25 Percent. No comprehensive study has been done during the last five years to assess the Percentage of post-harvest losses in fisheries sector."

B. Import and Export of Fisheries Products

2.9 Fish and Fish products are among the most traded food commodities in the world with export accounting for around 38 Percent of total fish production (live weight equivalent). Trading in livestock and livestock products including fish/fishery products are regulated as per the Foreign Trade Policy-Export Import Policy (EXIM) of Government of India, which is implemented by Department of Commerce. However, in order to prevent ingress of Exotic Diseases through import of livestock and livestock products as well as fish and fishery products, Ministry of Fisheries, Animal Husbandry and Dairying regulates trade in such products as per provision of Section 3 and Section 3A of the Livestock Importation Act, 1898. The Department oversees the Sanitary and Phyto-sanitary issues for the import and export of fish and fishery products.

Import of Fisheries Products

2.10 Livestock and fish/fishery products are categorized under Open General Licence (OGL) as per EXIM Policy. Import of these products is basically allowed and is subject of Sanitary import Permits (SIPs which are guided by risk analysis done through Veterinary Health Certificates to be accompanied with the import of livestock products.

2.11 As regards import of Fisheries products into the country, annual cost value of import of fisheries products in the last 5 years and the steps taken to boost domestic production, the Department of Fisheries furnished the following details:

"India imports a variety of fisheries products, including Live fish, Fresh or chilled fish, Frozen Fish, Fish Fillets, Dried Fish, Crustacean, Mollusc, Invertebrates, Fish meal, Fish oil and Value added products (seafood preparations) etc. The country is a major consumer and importer of seafood, sourcing products from different countries to meet domestic demand and preferences.

As such there is no shortage of domestic varieties. However, Fish varieties like Haddock, Cod, Flat- fish, Salmon, Pollock, sturgeon fish (fish roes), Argentinean

Red Shrimp, Norway Lobster, crabs etc are only found in Temperate countries and not available in India. Some of the varieties are being imported for supply to HoReCa (Hotel, Restaurants and Cafes) and some goes for reprocessing and value additions, therefore, import of these commodities cannot be avoided.

During the financial year 2022-23, India imported 63016 MT of Seafood worth Rs. 1984 Crore. India Imported marine products from 64 countries. Bangladesh retained the title as the major exporter of seafood with a share of 24.4% in terms of INR followed by South East Asia 19.6% and USA 18.9% etc. The annual cost value of marine products during last five years from 2018-19 are as under:

Table 1: Import of Marine products since 2018-19:

| Year | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
|--------------------|----------|----------|----------|---------|---------|
| Qty in MT | 56933.36 | 72405.68 | 101424.7 | 76618 | 63016 |
| Value in Rs. Crore | 1088 | 1290 | 1669 | 1668 | 1984 |

The major categories of the products imported for fisheries sectors are listed below:

- i. Fish and fish products in various forms: Live, Fresh, Chilled, Frozen, Dried, Smoked, Flours, Meals and Pellets Fish and crustaceans, molluscs & other aquatic invertebrates, Fish Fillets, fish meat etc.
- ii. Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates
- iii. Fish Oil and related products
- iv. Fish Meal, Crustacean Meal and other meal and flour (Feed Ingredients)
- v. Coral and Similar Materials, Shells of Molluscs, Crustaceans, echinoderms and cuttle-bone etc.
- vi. Fish nails, fish bones, Scales, other fish wastes etc.
- vii. Shrimp feed and Fish Feed (like larval and brood stock maturation diets, liquid feed, ornamental fish feed, compounded animal feeds etc). The commodities also include feed for animal husbandry sector, however major import is for fisheries sector.

The annual cost value of various fish and fisheries products imported for fisheries sector during last five years (2018-19 to 2022-23) have been tabulated as below.

| S. No. | Chapter | Description | (Value in Rs. Lakh) | | | | |
|--------|---------|---|---------------------|----------|-----------|-----------|----------|
| | | | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
| 1 | 3 | Fish and crustaceans, molluscs and other aquatic invertebrates. | 74512.5 | 91631.15 | 112005.68 | 125672.82 | 152899.1 |

| | | | | | | | |
|---|-------|---|------------------|------------------|------------------|------------------|------------------|
| 2 | 5 | Coral and similar materials, unworked or simply prepare, shells of molluscs, crustaceans etc | 4473.55 | 3345.51 | 2013.74 | 3402.3 | 4422.95 |
| 3 | 5 | Artemia or other dead products of crustaceans | 5333.49 | 2574.31 | 5280.58 | 5021.62 | 17759.53 |
| 4 | 15 | Fish oil and related products | 6442.26 | 8628.28 | 7149.38 | 11185.89 | 9463.26 |
| 5 | 16 | Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates | 4019.68 | 5342.13 | 5842.62 | 9141.01 | 5714.55 |
| 6 | 23 | Fish feed/shrimp feed/fish meal, crustacean meal/other preparations of animal feeding/and other meal and flour (feed ingredients) | 299572.9 | 277431.91 | 297591.43 | 345780.43 | 338382.78 |
| | Total | | 394354.38 | 388953.29 | 429883.43 | 500204.07 | 528642.17 |

(Source: DoC, Export Import Data Bank)

The broad strategies to boost the domestic production includes promoting establishment of brood stock multiplication centres, Genetic improvement programmes (NBCs), Species Diversification, Value addition and strengthening of post-harvest infrastructure facilitates, Promoting production of broodstock maturation diet and larval diets, Alternatives for fish meal and Optimization of cost of production for pangasius and Tilapia.

Under Atma Nirbhar Bharat, the Department has already taken the following steps to phase out the imports of shrimp brood stock and to reduce the dependency on single shrimp species (i.e *Litopenaeus vannamei*).

- Promoting establishment of Broodstock Multiplication Centres (BMCs) for *L. vannamei* and *P. monodon*. So far, out of 5 BMCs permitted, three are operational and two are under construction.
- For promoting species diversification and reducing dependency on *L. vannamei* shrimp, the Department has approved a Genetic Improvement Program to Central Institute of Brackishwater Aquaculture (CIBA) for development of *Penaeus indicus* an indigenous Shrimp (Indian white shrimp) aquaculture with a total project cost of Rs. 2504.40 lakh under central sector component of PMMSY.
- The Department is also supporting NBC project of MPEDA located at Andaman and Nicobar Islands on Domestication of Tiger Shrimp (*Penaeus monodon*). During 2021-22, Rs 12.07 crore has been funded under the PMMSY to complete the project and deliver SPF domesticated brood stocks to the hatchery operators."

Export of Fisheries Products

2.12 As per Department of Fisheries, during the financial year 2021-22, export of marine products stood at 1.37 MMT and valued at Rs.57,586.48 Crores (USD: 7.76 billion) with an impressive average annual growth rate of about 10% in recent years. As for overseas markets, USA continued to be the major importer of Indian seafood with an import worth USD 3371.66Million, accounting for a share of 43.45 Percent in terms of US dollar value.

2.13 On being asked by the Committee about the strategies to reach the Export Target set under PMMSY. The Department in its reply submitted the following:

"The broad strategies to reach the export targets set under PMMSY are as below;

- i. Increase in area under shrimp cultivations
- ii. Increase shrimp productivity through species diversification and disease control
- iii. Improve post harvest infrastructure like establishment of Fishing Harbours/ Fish landing Centres and Cold chain facilities
- iv. Improving certification and traceability
- v. Awareness for quality products."

2.14 On being asked about the contribution of export of fish and fishery products during the last five years, the Department furnished the following details :

"Value-wise contribution of fisheries exports to the India's total export

| Year | Exports of Fish and Fisheries products [Value in Rs. Crore] | India's Total Export [Value in Rs. Crore] | % share to India's Total Exports |
|---------|---|---|----------------------------------|
| 2017-18 | 45106.89 | 1956514.5 | 2.31 |
| 2018-19 | 46589.37 | 2307726.2 | 2.02 |
| 2019-20 | 46662.85 | 2219854.2 | 2.10 |
| 2020-21 | 43720.98 | 2159043.2 | 2.03 |
| 2021-22 | 57586.48 | 3147021.5 | 1.83 |
| | Source: MPEDA | Source: DGFT | |

2.15 On being asked about the contribution of Fisheries Exports in Employment and Revenue Generation and the reasons for the consistent fall in the value of fisheries exports from 2017-18 to 2021-22, the Department gave the following reply:

"Marine exports reached an all-time high of Rs 57,586.48 crore in FY 2021-22. The value wise export of fish and fisheries products has been increased consistently from year 2017-18 to 2021-22 in addition to India's total exports to other countries except in the year 2020-21. The fall in exports of marine products during FY 2020-21 is reported mainly due to global impact of Covid-19

pandemic on account of restrictions imposed in global markets, hotels and the hospitality sectors by importing countries.

The consistent increase in exports of fish and fishery products from 2017–18 to 2021–22 (with the exception of 2020–21) if measured in value-wise Percentage contribution to India's total export, shows a declining trend. This is primarily due to the rapid growth of total exports across all sectors."

2.16 On being asked about the reasons which are hampering the Fish Exports and what measures has the Department planned to overcome the hurdles faced by the Fish Exports, the Department submitted:

"The increase in production along with the demand of Indian marine products such as shrimps in the international markets are two driving factors for exports. Currently, issues pertaining to Sanitary and Phyto-sanitary (SPS) and Technical Barrier to Trade (TBT) hamper the exports to various countries.

For increasing exports, increasing of both production and variety are important. The Department has issued advisory to 9 potential states for area expansion including Maharashtra, Odisha, Goa, Gujarat etc. In order to tackle SPS issues, aquatic health management such as quarantine and bio security measures are being strengthened. Further, for export related matters, the Department of Fisheries is working closely with Department of Commerce to resolve the issues as and when required. Additionally, production of tilapia, trouts, scampi, pangasius etc is being enhanced to include variety of fish species for increasing product offering for exports."

2.17 When asked about the comparative details of the contribution of Fisheries Sector in total exports of the country for the last five years, the Department submitted the following:

"State wise export details of Marine products during last 5 years is given below:

| STATE WISE EXPORT DETAILS | | | | | | |
|---|----|---------|---------|---------|---------|---------|
| Q: Quantity in MT, V: Value in Rs. Crore, \$: US Dollar Million | | | | | | |
| | | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| GUJARAT | Q | 291251 | 289348 | 252712 | 203917 | 200099 |
| | V | 5039.08 | 5283.59 | 5001.43 | 4188.52 | 4421.10 |
| | \$ | 790.81 | 756.88 | 713.42 | 572.08 | 599.07 |
| MAHARASHTRA | Q | 201509 | 176152 | 151425 | 110822 | 193999 |
| | V | 5257.45 | 5345.82 | 4829.17 | 3684.94 | 7303.92 |

| STATE WISE EXPORT DETAILS | | | | | | |
|---|----|----------------|----------------|----------------|----------------|----------------|
| Q: Quantity in MT, V: Value in Rs. Crore, \$: US Dollar Million | | | | | | |
| | | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| | \$ | 823.36 | 771.33 | 690.70 | 502.87 | 935.77 |
| GOA | Q | 55330 | 43782 | 21498 | 16549 | 36057 |
| | V | 885.40 | 831.61 | 520.65 | 435.25 | 730.64 |
| | \$ | 138.95 | 119.06 | 74.56 | 59.47 | 99.03 |
| KARNATAKA | Q | 146771 | 148672 | 111465 | 121348 | 120427 |
| | V | 1806.40 | 1992.00 | 1520.10 | 1689.14 | 1962.19 |
| | \$ | 283.54 | 284.30 | 220.89 | 231.13 | 266.26 |
| KERALA | Q | 195177 | 187848 | 163563 | 157698 | 182430 |
| | V | 6656.90 | 6312.92 | 5672.27 | 5623.12 | 6971.56 |
| | \$ | 1045.55 | 911.02 | 810.44 | 766.76 | 958.17 |
| TAMIL NADU | Q | 115436 | 133339 | 130377 | 110023 | 114810 |
| | V | 5688.95 | 6028.88 | 6465.71 | 5565.48 | 6559.64 |
| | \$ | 893.70 | 872.56 | 925.41 | 758.05 | 892.92 |
| ANDHRA PRADESH | Q | 241272 | 261618 | 293314 | 279992 | 324904 |
| | V | 13411.49 | 13854.74 | 15498.64 | 15831.74 | 20035.49 |
| | \$ | 2106.57 | 2007.29 | 2217.94 | 2154.55 | 2720.96 |
| TELANGANA | Q | 0 | 0 | 0 | 0 | 3102 |
| | V | 0.00 | 0.00 | 0.00 | 0.00 | 156.91 |
| | \$ | 0.00 | 0.00 | 0.00 | 0.00 | 21.27 |
| ODISHA | Q | 53344 | 62608 | 66671 | 60718 | 86765 |
| | V | 2871.61 | 2974.12 | 3243.93 | 3107.68 | 4627.91 |
| | \$ | 451.03 | 432.29 | 465.01 | 422.46 | 636.37 |
| WEST BENGAL | Q | 77155 | 89192 | 98626 | 88443 | 103398 |
| | V | 3489.61 | 3965.69 | 3910.95 | 3595.12 | 4742.47 |
| | \$ | 548.04 | 573.77 | 560.35 | 489.58 | 619.68 |
| DELHI | Q | 0 | 0 | 0 | 0 | 766 |
| | V | 0.00 | 0.00 | 0.00 | 0.00 | 39.00 |
| | \$ | 0.00 | 0.00 | 0.00 | 0.00 | 5.29 |
| OTHERS | Q | 0 | 0 | 0 | 0 | 2507 |
| | V | 0.00 | 0.00 | 0.00 | 0.00 | 35.64 |
| | \$ | 0.00 | 0.00 | 0.00 | 0.00 | 4.80 |
| TOTAL | Q | 1377244 | 1392559 | 1289651 | 1149510 | 1369264 |
| | V | 45106.89 | 46589.37 | 46662.85 | 43720.98 | 57586.48 |
| | \$ | 7081.55 | 6728.51 | 6678.70 | 5956.94 | 7759.58 |

2.18 The Committee observed that barring a few states, export of marine products for the period from 2017-18 to 2021-22 from States such as Gujarat, Maharashtra, Goa, Karnataka and Kerala have been consistently decreasing. When asked about the reasons for the same, the Department submitted the following:

"As per the state wise export details during last five years, it has been observed that in terms of value, the exports from Maharashtra and Kerala have shown a continuous increase from year 2017-2022 while a slight dip has been observed if export of the aforesaid states are measured in terms of quantity. Further, for the state of Karnataka, there is a slight decrease in export quantity but export value in terms of rupees has increased over the period. While a few states like Goa and Gujarat have shown decreasing trend in terms of export quantity and value.

The above decrease in quantity maybe due to various reasons across last five years such as COVID-19 restrictions in FY 2020-22, lack of emphasis on development of fisheries by state, on-ground challenges faced by fishers and fisher folks, timely unavailability of inputs particularly quality seed, feed etc. As fisheries is a subject under State list and all Fisheries related activities in the State are largely governed by respective State Fisheries Departments hence the progress in aforesaid states is being reviewed from time to time for providing the necessary support and guidance. "

2.19 The Committee desired to know if the Department has taken any measures to include Inland Fresh Water Fish in total Fish Export of the Country and the steps undertaken by the Department to boost the export of Tilapia fish, which forms the largest Component of exports from Inland Areas. The Department, in its reply, stated:-

"Efforts are continuously being taken for diversification of aquaculture species like tilapia for exports. Tilapia has good demand in the international market and several steps are being taken to promote its production and export. Department of Fisheries is supporting state Governments by providing funding for tilapia hatcheries and tilapia culture through Recirculation Aquaculture System (RAS), cage culture and pond culture systems. Further, for facilitating Ease of Doing Business, Department of Fisheries (MoFAH&D) has authorized States/UTs to issue permissions for establishment of tilapia hatcheries.

MPEDA-Rajiv Gandhi Centre for Aquaculture has standardized the hatchery and grow out farming technology of Genetically Improved Farmed Tilapia (GIFT) at its project site at Manikonda, Krishna-District, Andhra Pradesh. Through selective breeding programme, RGCA has developed an 8th generation of GIFT in Indian condition in technical collaboration with Worldfish, Malaysia. RGCA provides technical consultancy is provided to entrepreneurs apart from giving hands on training on "Breeding, Seed Production & Grow-out farming of Genetically Improved Farmed Tilapia (GIFT)"

i. Export details of Tilapia during last 5 years are given below:

| EXPORT DETAILS OF TILAPIA | | | | | | |
|--|----|----------------|----------------|----------------|----------------|----------------|
| Q: Quantity in M T, V: Value in Rs. Crore, \$: US Dollar Million | | | | | | |
| | | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| TILAPIA | Q | 2439 | 2124 | 1597 | 2489 | 3890 |
| | V | 17.52 | 15.68 | 13.03 | 18.89 | 30.49 |
| | \$ | 2.75 | 2.30 | 1.87 | 2.59 | 4.14 |

*Source: MPEDA

ii. Export details of cultured fish during last 5 years are given below:

| EXPORT DETAILS OF CULTURED FISH | | | | | | |
|--|----|----------------|----------------|----------------|----------------|----------------|
| Q: Quantity in M T, V: Value in Rs. Crore, \$: US Dollar Million | | | | | | |
| | | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| CULTURED FISH (Scampi, Pangas, IMC, etc.) | Q | 3941 | 3967 | 2909 | 3981 | 6938 |
| | V | 50.49 | 55.95 | 49.24 | 55.17 | 94.34 |
| | \$ | 7.94 | 8.11 | 7.06 | 7.52 | 11.45 |

*Source: MPEDA

2.20 The Committee desired to know the steps taken by the Department to include in exports other Inland Fresh Water Fishes also such as Rohu, Catla, Mahseer, Magur, Vaam and Hilsa. The Department in its reply stated the following:

Data on export of culture fish from India shows a nearly threefold increase in quantity from 2,909 tons in 2019-20 to 6,938 tons in 2021-22. Though the exports of fishes like *Hilsa*, *Catla*, *Pangasius* etc, is more than the imports to India however, Government has been promoting the farming of commercially important freshwater fishes for diversifying the fish species exported. This includes promotion of fish species such as *Pangasius*, *tilapia*, *Scampi*, India Major Carps (*Catla*, *Rohu* and *Mrigal*) etc in all states/UTs.

For few commercially important fish species like *Hilsa* and *Vaam*, breeding and seed production technology has not been standardised, therefore at present production of these species mostly comes from Capture fisheries.

2.21 On being enquired about the steps taken by the Department to provide International Market for Monodon Shrimps Farmers and whether the Department plans to give any kind of grants to States so that the States can in turn subsidize electricity tariffs for Shrimp Farmers, the Department submitted:-

"The DoF, GoI has approved Broodstock Multiplication Centres for SPF P. Monodon and Coastal Aquaculture Authority has empanelled 2 international

suppliers to support import of SPF seeds. Department of Fisheries has also issued advisories to states and intervened, as and when required, to subsidise the electricity tariffs for shrimp farmers.

The Marine Products Export Development Authority (MPEDA), Department of Commerce has been taking various steps to promote export of marine products from India to other countries including brand promotion. These inter alia include participation in various trade fairs and exhibitions and organizing 62 Virtual Buyer Seller Meets (VBSMs) with the importing countries for the benefit of the stakeholders. Additionally, MPEDA has been reaching out to 62 Indian Missions in selected markets for assistance to promote seafood exports from India. In addition, during Covid Pandemic, MPEDA formulated COVID 19 guidelines for seafood sector and issued advisories to exporters to avoid covid related contamination.

Further, the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying in the year 2020-21 has rolled out a flagship scheme the Pradhan Mantri Matsya Sampada Yojana (PMMSY) with highest ever investment of Rs. 20050 crores in the fisheries sector for implementation during a period of five years i.e., 2020-21 to 2024-25, in all States/Union Territories. One of the key objectives of the PMMSY is to enhance fisheries exports to Rs 1 (one) lakh crore by 2024-25. Towards meeting this objective and in order to enhance India's export competitiveness and higher price realization, the PMMSY supports a basket of interventions/activities along the fisheries value chain. These include quality fish production, expansion, diversification and intensification of brackish water aquaculture, promotion of export-oriented species, infusion of technology, robust disease management framework, promotion of good aquaculture practices, branding, standards, certification and traceability, training and capacity building, creation of modern post-harvest infrastructure with seamless cold chain, development of modern fishing harbours and fish landing centres, etc. In addition, to address the critical infrastructure requirements of fisheries and aquaculture sectors, the Department of Fisheries, Government of India during 2018-19 has created the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) with a total fund size of Rs 7522.48 crore to provide concessional finance to states/UT and private sector."

2.22 The Committee desired to know whether there are any quality concerns of fish importing countries along with steps taken by the Department to address the same. The Department furnished the following reply:

"The major concerns of fish importing countries are regarding presence of banned antibiotic i.e. Nitrofurantoin and Chloramphenicol in the consignments

exported from India. To address this issue, since 2017 Export Inspection Council (EIC) has started sampling and testing of fish sample prior to export. The initiative has reduced the number of rejected consignment to 2 by 2022. Additionally, MPEDA is implementing pre-harvest test report mechanism to eliminate risk of residue presence at farm level. This test report will also include information about all the input suppliers thus provide traceability of the fish produce to eliminate the risk of presence of banned antibiotics in the fish supply/ value chain.

In addition to this, five countries including Australia, Korea, China, Saudi Arabia and Thailand are obligating India to provide certification along with consignments declaring freedom from relevant WHOA listed diseases. EIC is providing the certification and is engaged in dialogues with respective countries for relaxing the same. Department of Fisheries, Gol is providing consultation in such matters.

Post-COVID 19 Pandemic times, China has implemented Nucleic acid testing on packages to be exported to China from India, earlier this has resulted in rejection of around 100 consignments. This matter was considered as major issue under Technical Barrier to Trade (TBT) and the matter was taken up with China by EIC and Department of Commerce."

C. Infrastructure Development in Fisheries Sector

Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

2.23 The Government of India, in 2018-19, created Fisheries and Aquaculture Infrastructure Development Fund (FIDF) to address the infrastructure gaps in Fisheries Sector, with a total fund size of Rs 7522.48 Cr.. FIDF provides concessional finance (3% interest subvention) to Eligible Entities (EEs), including States/UTs and State entities for development of identified fisheries infrastructure facilities. Since the scheme is demand driven, no state-wise physical targets have been set. The Department of Fisheries has approved the proposals to the tune of Rs.4923.94 Cr. to various States/UTs including the proposals of private beneficiaries. An amount of Rs. 1871.58 Cr. has been sanctioned by Nodal Loaning Entities (NLEs). NABARD has sanctioned an amount of Rs. 1860.28 Cr. to the State Governments and Rs. 11.30 Cr. has been

sanctioned by Scheduled banks to private beneficiaries, respectively. The details of the proposals approved under FIDF are given below:

| SI. No | Name of the Project | Total Project Cost |
|---|-------------------------------|--------------------|
| Proposals of State Governments | | |
| 1 | Tamil Nadu (52 proposals) | 1419.98 |
| 2 | Andhra Pradesh (4 proposals) | 1291.40 |
| 3 | Gujarat (5 proposals) | 1354.92 |
| 4 | West Bengal (10 proposals) | 27.99 |
| 5 | Goa (1 Proposal) | 6.41 |
| 6 | Himachal Pradesh (1 Proposal) | 5.00 |
| 7 | Odisha (3 proposals) | 24.68 |
| 8 | Maharashtra (4 Proposals) | 673.33 |
| | Sub Total | 4803.71 |
| Proposals from Private Entrepreneurs | | |
| | Sub Total | 120.23 |
| | Total | 4923.94 |

"

2.24 Regarding number of proposals approved/sanctioned under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) since its inception, the Department furnished the following reply:-

'The Department of Fisheries, Gol has approved 105 proposals to the tune of Rs.4923.94 crore with Project cost restricted for interest subvention of Rs. 3236.81 crore have been recommended to various States/UTs including the proposals of private beneficiaries, under the demand-driven FIDF Scheme. An amount of Rs.1871.58 crore has been sanctioned by Nodal Loaning Entities (NLEs) while NABARD has sanctioned an amount of Rs.1860.28 crore to the State Governments and Rs.11.30 crore has so far been sanctioned by Scheduled banks to private beneficiaries.' The details of the State/UT and component wise are as under:-

Component-wise proposal approved under FIDF

| SI No | Name of Activity | No. of Proposals Approved under FIDF |
|-------|----------------------------|--------------------------------------|
| 1 | Brood Banks | 2 |
| 2 | Fishing Harbours | 24 |
| 3 | Innovative Projects | 15 |
| 4 | Fish Processing Units | 2 |
| 7 | State Fish Seed Farms | 26 |
| 8 | Aquaculture | 5 |
| 9 | Hatcheries | 2 |
| 10 | Fisheries Training Centers | 5 |
| 11 | Cage Culture in Reservoirs | 1 |
| 12 | Construction of Ice Plants | 3 |
| 13 | Fish Landing Centers | 16 |
| 14 | Cold Storages | 4 |
| | TOTAL | 105 |

**Details of State/UT wise proposal approved under FIDF
(including Government and Private beneficiary)**

| SI No. | Name of State/UT | No. of Proposals approved under FIDF |
|--------|------------------|--------------------------------------|
|--------|------------------|--------------------------------------|

| SI No. | Name of State/UT | No. of Proposals approved under FIDF |
|--------------|-------------------|--------------------------------------|
| 1 | Andhra Pradesh | 8 |
| 2 | Arunachal Pradesh | 1 |
| 3 | Assam | 1 |
| 5 | Goa | 1 |
| 6 | Gujarat | 5 |
| 7 | Haryana | 1 |
| 8 | Himachal Pradesh | 1 |
| 9 | Karnataka | 2 |
| 10 | Kerala | 1 |
| 12 | Maharashtra | 9 |
| 13 | Manipur | 4 |
| 14 | Mizoram | 1 |
| 15 | Odisha | 3 |
| 17 | Tamil Nadu | 54 |
| 18 | Telangana | 1 |
| 20 | Uttar Pradesh | 1 |
| 22 | West Bengal | 10 |
| 25 | Jammu and Kashmir | 1 |
| TOTAL | | 105 |

State-wise loan sanctioned by NABARD:

| S.I No | Name of the State | No. of proposals sanctioned by NABARD | Amount Sanctioned |
|--------|---------------------|---------------------------------------|-------------------|
| 1 | Tamil Nadu | 28 | 798.28 |
| 2 | Gujarat | 4 | 600.00 |
| 3 | Goa | 1 | 5.00 |
| 4 | West Bengal | 3 | 7.00 |
| 5 | Andhra Pradesh | 3 | 450.00 |
| 6 | Private Beneficiary | 3 | 11.30 |
| | Total | 42 | 1871.58 |

2.25 The progress in the implementation of FIDF was examined by the Committee at their sitting held on 15.11.2022 to take oral evidence on the subject on 15.11.2022.

During the sitting, Secretary, Department of Fisheries submitted:-

“In Fisheries and Aquaculture Infrastructure Development Fund (FIDF), we have reached about 60 per cent of our project approval target. The sanction rate is a little low because most of the projects -- that have been approved -- have come in the form of fishing harbors. They are big projects. The States of Andhra Pradesh and Tamil Nadu have taken a large chunk of this money. Originally, when this scheme was envisaged, we had made a separate allocation for deep sea fishing vessels, markets, hatcheries, etc. Simultaneously, after that, when PMMSY came, there was a higher subsidy. So, there were not much takers from the private sector for the FIDF fund because only interest subvention was given. However, we are trying to achieve the targets and we are trying to achieve a convergence between FIDF fund and PMMSY so that a better utilization of both the schemes can happen”.

2.26 As regards State/UT wise Status of Utilisation of Funds / projects sanctioned under the Aquaculture Infrastructure Development Fund (FIDF), the Department furnished the following details:-

"Under the FIDF, the Department of Fisheries provides interest subvention up to 3% per annum for providing the concessional finance by the Nodal Loaning Entities (NLEs) at the interest rate not lower than 5% per annum. The State/UT project wise Status of loan amount sanctioned and released under Fisheries and Aquaculture Infrastructure Development Fund (FIDF) is as under:

| Sl. No. | Name of Borrowing State | Total # of Projects |
|---------|-------------------------|---------------------|
| 1 | Tamil Nadu | 28 |
| 2 | Goa | 1 |
| 3 | Gujarat | 4 |
| 4 | West Bengal | 3 |
| 5 | Andhra Pradesh | 3 |

2.27 When asked about the number of proposals received and approved from Private Entrepreneurs under FIDF since its inception, the Department submitted the following:

"A total of 91 proposals have been received from private beneficiaries out of which 25 proposals have been approved/ recommended by CAMC. As FIDF is a demand driven scheme hence states are being encouraged to mobilise beneficiaries for sharing proposals."

2.28 **Modernization of Fishing Harbours** - Modernization of fishing harbour is another thrust area mainly to improve hygienic conditions of the harbour facilities with the objective of enhancing export earnings and also ease congestion. The modernization project envisages improvement of auction halls, construction of a fish packing hall-cum-truck parking area, improvement of the sanitation and water supply facilities, improvement of electrifications and drainage, resurfacing of wharf backup areas, modernization of the existing buildings, construction of finger jetty, renovation of existing RCC Jetties, re-flooring of wharf frontage area, renovation of tower lightening structures, construction of rainwater harvesting system, construction of chilled fish storage facilities and construction of ice plants & cold storage, processing plants, floating dock / sleep-way, sleep-lift / dry dock, agri-export management etc.

2.29 When enquired about State/UT wise details of all Fish Landing Centers in Inland areas under PMMSY and the steps taken by the Department for providing Cold Chain and Refrigeration Units to Fishermen in Flood prone areas, the Department submitted *inter-alia* as under:

"Department of Fisheries (MoFAH&D) has so far approved State-of-art wholesale fish markets and Modern Integrated fish landing Centres with a total outlay of Rs.20.50 Crore involving Central share of Rs18.45 Crore for establishment in Inland states under PMMSY.

Further, project proposal with a total outlay of Rs. 273.18 Crore, with a central share of Rs. 91.38 Crore has been sanctioned to the flood prone states for providing cold chain and refrigeration units under PMMSY".

CHAPTER - III

Employment Generation and Revenue Earning Potential of Fisheries Sector

In India, it is estimated that the Fisheries sector employs 28 million people directly, including fishers and fish farmers, and almost twice the number indirectly, in the Post-harvest processing and other allied activities. Broadly, about 75% of the fishers are engaged in inland fisheries and about 25% in marine fisheries activities. Employment potential in the sector has high potential in the various activities like production, sale of inputs (vessels, fishing gear, operational inputs, etc.) farming, harvesting, processing, marketing, distribution of fish, and other ancillary activities for marine export. Fishing and aquaculture operations range from informal and small-scale to high level organized and industrial in nature.

A. Gross Value Added by Fisheries Sector

3.2 Fisheries Sector plays an important role in the national economy and the share of Fisheries Sector in the total Gross Value Added (GVA) at constant prices, in 2022-23 is estimated at Rs.1,37,716 Crore that constitutes about 1.09 Percent of the total national GVA and 6.72 Percent of agricultural GVA. Fisheries and aquaculture continue to be an important source of food, nutrition, income and livelihood to millions of people. The Fisheries Sector of India has shown an impressive growth rate of 9.03% (Constant Price: 2011-12) during the years 2015-16 to 2020-21. *(Sub-para-1of Para2.1 of AR-2022-23)* Further, the Per capita Fish Consumption in India is 5 to 6 kg.

3.3 When enquired about the contribution of Fisheries Sector to the Gross Domestic Product (GDP) and overall Employment Generation/Revenue Earnings during the year 2021-22, the Department stated:-

"The Fisheries sector plays an important role in the National Economy and the share of Fisheries Sector in the total Gross Value Added (GVA), at Current Basic Prices, in 2021-2022 is projected at Rs. 2,64,484 Crore that constitutes about 1.24 Percent of the total national GVA. Employment Generation in the Fisheries Sector in India are as below:

| S.N. | Year | Employment Generated |
|--------------|---------|----------------------|
| 1 | 2020-21 | 687522 |
| 2 | 2021-22 | 218491 |
| Total | | 906013 |

3.4 When asked about the contribution of Fisheries Sector in the overall Agricultural contribution to the GDP of the country and the contribution of fisheries sector in doubling of farmer's income by the year 2022, the Department submitted the following:

| Years | Fisheries | Agriculture, forestry and fishing | National GVA | % Share of Fisheries in Agriculture GVA | % Share of Fisheries in National GVA |
|----------------------------------|-----------|-----------------------------------|--------------|---|--------------------------------------|
| Constant Prices (2011-12) | | | | | |
| 2011-12 | 68,027 | 15,01,947 | 81,06,946 | 4.529 | 0.84 |
| 2012-13 | 71,362 | 15,24,288 | 85,46,275 | 4.682 | 0.84 |
| 2013-14 | 76,487 | 16,09,198 | 90,63,649 | 4.753 | 0.84 |
| 2014-15 | 82,232 | 16,05,715 | 97,12,133 | 5.121 | 0.85 |
| 2015-16 | 90,205 | 16,16,146 | 1,04,91,870 | 5.581 | 0.86 |
| 2016-17 | 99,627 | 17,26,004 | 1,13,28,285 | 5.772 | 0.88 |
| 2017-18 | 1,14,730 | 18,40,023 | 1,20,34,171 | 6.235 | 0.95 |
| 2018-19 | 1,24,468 | 18,78,598 | 1,27,33,798 | 6.626 | 0.98 |
| 2019-20 | 1,29,893 | 19,82,303 | 1,32,19,476 | 6.553 | 0.98 |
| 2020-21 | 1,37,716 | 20,48,032 | 12585074 | 6.724 | 1.09 |

From the above table it may be seen that the overall Agriculture Gross Value Added(GVA) at Constant Prices (2011-2012) increases from Rs. 15,01,947 crore to Rs. 20,48,032 crore and Fisheries GVA increases from Rs. 68,027 crore to Rs. 1,37,716 crore. Fisheries sector has expanded 102.44% in 2011-12 to 2020-21 as compared to agriculture sector which has expanded 36.36% during the same period."

3.5 The Committee desired to know the steps taken by the Department to increase the Gross Value Addition to Fish production by the financial year 2024-25 so as to increase the Revenue Generation. The Department furnished the following reply:

"The Department of Fisheries is implementing two schemes "Pradhan Mantri Matsya Sampada Yojana (PMMSY)" and Fisheries and Aquaculture Development Fund (FIDF). Under PMMSY investment of Rs. 20050 Crore is envisaged in the fisheries sector over a period of five years up to 2024-25 in all States/Union Territories. The scheme intends to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, enhancement of fisheries export, establishing a robust fisheries management framework and fishers' welfare.

Under FIDF, a dedicated Fisheries and Aquaculture Development Fund (FIDF) has been created to provide investments in infrastructure to the tune of

INR 7,522 Crore by provision of concessional finance with interest subvention of up to 3% to the Eligible Entities (EEs), including State Governments/Union Territories and State entities for development of identified fisheries infrastructure facilities through Nodal Loaning Entities (NLEs) namely (i) National Bank for Agriculture and Rural Development (NABARD), (ii) National Cooperatives Development Corporation (NCDC) and (iii) Scheduled Banks. The scheme was started in 2018-19 and will be in operation till 2022-23."

B. Pradhan Mantri Matsya Sampada Yojana (PMMSY)

3.6 The Government of India had on 20th May, 2020 approved the "Pradhan Mantri Matsya Sampada Yojana" (PMMSY) under the flagship program of AtmaNirbhar Bharat Special Package for Fisheries Sector. PMMSY marks the highest ever investment of Rs.20050 crores in fisheries sector over a period of 5 years from 2020-21 to 2024-25 in all States/Union Territories to drive the sustainable and responsible development of the Fisheries sector while ensuring socio-economic development of the fishers, fish farmers and fish workers.

3.7 The Committee having noted that total employment generation under all Schemes during the last five years has been 26,99,320 and desired to know plans of the Department to achieve the ambitious target of 55 lakh employment generation by 2024-25 under the PMMSY. The Department, in its reply, stated:-

"Since the inception of PMMSY, multiple strides have been made for providing livelihood and employment opportunities to the fishers and fisher folk community. So far a total project cost worth of Rs 11,029.34 crore have been approved for implementing various fisheries developmental activities in both inland and marine fisheries. Fisheries is a labour-intensive activity and requires skilled labour in many folds from fish culture/capture to processing and marketing. Keeping these critical aspects in mind, Dept of fisheries (GoI), NFDB along with the State fisheries departments are continuously working to meet the ambitious targets of direct and indirect employment set under PMMSY.

Department of fisheries (GoI) has been pro-active in evaluating and sanctioning big infrastructural projects such as multipurpose seaweed park, multiple fish landing centers and fishing harbours etc. that require huge amount of

manpower to take ground and become operational. Therefore, with these upcoming projects, the target of 55 lakh employment will soon be achieved."

3.8 On being asked about the details regarding the actual employment generated under Pradhan Mantri Matsya Sampada Yojana since its inception in the year 2020-21 as against the total allocation of funds done, the Department submitted:-

"The Fisheries Sector has been expected to generate a total of 33.76 lakh employment since FY 2020-21 till date under PMMSY. The actual employment generated is currently not available hence all States/ UTs vide letter no. H-11013 /3/2020-Fy dated 5th December,2022have been requested to provide the information regarding the actual employment generated under Pradhan Mantri Matsya Sampada Yojana(PMMSY) since its inception in the year 2020-21 as against the total allocation of funds done."

3.9 The Committee desired to know the actual outcomes against Physical Targets of PMMSY and the details of contribution/role of PMMSY in Employment Generation and Revenue Generation. The Department in its reply submitted the following:

"Department of Fisheries (MoFAH&D) is implementing Pradhan Mantri Matsya Sampada Yojana for a period of five years from 2020-21 to 2024-25. The scheme is in its third year of implementation and its physical targets are expected to be achieved by the end of 2024-25. The details of anticipated outcomes and actual outcomes for the financial year 2020-21 and 2021-22 are as per **Annexure-I.** "

3.10 On being asked about the details of the financial allocation State/UT wise under the various Components of Pradhan Mantri Matsya Sampada Yojana (PMMSY) since 2020-21 up to 2021-22, the Department submitted the following reply:

"State/UT-wise allocation of central share under the Centrally Sponsored Scheme (CSS) Component of PMMSY and indicative investment under the PMMSY for a period of five years (2020-21 to 2021-22) is as under:

| (Rs. In Crore) | | | |
|----------------|--------------------------------|------------------------|------------------------------------|
| SI No. | State/UT | Approved central share | Indicative investment till 2024-25 |
| (i) | (ii) | (iii) | (iv) |
| 1 | Andhra Pradesh | 301 | 782 |
| 2 | West Bengal | 243 | 629 |
| 3 | Tamil Nadu | 241 | 626 |
| 4 | Bihar | 214 | 555 |
| 5 | Odisha | 171 | 445 |
| 6 | Uttar Pradesh | 168 | 435 |
| 7 | Kerala | 149 | 387 |
| 8 | Gujarat | 139 | 363 |
| 9 | Maharashtra | 138 | 357 |
| 10 | Madhya Pradesh | 115 | 301 |
| 11 | Karnataka | 112 | 290 |
| 12 | Chhattisgarh | 85 | 222 |
| 13 | Assam | 126 | 218 |
| 14 | Telangana | 75 | 195 |
| 15 | Jharkhand | 73 | 190 |
| 16 | Goa | 53 | 136 |
| 17 | Haryana | 48 | 125 |
| 18 | Jammu & Kashmir | 58 | 90 |
| 19 | Puducherry | 58 | 87 |
| 20 | A and N Islands | 56 | 86 |
| 21 | Uttarakhand | 50 | 86 |
| 22 | Himachal Pradesh | 46 | 80 |
| 23 | Lakshadweep | 51 | 80 |
| 24 | Punjab | 29 | 75 |
| 25 | Rajasthan | 29 | 72 |
| 26 | Tripura | 41 | 72 |
| 27 | Manipur | 37 | 62 |
| 28 | Meghalaya | 32 | 55 |
| 29 | Delhi | 30 | 47 |
| 30 | Arunachal Pradesh | 26 | 45 |
| 31 | Nagaland | 21 | 35 |
| 32 | Mizoram | 15 | 26 |
| 33 | Sikkim | 13 | 21 |
| 34 | Chandigarh | 13 | 19 |
| 35 | Daman and Diu D & Nagar Haveli | 13 | 19 |
| 36 | Ladakh | 13 | 19 |
| | Total (A) | 3075 | 7331 |
| 37 | Add Central sector (B) | 688 | 688 |
| | Grand Total (A)+(B) | 3763 | 8019 |

3.11 As regards State/UT-wise details of funds utilization along with steps taken by the Department to pursue the matter with State Governments, particularly States of Bihar and Uttar Pradesh to ensure utilization of funds allocated to them., the Department, in its reply, furnished the following information:-

"From the financial year 2021-22, the Department is ensuring the compliance of (Single Nodal Agency) SNA guidelines in all the States and UTs including the State of Bihar and Uttar Pradesh for better and effective utilization of funds by beneficiaries/ Stakeholders. In addition, regular VC meeting with States/UTs along with the visits in the States to monitor the physical progress of the funds sanctioned under PMMSY is also made before fresh release of the funds.

The funds released to Various States/ UTs and their utilization under the PMMSY during the 2020-21 and 2021-22 is furnished as below:-

| (Rs. in Lakhs) | | | |
|----------------|-------------------|------------------|-----------------|
| S. No | States/UTs | Funds released | Amount Utilized |
| 1 | Andaman & Nicobar | 709.30 | 0.00 |
| 2 | Andhra Pradesh | 18659.97 | 6693.65 |
| 3 | Arunachal Pradesh | 1284.55 | 790.61 |
| 4 | Assam | 7806.62 | 4027.49 |
| 5 | Bihar | 4240.27 | 1422.67 |
| 6 | Chhattisgarh | 6903.30 | 6210.95 |
| 7 | Daman & Diu | 186.10 | 0.00 |
| 8 | Goa | 2242.59 | 73.21 |
| 9 | Gujarat | 6623.55 | 13.77 |
| 10 | Haryana | 2573.97 | 1384.84 |
| 11 | Himachal Pradesh | 1812.43 | 891.34 |
| 12 | Jammu & Kashmir | 5700.42 | 4916.64 |
| 13 | Jharkhand | 3125.71 | 667.41 |
| 14 | Karnataka | 16162.98 | 8598.48 |
| 15 | Kerala | 8610.95 | 1574.02 |
| 16 | Lakshadweep | 1442.92 | 0.00 |
| 17 | Madhya Pradesh | 7966.80 | 7560.83 |
| 18 | Maharashtra | 7700.41 | 1885.35 |
| 19 | Manipur | 1944.63 | 1801.82 |
| 20 | Meghalaya | 1556.34 | 992.59 |
| 21 | Mizoram | 2553.78 | 979.34 |
| 22 | Nagaland | 2162.74 | 1906.27 |
| 23 | NCT Delhi | 163.30 | 63.59 |
| 24 | Odisha | 11910.29 | 3174.61 |
| 25 | Puducherry | 2339.95 | 684.43 |
| 26 | Punjab | 567.84 | 0.00 |
| 27 | Rajasthan | 386.47 | 9.25 |
| 28 | Sikkim | 555.21 | 234.20 |
| 29 | Tamil Nadu | 4974.96 | 2550.00 |
| 30 | Telangana | 5213.07 | 2383.84 |
| 31 | Tripura | 2702.01 | 1042.08 |
| 32 | Uttar Pradesh | 14755.76 | 7744.70 |
| 33 | Uttarakhand | 2850.06 | 911.54 |
| 34 | West Bengal | 519.27 | 0.00 |
| 35 | Ladakh | 157.80 | 145.50 |
| | Total | 159066.32 | 71335.02 |

3.12 The Committee desired to know reasons for low utilization of funds (Rs 71335.02 out of Rs 159066.32) as well as Nil funds utilization in Andaman & Nicobar, Daman & Diu, Punjab and West Bengal under PMMSY and the steps been taken to rectify the prevailing situation. The Department, in its reply, stated:-

"An amount of Rs. 1590.66 Crore has been released under Central Sponsored Scheme component under Pradhan Mantri Matsya Sampada Yojana in the year 2020-21 and 2021-22. Out of the aforesaid funds released, an amount of Rs. 734.06 Crore has been utilized that stands at 46% of the total amount. The utilization of funds w.r.t. the funds released during 2020-21 is 74%.

Low utilization of funds during the year FY 2021-22 was due to (i) difficulty in compliance of SNA guidelines by States/UTs (ii) restrictions due to COVID-19 pandemic (iii) Non receipt of proportionate state matching share in time and (iv) late commencement of PMMSY in 2020-21 from September.

Further, Andaman and Nicobar Administration faces many challenges in grounding PMMSY activities due to its unique topology. Few requests/proposals indicated by the A&N administration have been considered and the letter containing the approval have been issued to the UT on 26th November, 2022. Remaining few issues/proposals as requested will be posed to the Central Standing Committee and Central Apex Committee for appropriate decision making. With regards to Daman and Diu, West Bengal and Punjab, action plan was not received by the Department during the year 2021-22. Meanwhile, to expedite the utilization of funds and guide the states, regular review meetings are also being conducted."

3.13 The Committee desired to know whether the reasons for under utilisation of funds by States/UTs under the PMMSY have been figured out and whether any corrective measures taken to change the process of Approval/Funds Release delinking utilisation certificate. The Department, in its reply, submitted the following:

"Underutilization of funds during the year 2021-22 has been reported due to (i) Compliance of Single Nodal Agency (SNA) guideline regarding revised procedure for release of funds to States/UTs and monitoring utilization of funds (ii) restrictions due to COVID-19 pandemic (iii) Non receipt of proportionate state matching share in time and (iv) Late Commencement of PMMSY in 2020-21 from September 2020. However, progress of the States/UTs is being reviewed time to time. Department of Fisheries have been continuously advising them on utilization of funds available with the states/UTs for the activities approved during 2022-23 that has led to increase in pace of funds utilization by the States/UTs."

3.14 When asked about the details regarding total investment done up-till now under PMMSY in both Coastal as well as Non-Coastal States, the Department furnished the following information

(Rs. in Lakhs)

| State/UT Name | TOTAL PROJECT COST |
|--|--------------------|
| Coastal | 570930 |
| Andhra Pradesh | 211931 |
| Goa | 9415 |
| Gujarat | 73729 |
| Karnataka | 73391 |
| Kerala | 38572 |
| Maharashtra | 50965 |
| Odisha | 60229 |
| Tamil Nadu | 35901 |
| West Bengal | 6607 |
| Andaman and Nicobar Islands | 2980 |
| Puducherry | 6581 |
| The Dadra and Nagar Haveli and Daman and Diu | 631 |
| Non-Coastal | 415736 |
| Arunachal Pradesh | 8976 |
| Assam | 32614 |
| Bihar | 30130 |
| Chhattisgarh | 36432 |
| Delhi | 533 |
| Haryana | 28322 |
| Himachal Pradesh | 9775 |
| Jammu and Kashmir | 8858 |
| Jharkhand | 30835 |
| Ladakh | 1457 |
| Lakshadweep | 4460 |
| Madhya Pradesh | 49703 |
| Manipur | 8347 |
| Meghalaya | 7027 |
| Mizoram | 8573 |
| Nagaland | 6831 |
| Punjab | 14194 |
| Rajasthan | 4260 |
| Sikkim | 4696 |
| Telangana | 14666 |
| Tripura | 9574 |
| Uttar Pradesh | 79173 |
| Uttarakhand | 16303 |
| Grand Total | 986667 |

3.15 On being asked by the Committee about details of funds allocation mainly Capital Expenditure made to the States/UTs under PMMSY and the Employment Generated thereby, the Department submitted the following reply:

"Under PMMSY, investment to the tune of Rs. 11029.36Crore has been made with a view to generate nearly 7,64,380 direct employment in the Fisheries sector. The details are as below:-

| Sl. No | States | Allocated 5 year Investment under PMMSY | Investment approved (till date) | Central share | Expected Direct Employment |
|--------|-------------------|---|---------------------------------|---------------|----------------------------|
| (i) | (ii) | (iii) | (iv) | | (v) |
| 1 | Andaman & Nicobar | 218 | 30 | 15 | 918 |
| 2 | Andhra Pradesh | 1955 | 2119 | 545 | 80954 |
| 3 | Arunachal Pradesh | 112 | 90 | 64 | 1542 |
| 4 | Assam | 544 | 326 | 164 | 8923 |
| 5 | Bihar | 1390 | 301 | 95 | 17418 |
| 6 | Chhattisgarh | 555 | 364 | 111 | 56322 |
| 7 | Daman & Diu | 47 | 6 | 4 | 97 |
| 8 | Delhi | 117 | 5 | 3 | 121 |
| 9 | Goa | 339 | 94 | 40 | 1823 |
| 10 | Gujarat | 908 | 737 | 222 | 50514 |
| 11 | Haryana | 313 | 283 | 90 | 9815 |
| 12 | Himachal Pradesh | 199 | 98 | 47 | 5889 |
| 13 | Jammu & Kashmir | 226 | 89 | 48 | 1597 |
| 14 | Jharkhand | 475 | 308 | 102 | 14291 |
| 15 | Karnataka | 725 | 734 | 225 | 34118 |
| 16 | Kerala | 967 | 468 | 156 | 13153 |
| 17 | Ladakh | 47 | 15 | 9 | 142 |
| 18 | Lakshadweep | 198 | 45 | 31 | 3378 |
| 19 | Madhya Pradesh | 751 | 497 | 155 | 25295 |
| 20 | Maharashtra | 892 | 510 | 191 | 39916 |
| 21 | Manipur | 156 | 83 | 41 | 3159 |
| 22 | Meghalaya | 137 | 70 | 39 | 2688 |
| 23 | Mizoram | 64 | 86 | 48 | 17430 |
| 24 | Nagaland | 88 | 68 | 39 | 3650 |
| 25 | Odisha | 1110 | 602 | 214 | 24450 |
| 26 | Puducherry | 218 | 77 | 45 | 4600 |
| 27 | Punjab | 187 | 142 | 38 | 1775 |
| 28 | Rajasthan | 182 | 43 | 15 | 1164 |
| 29 | Sikkim | 52 | 47 | 28 | 926 |
| 30 | Tamil Nadu | 1565 | 445 | 155 | 21403 |
| 31 | Telangana | 489 | 147 | 42 | 278150 |
| 32 | Tripura | 178 | 96 | 48 | 16813 |
| 33 | Uttar Pradesh | 1090 | 792 | 247 | 17388 |
| 34 | Uttarakhand | 216 | 163 | 81 | 876 |
| 35 | West Bengal | 1573 | 66 | 21 | 3686 |
| 36 | Chandigarh | 47 | 0 | 0 | 0 |
| | Sub-total | 18330 | 10046 | 3417 | 764384 |
| 37 | Central Sector | 1720 | 983 | 591 | |
| | Total | 20050 | 11029 | 4009 | |

"

3.16 Regarding the details of funds allocated under PMMSY since 2020-21 to all the Beneficiary Oriented Activities to General/SC/ST/Women categories of all States/UT and North Eastern Region, the Department submitted the following reply:

"PMMSY supports various beneficiary-oriented activities for the beneficiary different categories viz., General, SC, ST and women. Further, considering the fish production, fishers' population, State budgetary support to fisheries Sector etc., State-wise overall investment targets under PMMSY have been conveyed to the all State/UTs including NER and no separate allocation of funds is done for beneficiary-oriented activity-wise and category-wise. Various beneficiary-oriented activities to different categories such as General, SC, ST and women in all States/UT and North Eastern are sanctioned based on the viable projects received from the States/UTs and accordingly category-wise funds for the various activities are sanctioned. Since inception of PMMSY, beneficiary-oriented activities with total outlay of Rs. 10223.45 crore have been sanctioned in all States/UTs to the beneficiaries including Rs.6764.71crore, Rs1015.68 crore, Rs.790.49croreand Rs.1652.55 crore for beneficiaries from General, SC, ST and women respectively. In so far as NER is concerned, beneficiary oriented activities with total outlay of Rs. 852.00 crore have been sanctioned including Rs. 219.62 crore , Rs.91.45crore, Rs. 387.83 crore and Rs153.09 crore for beneficiaries from General, SC, ST and women respectively."

C. Employment Generation in Fisheries Sector

3.17 Fisheries Sector is the source of livelihood for a large section of economically backward population of the Country, especially in the coastal areas. It is also a foreign exchange earner. The task of estimating employment in fisheries and aquaculture is complex, due to the extensive number of pre-harvest, harvest and post-harvest activities associated with this sector. Jobs range from the production and sale of inputs (vessels, fishing gear, bait, etc.) to farming and harvesting, processing, marketing and distribution of fish. Fishing and aquaculture operations can be informal and small-scale as well as highly organized and industrial in nature.

3.18 According to Department of Fisheries, quantifying the employment potential of the fisheries sector is a complex task as fish is a natural resource and its availability, demand and price realization is highly dependent on multiple compounding factors such as environment market dynamics, climate change (which results in shifts of the distribution range of marine species), changes in productivity, etc. Moreover, employment in the fisheries sector also depends upon whether there is regulated open

access or quota-based regime or a fusion of both. Notwithstanding the above factors, Fisheries Sector offers vibrant employment opportunities in large scale integrated projects, fishing harbours, fish landing centres, off shore fishing activities, mariculture including open sea cage culture and seaweed cultivation, fish feed plants, cold chains/ refrigerated warehouses/ice plants, processing units, fish markets, commercial units of re-circulatory aquaculture system, etc. Further, employment potential exists in the development and creation of quality seed and feed mills, technology incubation and infusion centers, hatcheries and germ-plasm centers, quarantine facilities, aqua parks and Fish Farmer Producer Organizations (FFPOs)

3.19 The Committee desired to know the details of estimated level of employment generation by Fisheries Sector in the country on the basis of GVA contribution by this Sector and the relation between these two factors. The Department of Fisheries, in this regard furnished the following information:-

"The Fisheries sector plays an important role in the national economy and the share of Fisheries sector in the total Gross Value Added (GVA) at Current Basic Prices, in 2021-2022, is projected at Rs. 2,64,484 Crore that constitutes about 1.24 Percent of the total national GVA. Resultantly, Employment generated in the Fisheries Sector in India from 2020-21 to 2022-23 are as under:

| S. No. | Year | Employment Generated |
|---------------|-------------|-----------------------------|
| i | 2020-21 | 687522 |
| ii | 2021-22 | 218491 |
| iii | 2022-23 | 221811 |
| Total | | 1127824 |

The GVA (Gross Value Added) proportionately increases or decreases the employment."

3.20 The Committee desired to know details of the total employment generated through Fisheries Sector (both capture and culture fisheries) in various direct and indirect fishing related activities and also details of data comparing Marine and Inland Fisheries. The Department in its reply furnished the following information:-

"The details of State wise employment estimated to be generated through Fisheries Sector (both capture and culture fisheries) in various direct and indirect fishing related activities for the last five years are furnished below:

| Sl. No | Component Head | Employment Generated in the last 5 years (Including Current year) | | |
|--|---|--|---------------------------------|--------------------------------------|
| | | Direct employment opportunity | Indirect Employment opportunity | Total Estimated Employment Generated |
| A. Pradhan Mantri Matsya Sampada Yojana (PMMSY) | | | | |
| 1 | Grow Out Aquaculture and Production Related components | 174441 | 523323 | 697764 |
| 2 | Pre-harvest Services | 697311 | 2084430 | 2781741 |
| 3 | Post harvest Infrastructure and Marketing | 41048 | 123144 | 164192 |
| 4 | Ornamental Fisheries | 3250 | 9750 | 13000 |
| 5 | Deep Sea Fisheries and MCS | 50697 | 152091 | 202788 |
| | Total | 966747 | 2892738 | 3859485 |
| B. Fisheries Infrastructure Development Fund (FIDF) | | | | |
| 1 | Fishing Harbours Fish Landing Centres | 46032 | 138096 | 184128 |
| 2 | Cold Chain Facilities and Marketing | 244 | 732 | 976 |
| 3 | Aquaculture and support services | 475 | 1425 | 1900 |
| 4 | Fish Processing Units | 725 | 2175 | 2900 |
| | Total | 47476 | 142428 | 189904 |
| C. Blue Revolution | | | | |
| 1 | Grow-out/ Actual Aquaculture | 265655 | 796965 | 1062620 |
| 2 | Support Services (Pre-harvest operations) | 39154 | 117462 | 156616 |
| 3 | Post-Harvest Infrastructure – cold chain for fisheries including marketing facilities | 22563 | 67689 | 90252 |
| 4 | Fisheries Infrastructure projects | 36050 | 108150 | 144200 |
| | Total | 363422 | 1090266 | 1453688 |
| Grand Total (A + B + C) | | 1377645 | 4125432 | 5503077 |

A comparison of the employment generated in the Inland as well as Marine sector during the last five years is furnished below:

| SL. No | Scheme | Inland Sector | Marine Sector |
|--------|--------------|----------------|---------------|
| 1 | PMMSY | 1704424 | 467033 |
| 2 | FIDF | 1900 | 185104 |
| 3 | BR | 167959 | 172900 |
| | Total | 1874283 | 825037 |

3.21 The Committee desired to know the comparative data with respect to the employment generated (direct/indirect) through Inland and Marine Fisheries, the Department in its reply stated:-

"Under PMMSY, since FY 2020-21 till date, creation of 9.7 lakh direct employment has been estimated along with the indirect employment of 29.1

lakh. The afore said bifurcation of the data is not maintained at the Department of Fisheries hence all States/ UTs vide letter no.J-1203135/22/2020-Fy dated 25th November 2022 have been requested to provide the information regarding the contribution of Marine and Inland fisheries separately in Employment Generation and Revenue Earnings for each of the last five years through Fisheries Sector. Further, the comparative data stating the employment generated (direct/indirect) through Inland and Marine Fisheries separately for each of last five years has also been requested from States/UTs at the earliest."

D. Revenue Earning Potential in Fisheries Sector

3.22 Fisheries Sector has emerged as a sunrise sector and has been an important sector that provides food, nutrition, employment, income and livelihood in India. Transformation of the Fisheries sector from traditional to commercial scale has led to an increase in fish production from 0.75MMT in 1950-51 to 16.25 MMT during 2020. *(Last Sub-para of Para-2,2 of AR 2022-23)* Fish and fisheries products are among the most traded food commodities in the World. (Para-5.1 of AR-2022-23).

3.23 According to Department of Fisheries, States will develop comprehensive leasing and licensing policy for all public water bodies by balancing competing objectives of resource development, livelihoods, welfare and revenue generation, etc. , with due priority to local fishing communities and their cooperatives, fisheries professionals / trained entrepreneurs while respective agencies may continue to retain trusteeship / custodial rights of these resources. The minimum lease period in the range of 7-10 years with periodic review and the minimum lease value will be determined on scientific principles, equity and long-term sustainable resource utilization. A part of revenue obtained will be mandatorily used for development of fisheries in that entity.

3.24 On being asked about the measures undertaken/envisaged by the Department to boost the Revenue Earning potential of Fisheries Sector and whether the Department identified any specific areas to focus on so as to enhance the revenue generation through fisheries, the Department stated:-

"While the state wise details regarding revenue generation through fisheries for the last five years is being collected, the Department has taken various steps to boost the Revenue Earning potential Fisheries Sector. Region specific strategies

and initiatives entail increasing fish production and productivity through initiatives such as establishment of hatcheries, Construction of rearing and grow-out ponds, Re-circulatory Aquaculture Systems, Biofloc, cage culture, pen culture etc along with reduction in post-harvest losses through initiatives such as establishment of cold chain, logistics and transport support, expansion of markets etc. The above activities are supplemented by disease management and risk reduction through establishment of disease diagnostic and quality testing labs and mobile labs/clinics and availability of economical and accessible credit through Kisan Credit card and boosting export earnings. Further, initiatives undertaken under key focus areas of establishment of artificial reef, sea ranching and stocking of rivers and reservoirs in inland fisheries are expected to stabilise incomes for small fishermen and marginalised communities.

Further the expected output value for States/UTs in 5 years (2024-25) are increasing fish production to 22 MMT, domestic fish consumption to 12 kg/capita, productivity to 5 tonnes/Ha, employment generation of 55 lakhs while doubling export earning to Rs 1 lakh Crore and reducing post-harvest losses to 10%."

3.25 The Committee desired to know the contribution of Fisheries Sector in the overall Revenue Earnings during the years 2020-22 and the reasons for the drastic decrease in the employment generated in the year 2021-22 as compared to 2020-21. The Department in its reply submitted:-

"With the fish production reaching 16.2 MMT (FY 21-22) and the marine exports reaching an all-time high of Rs 57,586.48 Crore, the fisheries sector contributes to 1.29% of the overall Gross Value Added (GVA) during 2020-21. The sector has been key in stimulating growth for both of fisheries and allied sectors directly and indirectly contributing to the National GVA.

Fisheries sector occupies an important place in the socio-economic development of the country as it provides livelihood for a large section of economically backward population of the country. Under PMMSY, since FY 2020-21 till date, creation of 99.7 lakh direct employment has been estimated along with the indirect employment of 29.1 lakh.

The decrease in livelihood indicates that the sector is moving towards maturity for accomplishing big budget-long term-impactful projects. It must be highlighted that due to COVID restrictions, in FY 2020-21 the scheme sanctions revolved around smaller activities while as the restrictions were relaxed bigger and long-term projects such as construction of ponds, hatcheries etc were approved that reduced pace of livelihood generation but ensures sustainable development of the sector"

3.26 Doubling Fishers and Fish Farmers incomes has been one of the objectives of Pradhan Mantri Matsya Sampada Yojana (PMMSY), the Committee desired to know details regarding the contribution of the Scheme in doubling of farmer's income since its inception in the year 2020-21. The Department submitted the following reply:

"Since the inception of Pradhan Mantri Matsya Sampada (PMMSY), multiple strides have been made for providing livelihood and employment opportunities to the fish folk community. Such efforts are being made for overall enhancement in income levels so as to create an impact and meeting one of the primary objectives of PMMSY of 'doubling farmers' income'.

- (i) It is estimated that the sector-wise activities and projects approved since inception (till date) is expected to create about 9.70 lakh direct employment and over 29.10 lakh indirect employment through uptake of fisheries activities.
- (ii) In line with the above, PMMSY offers subsidy on more than 100 components for the benefit of the fishers and fish farmers. So far, a total investment of Rs. 2646.98crore has been done in the inland fisheries for sanctioning 14,253 ha of pond area, 2,766 Bio-floc, 4997 RAS (Re-circulatory Aquaculture System), 21,284 cages, 509 fish hatcheries, 4 scampi hatcheries, 12 brood banks. While in the marine sector, 376 deep sea fishing vessel, 4,250 Bio-toilets in mechanized fishing vessels, 1,556 sea cages, 5 small marine finfish hatcheries and 5 large marine finfish hatcheries, 1,325 ha of pond area brought under brackish water aquaculture, and 13 brackish water hatcheries have been approved as per the proposals received under PMMSY for beneficiary and non-beneficiary oriented components.
- (iii) Important and large-scale activities approved such as 2489 Sagar Mitras, 3 wholesale markets, 22 integrated development of reservoirs, 12 integrated modern fish landing centres, Integrated Modern Coastal Fishing Villages, 1 Integrated Aquapark have opened new employment avenues hence increased employment and benefitting the fisher folk community through regular and increased income levels. As a result, fisheries sector's contribution to the National GVA has almost doubled. Fisheries sector contribution to the agriculture GVA and national GVA was 4.5% and 0.84%, respectively in 2011-12 that has increased to 6.7% and 1.09%, respectively in 2020-21."

3.27 The Committee desired to know the State/UT wise information regarding the contribution of Marine and Inland fisheries in Employment Generation and Revenue Earnings as on March 2022. The Department, in its reply, stated:-

"The fisheries sector has been expected to generate a total of 33.76 lakh employments since financial year 2020-21 till date under Pradhan Mantri Matsya Sampada Yojana (PMMSY). The employment generation for Marine and Inland fisheries are not available hence the states/UTs have been requested for the data vide letter no. J-1203135/22/2020-Fy dated 25th November 2022."

E. Kisan Credit Card & Insurance Coverage

3.28 The Government of India extended the facility of Kisan Credit Card (KCC) to fisheries in 2018-19 and animal husbandry farmers to help them meet their working capital needs. The KCC facility is helping the fisheries and animal husbandry farmers to meet their short-term credit requirements for rearing animals, poultry birds, fish, shrimp and other aquatic animals. *(Extracts of Para 3.3 of AR 2021-22)* The State/UT wise details of people getting livelihood & employment from the Inland & Marine Fisheries Sector, as furnished by the Department of Fisheries, are at **Annexure I** and **II** respectively. At present, 1.66 lakh fishers and fish farmers have been provided KCC facility and details of the same are at Annexure **III**."

3.29 When asked by the Committee about the measures taken by the Department to provide Institutional Finance to Fishers, Fish Farmers and also facilitate the penetration of Kisan Credit Card within the Fishing Community and the status of the development of Digital Portal by the Department along with SIDBI to enhance the issuance/coverage of KCC amongst Fishermen, the Department submitted the following:-

"The various measures taken by Department of Fisheries to provide institutional finance to fishers, fish farmers and also to facilitate the penetration of Kisan Credit Card (KCC) within the fisher communities are as below:

- (a) Department of Fisheries (MoFAH&D) along with all the States /UTs and State Level Bankers Committee (SLBC) have been working to sensitize and disseminate information amongst the fishers and fish farmers about KCC through special camps and other modes of communications.
- (b) Subsequently, the Hon'ble Finance Minister announced Rs. 2 lakh Crore concessional credit boost to Rs. 2.5 Crore farmers including fishers & fish farmers under Kisan Credit Card (KCC) Scheme as a part of *Aatmanirbhar Bharat* package. Thus, Department of Fisheries (MoFAH&D) in collaboration with all the States/UTs took up a special drive from 10th June to 10th October, 2020 in order to saturate the issuance of KCC to fishers and fish farmers.

- (c) Followed by this, a "Nationwide Fishery KCC campaign" was launched on 15th November 2021 by Hon'ble Minister of Fisheries, MoFAH&D to ensure complete stakeholder coverage. The campaign period was from 15th November 2021 to 31st July 2022.
- (d) Department of Fisheries (MoFAH&D) is continuously working with States/UTs to ensure (i) sourcing of the applications of fishers and fish farmers along with all relevant documents, (ii) to put in place the Scale of Finance (SoF) for deciding the working capital limit for fisheries related activities.
- (e) "Nationwide Fishery KCC" Campaign being held from 15th September 2022 and continue till 15th March 2023. This time the KCC Camps will be held at Panchayat Level also to provide the KCC benefits to all the eligible beneficiaries.
- (f) Modification of RBI circulars for the benefit of Fish farmers.
- (g) Visiting Sample Campaigns/SLBC Meetings under "Nationwide Fishery KCC" Campaign.
- (h) Mass Awareness initiatives through Social Media platform.

Department of Fisheries (MoFAH&D) had initiated the work of a Digital Portal along with SIDBI. However, the Nodal Ministry of Agriculture & Farmers Welfare, Govt of India has informed that a combined Digital Portal has been developed to track and monitor the KCC applications and to track the payment of interest subvention and that it is in the final stage. The same will be utilized by this Department for monitoring the progress of KCC."

3.30 The matter relating to Concession Credit under the Kisan Credit Card (KCC) was raised by Committee during their sitting held on 22.11.2023 for taking oral evidence of the representatives of the Department of Fisheries on the subject 'Employment Generation and Revenue Earning Potential of Fisheries Sector'. In this regard, Secretary, Department of Fisheries, while responding to queries of the Committee stated as under :

"KCC right now is given at seven Percent and there is a three Percent interest subvention in terms of repayment. Some States are giving another 4 Percent making the rate of interest zero. We have written to other States also whether they can follow this so that it can be interest free loan that can be repaid promptly within time."

3.31 The Committee desired to know the State/UT-wise and year-wise financial and physical targets and achievements in respect of the KCC since 2018-19, till 2021-22 and also the reasons for pendency of applications with banks for issuance of Kisan Credit Cards to Fishers. The Department in its reply submitted the following:

"For the first time, separate Working capital requirements and term loan targets have been given by the Department of Financial Services, earlier it was a combined target for agri & allied sector. The details are given below:

(Rs in Crore)

| S.N. | Activity | Working Capital | Term Loan | Total |
|--------------|---|-----------------|---------------|-----------------|
| 1 | Dairy | 21,546 | 50,274 | 71,820 |
| 2 | Poultry | 5,670 | 13,230 | 18,900 |
| 3 | Sheep Goat, Piggery & Animal Husbandry-others | 4,158 | 9,702 | 13,860 |
| 4 | Fisheries | 6,426 | 14,994 | 21,420 |
| Total | | 37,800 | 88,200 | 1,26,000 |

(i) The state-wise targets achieved against under the scheme along with the number of pending applications are as below:

| Status of Progress of Issuance of KCC for Fisheries Sector as on 28.10.2022 | | | |
|--|---------------------------|------------------------|---------|
| S.N. | State Name | Number of Applications | |
| | | Sanctioned | Pending |
| 1 | Andaman & Nicobar Islands | 3,906 | - |
| 2 | Andhra Pradesh | 11,570 | - |
| 3 | Arunachal Pradesh | 11 | |
| 4 | Assam | 4,291 | 264 |
| 5 | Bihar | 625 | 106 |
| 6 | Chandigarh | - | - |
| 7 | Chhattisgarh | 1,217 | 206 |
| 8 | Dadra And Nagar Haveli | 2 | - |

| Status of Progress of Issuance of KCC for Fisheries Sector as on 28.10.2022 | | | |
|--|-------------------|-------------------------------|----------------|
| S.N. | State Name | Number of Applications | |
| | | Sanctioned | Pending |
| 9 | Daman And Diu | 308 | - |
| 10 | Delhi | - | - |
| 11 | Goa | 376 | - |
| 12 | Gujarat | 9,748 | 104 |
| 13 | Haryana | 127 | 33 |
| 14 | Himachal Pradesh | 669 | 7 |
| 15 | Jammu And Kashmir | 756 | 12 |
| 16 | Jharkhand | 2,074 | 42 |
| 17 | Karnataka | 5,178 | 1,465 |
| 18 | Kerala | 4,993 | 15 |
| 19 | Ladakh | 130 | - |
| 20 | Lakshadweep | 12 | - |
| 21 | Madhya Pradesh | 15,941 | 2,703 |
| 22 | Maharashtra | 8,410 | 171 |
| 23 | Manipur | 205 | 2 |
| 24 | Meghalaya | 161 | - |
| 25 | Mizoram | 41 | - |
| 26 | Nagaland | 5 | - |
| 27 | Odisha | 1,189 | 89 |
| 28 | Puducherry Ut | 599 | - |
| 29 | Punjab | 190 | 9 |
| 30 | Rajasthan | 2,515 | 4 |
| 31 | Sikkim | 45 | - |
| 32 | Tamil Nadu | 8,701 | 171 |
| 33 | Telangana | 4,024 | 2 |
| 34 | Tripura | 10,770 | 24 |
| 35 | Uttar Pradesh | 7,842 | 390 |
| 36 | Uttarakhand | 330 | 195 |
| 37 | West Bengal | 6,115 | 45 |
| | Total | 1,13,076 | 6,059 |
| Source : Department of Financial Services | | | |

- (ii) The main reasons for pendency of the KCC applications are listed below:
- Applicant has already having KCC/Availed loan/Applicant in default (NPA)
 - Application received for fish vending & marketing are not included as a listed activity under KCC
 - Applicant not traceable/unwilling to avail KCC
 - Applicant unaware about the submission of application in his/her name
 - Wrong/ incomplete information furnished"

PART – II

OBSERVATIONS/RECOMMENDATIONS

Action Plan for Utilization of Available Resources in Fisheries Sector

1. The Committee note that Marine Resources of the country comprise an Exclusive Economic Zone (EEZ) of 2.02 Million Sq. Kms, a Continental Shelf area of 0.53 Million Sq. Kms and a Coastline of 8,118 Kms. The inland resources comprise of 0.27 Million Kms of rivers and canals, 1.2 million ha floodplain lakes, 2.45 Million Ha of Ponds and Tanks and 3.15 Million Ha of Reservoirs. Inland Fisheries presently have a share of 75 Percent in total Fish Production of the country. In 2018, total fisheries potential of India was estimated at 22.31 MMT consisting of the Marine Fisheries potential at 5.31 MMT and the Inland Fisheries potential at 17 MMT. During 2021-22, 77 Percent of Marine Fisheries potential and 71 Percent of the Inland Fisheries potential have been harnessed. During the financial year 2022-23, out of the estimated total Fish Production of 16.24 Million Metric Tonnes (MMT) the contribution of Inland sector was 12.12 MMT and that of marine sector was 4.13 MMT. The full potential of the Fisheries Sector is yet to be realized due to critical gaps in production inputs, investment, infrastructure, value addition, technological know-how and skilled manpower. The Committee therefore, recommend that the Government should prepare an action plan for optimal utilization of its Inland and Marine resources especially Deep-sea fishing Resources in a time bound manner. The Committee feel that New Scheme Components may be formulated under the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) and the Prime Minister Matsya Sampada Yojana (PMMSY) for the purpose. The Committee would like a to be apprised of the action taken in this regard.

Conservation Measures for Sustainable Production in Fisheries Sector

2. The Committee note that Fisheries is a fast-growing Sector in India, which provides nutrition and food security to a large population of the country besides providing livelihood, income and employment to more than 2.80 Crore people. However, the Fisheries Sector has the risk of losing its sustainable production in the long run unless necessary conservation measures are taken. Factors such as Overfishing, Harmful fishing practices, Pollution, Disease outbreak, Destruction of habitat, Climate change, etc. would adversely affect the Fisheries Resources of the country. Conservation and Resource enhancement measures are essential to ensure aquatic bio-diversity and sustainability in Fisheries Sector. Against this backdrop, the Committee appreciate that the Government has banned Bull-trawling and use of Artificial Lights / LED Light for fishing. The Committee, therefore, recommend that the Department needs to taken proactive conservation measures to protect sustainability of fishery resources and Fisheries Sector of the country. The Committee, in particular, desire that breeding and propagation of all important fish species of the country be ensured by suitably developing hatchery infrastructure of Fisheries Sector of the country. The Committee would like to be apprised of the action in the matter.

Development of Artificial Reefs

3. The Committee note that the Department of Fisheries has formulated a plan for inclusion of “Promotion of sustainable fisheries and livelihoods through Artificial Reefs and Sea Ranching” as a sub activity under the “Integrated Modern Coastal Fishing Villages” (IMCFV) to rebuild fish stocks and promote sustainability in inshore/coastal fisheries and protect the livelihood of dependent fisher folks. However, it is observed that only from the States of Tamil Nadu and

Odisha, Detailed Project Report (DPR) has been received for setting up of Artificial Reefs in the fishing villages, which are selected for proposed development of Artificial Reefs under PMMSY. The Committee therefore recommend that the Department should take necessary measures and see that proposals are received from all the States for development of Artificial Reefs.

Rural Fishers and Preservation of Indigenous Breeds

4. The Committee understand that the Indigenous Breeds of fishes form a major component for providing nutrition to the Rural Fishers and the preservation of such Indigenous Breeds is very important for the economic and nutritional well being of the Rural Fishers. The Committee appreciate that for conserving Indigenous Breeds the Department of Fisheries encourages River Ranching under Pradhan Mantri Matsya Sampada Yojana. However, the Committee have been informed that the commercial breeding, propagation and culture expansion of the fish species like Magur, Singhi, Pabda and Koi which have medicinal properties has been low due lack of adequate Hatchery Infrastructure and therefore recommend that the Department should strive towards establishing necessary Hatchery Infrastructure required for all important indigenous species of the country.

Promotion of Deep-sea Fishing towards Optimal Utilization of Resources

5. The Committee note that the country has an estimated harvestable marine fisheries potential of 5.31 Million Metric Tonnes (MMT) which include the Deep-sea resources of 3.30 MMT in its Exclusive Economic Zone. The Deep-sea Resources have further harvestable potential in the Areas Beyond National Jurisdiction (ABNJ). The Committee while appreciating the efforts of the Government to promote Deep-sea fishing through different Scheme components

of the Central Sector Scheme on Blue Revolution and the Pradhan Mantri Matsya Sampada Yojana, hold the view that the Department should strive hard to fully utilize the Deep-sea resources of the country. Proper utilization of available resources besides generating additional employment opportunities would also bring proportionate revenues for the States. The Committee also appreciate the efforts taken by the Department in modernising the Deep Sea Fishing Vessels and providing on board training to traditional fishermen for enhancing their skills and capabilities and modernising of Fishing Harbors and recommend that the Department should strive harder to see that these initiatives bear fruit in a target oriented and time bound manner so that large deep sea long liners equipped with adequate carrying capacity and On-board Post Harvest Handling Facilities are commissioned to harness the deep sea resources of the Country to the fullest.

Need for a Separate Research Council for Fisheries Sector

6. The Committee are happy to note that India has rich and diverse fisheries resources ranging from deep seas to lakes, ponds, rivers and more than 10 Percent of the global biodiversity in terms of fish and shellfish species. Acknowledging the potential of Fisheries Sector of the country, the Government of India created a separate Department of Fisheries in February, 2019 to supplement the efforts of States and Union Territories and to provide sustained and focussed attention towards development of Fisheries Sector of the country. The Fisheries Sector contributes around 6.72% to Agriculture Gross Value Added (GVA) and 1.24 to National GVA in 2021-22 and is a major employment generator in direct as well as allied fishery activities. The Fisheries Sector of the country possesses a huge untapped potential. At present, the national level

research activities in Fisheries Sector are undertaken under the aegis of Indian Council of Agricultural Research (ICAR). The Committee, taking into account the these factors, recommend that a separate Research Council for Fishery Sector namely Indian Council for Fishery and Aquaculture Research under the Department of Fisheries be constituted as it would not only facilitate focussed and in-depth research in the Sector but also address the challenges faced by the Sector.

Fish Meal Fish Oil Industries (FMFO)

7. The Committee understand that sustainable fishing is imperative to the preservation of fish stocks and the survival of marine ecology and therefore for sustainable development of marine fisheries efforts should be taken to control the harvesting of juvenile fishes, which is also one of the reasons for the decline of many Fish Species including the Indian Oil Sardine and edible fishes. The Committee have been informed that the juvenile fish losses mainly occur when they are caught as Non-targeted Species in Trawls. The Committee understand that the practices such as Bull trawling and LED Fishing used by FMFO Industries are a major cause for such juvenile fish losses. The Committee therefore recommend that the Minimum Legal Mesh Size regulation as declared by the States like Kerala, Karnataka, Maharashtra, Gujarat and Goa to avoid juvenile and small fishes catch in Trawls also needs be implemented by other States and the Department should take active steps in pursuing all States/UTs to implements such regulations. Further, the Department should devise a foolproof mechanism in coordination with the States/UTs to stop the use of destructive and banned fishing practices like Bull Trawling and LED Fishing.

Insurance Scheme for Dam Fishers

8. The Committee note that the Department of Fisheries, through National Fisheries Development Board (NFDB) is implementing Group Accident Insurance Scheme (GAIS) for Fishers under the Pradhan Mantri Matsya Sampada Yojana since 26.07.2021. Fishers involved in fishing at reservoirs/dams are also eligible to insure their lives against heavy rainfall/ natural disaster under this Scheme through the respective State fisheries Departments/Union Territories. With regard to Dam Fishers, the Committee have been apprised that during heavy rainfall when the gates of the Dams are opened, the seeds planted by the Fishers in these Dams also gets washed away causing heavy losses to them and therefore recommend that the Department should design a Scheme for Dam Fishers, similar to crop insurance given under Pradhan Mantri Fasal Bima Yojana to extend them insurance coverage against losses during heavy rainfall. The Committee would like to be apprised of the action taken in this regard.

Cage Culture in Reservoirs

9. The Committee have been informed that there are about 5701 large dams in the country and many medium and small reservoirs with coverage of about 32 Lakh Hectares. These reservoirs which are also called as 'sleeping giants' if harnessed properly have the capacity to enhance the fish production capacity of the country manifold. The Committee therefore recommend that the Department should take concrete steps to promote Cage Culture in these reservoirs so as to increase the Fish production capacity of the Country.

Promotion of Fish Production and Consumption

10. The Committee have been informed that India is the Third Largest Fish Producing Country in the world and accounts for 7.96 Percent of the Global Production. The total Fish Production during FY 2022-23 was estimated at 16.25 Million Metric Tonnes (MMT) with a contribution of 12.12 MMT from Inland sector and 4.13 MMT from Marine sector. The Fisheries Sector of India has shown an impressive growth rate of 9.03% (Constant Price 2011-12) during 2015-16 to 2020-21. The share of Fisheries Sector in the total Gross Value Added (GVA) was 0.84% in 2011-12 and the same increased to 1.09% in 2020-21. The Per capita Fish Consumption in India was 5 to 6 Kg as compared to 24 Kg in Japan. The Committee also take note that world-wide, the trade in frozen-fish constitutes 80% of trade in fish & fish-products, whereas it negligible in India. Further, the Department has undertaken a study through National Council of Applied Economic Research (NCAER) to find out the State-wise and major species-wise demand supply gap in the country so as to formulate region specific strategies to increase market infrastructure, supply and consumption. Fish is a cheap source of protein and also possesses certain medicinal value and in addition it also has necessary potential for food-security for the country. Taking into account the aforesaid factors, the Committee recommend that the Department shall expeditiously find out the demand and supply gap in Fish and Fish-products in the country and take appropriate measures to promote fish consumption and production of fish and fish-products including frozen-fish in the country. The Committee would like to be informed of the action taken in this regard.

Promotion of New Technologies in Fish Production

11. The Committee note that at present the contribution of Freshwater Fisheries and Marine Fisheries in India's Fish Production is about 75% : 25% respectively and the total fish production during FY 2022-23 was estimated at 16.25 MMT. Adoption of new and innovative production technologies, management and utilization of underutilized water bodies, and deployment of effective marketing strategies are very essential to achieve the targeted increase in fish-production. The Government is implementing the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and the Scheme of Fisheries and Aquaculture Development Fund (FIDF) to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure, strengthening of value chain, enhancement of fisheries export, establishment of robust fisheries management framework, fishers' welfare, etc. Under the Pradhan Mantri Matsya Sampada Yojana, a target to increase fish production to 22 MMT by the year 2025 has been set. The Committee also taken note that Biofloc Technology (BFT) is one of the highly productive, environment friendly aquaculture techniques which reduces water use, land use, spread of disease, and also reduces the pressure on capture fisheries. The Committee therefore recommend that the Department should review the progress in the implementation of PMMSY and take further necessary steps to increase production through popularization of new innovative technologies including like Biofloc Technology in the Fisheries Sector of the country.

Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

12. The Committee have been informed that certain Activities/Projects undertaken under Fisheries and Aquaculture Infrastructure Development Fund

(FIDF) such as Aquaculture, Fishing Harbours, Fish Landing Centres, Cold Storages, pre-harvest services and post harvest Infrastructure are labour intensive activities and in turn generate a lot of direct and indirect employment opportunities. The Committee have also been informed that the sanction rate under FIDF is low since most of the Projects that have been approved are Big Projects and further the participation of private sector in FIDF Scheme is less because only interest subvention was provided to them. The Committee acknowledges that FIDF is a demand driven Scheme, however, at the same time, The Committee also understand that the Projects that are been funded under FIDF play a vital role in generating employment, be it direct or indirect. The Committee therefore, recommend that the Department should take effective measures so as to encourage participation of private players from all the States/UTs in the FIDF Scheme in setting up of Projects, which would, in turn, boost both the employment and revenue generation. The Department, therefore, should also take measures to ease out the process of sanctioning approval to such Projects.

Post-Harvest Infrastructure Development in Fisheries Sector

13. The Committee note that currently the Post-Harvest Losses (PHL) in Fisheries Sector are reported to be 20-25% and one of the Objectives of the Pradhan Mantri Matsya Sampada Yojana (PMMSY) is to bring down these losses to 10% by the year 2024-25. However, the Department has not undertaken any comprehensive study in the last five years to assess the Percentage of PHL in Fisheries Sector and therefore the Committee recommend that the Department should undertake a comprehensive study to compute these losses and find ways

to decrease these losses by strengthening the infrastructure of Fishing Harbors and Fish Landing Centres and also by modernising them.

Import in Fisheries Sector

14. The Committee have been informed that there are certain fish varieties such as Haddock, Cod, Flat-Fish, Salmon, Pallock, Argentinean Red Shrimp, Norway Lobster which are found only in Temperate countries and certain varieties are being imported for supply to Hotel, Restaurants and Cafes and as such imports of these Fish varieties cannot be avoided. The Committee have also been informed that L. Vannamei Shrimp constitutes almost 90 to 95 percent of our exports, however, the Mother Stock of L. Vannamei Shrimp is imported. In this regard, the Committee recommend that urgent necessary action be taken to produce MOther Stock of L. Vannamei Shrimp in the Country thereby reducing the import dependency. The Committee further note that to reduce this single species dependency on L. Vannamei and species diversification two options are available i.e. P. Modonon and P. Indicus and accordingly recommend that the Department should make sure that the Genetic improvement Program by the Central Institute of Brackish water Aquaculture (CIBA) for development of P. Indicus (an indigenous Shrimp) and the Nucleus Breeding Centre (NBC) Project of Marine Products Export Development Authority (MPEDA) located at Andaman and Nicobar Islands for development of P. Monodon are fast tracked and completed in a time bound manner so that the Country moves up the ladder in achieving self-sufficiency by reducing import of Shrimp Brood Stocks and thereby living true to the sprit of the Atma Nirbhar Bharat.

Exports in Fisheries Sector

15. The Committee understand that to achieve the export target set under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) that is to double the export earnings to Rs. 1 lakh Crores by the year 2024-25, interventions in areas such as Shrimp productivity, post harvest infrastructure, improving certification and traceability and awareness of quality products are required. The Committee appreciates the efforts taken by the Department for diversification of aquaculture species and Tilapia Fish in particular so as to increase its export by funding Tilapia Hatcheries and Tilapia Culture through Recirculation Aquaculture System (RAS), Cage culture and Pond Culture. Further, MPEDA- Rajiv Gandhi Centre for Aquaculture has also standardised the Hatchery and grow out farming technology of Genetically Improved Farmed Tilapia (GIFT). In this regard, the Committee recommend that similar efforts and technological hand holding should be accorded to other Inland Fresh Water commercially important Fish varieties such as Rohu, Catla, Magur, Vaam and Hilsa so that they contribute in achieving the targets set under the PMMSY. The Committee note that Disease Management and Certification and Traceability are very important areas where intervention is needed so as to increase the export competitiveness of the Fisheries Sector and thus, a mechanism should be put in place which would make the Fish Farmers aware of the contents of the Aquaculture Inputs such as production booster used by them. The Committee also recommend that the issues pertaining to Sanitary and Phyto-sanitary (SPS) and Technical Barrier to Trade (TBT), which are hampering the exports to various countries need be addressed in a concrete manner and the Department should strive hard to overcome these issues.

Kisan Credit Card

16. The Committee note that the Kisan Credit Card (KCC) facility was extended to Fisheries and Animal Husbandry Farmers in 2018-19 to help them meet their Working Capital needs. The Rate of Interest on the Loans under KCC is presently 7% and 3% subvention is given by the Central Government in case of timely repayment by the Farmers. However, some States are also giving another 4% Subvention/Rebate from their own account to make the real rate of interest to Zero for the Farmers. The Committee appreciate that separate Working Capital and Term Loan Targets for KCC have been accorded to the Fisheries Sector by the Department of Financial Services so as to improve the credit flow into the Sector. The Committee further note that a large number of applications from Fishers Sector for KCC remain pending in many States/UTs. The Committee, therefore, recommend that KCC be issued to all eligible persons without delay. The Committee also recommend that the Department should coordinate with all the States/UTs so as to explore the possibility of providing Interest Free Loans to Farmers under KCC as has been done by some States by extending another 4 Percent of Interest Subvention/Rebate over and above the 3 Percent available, so that the interest rate under KCC becomes zero.

Revenue Earning Potential of Fisheries Sector

17. The Committee note that Inland Fisheries Sector is by and large, fully in the domain of State Governments, while Marine Sector is a shared responsibility between the Central and Coastal State Governments. According to Department of Fisheries, States will develop comprehensive Leasing and Licensing Policy for all Public Water Bodies by balancing competing objectives of resource development, livelihoods, welfare and revenue generation, etc. , with due priority

to local fishing communities and other stakeholders while respective agencies may continue to retain trusteeship/custodial rights of these resources. The State wise details regarding revenue generation through fisheries are not readily available. However, the Government has taken various steps to boost the Revenue Earning potential of the Fisheries Sector through steps taken for increasing fish production and productivity, reduction in post-harvest losses, disease management and risk reduction, establishment of artificial reefs, river/sea ranching and stocking of rivers and reservoirs. The Fisheries Sector, which has been key in stimulating growth for both of Fisheries and Allied Sectors thereby directly and indirectly contributes to the National GVA. A large section of people of the country are getting their livelihood and employment from Fisheries Sector. Moreover, Fisheries Sector has now emerged as a sunrise sector and Fish and Fisheries Products are among the most traded food commodities in the World. As such, this Sector possesses huge potential to contribute the much required revenues to the Government at different levels. The Committee, therefore, strongly recommend for taking all necessary steps for the growth and development of Fisheries Sector of the country. The Committee in particular recommend that the potential areas in Fisheries Sector of each State/UT be clearly identified and they should be duly encouraged and incentivized to ensure more capital investments and optimal utilization of Fisheries Resources in a Target-oriented manner and fixed time frame.

Employment Generation in Fisheries Sector

18. The Committee note that the Fisheries Sector of the country is a fast-growing sector in India, which besides providing income and employment to more than 2.80 Crore people also provides nutrition and food security to a large population of the country. It is also growing as one of the important foreign exchange earner for the country. The contribution of Fisheries Sector to Gross Value Added (GVA) at constant prices in 2022-23 has been estimated at Rs.1,37,716 crore. Jobs in this Sector range from production and sale of inputs to fishing, fish-farming, harvesting, processing, marketing and distribution of fish. Fishing and aquaculture operations can be informal and small-scale as well as highly organized and industrial in nature. Estimation of employment potential in Fisheries Sector quantitative terms is reportedly a complex task, as fish is a natural resource and its availability, demand and price realization is also highly dependent on multiple compounding factors such as environment market dynamics, climate change, changes in productivity, various regulations, quota-based regime or a fusion of both etc. However, in the last five years, the total employment generation under all Schemes of the Department is reportedly 26,99,320.

Under the Pradhan Mantri Matsya Sampada Yojana, (PMMSY), total project cost worth of Rs 11,029.34 Crore have been approved and a total Investment of Rs.9866.67 Crore has been made since inception of the Scheme for various fisheries developmental activities with a view to generate nearly 7,64,380 direct employment in Fisheries Sector. The Department plans to achieve an ambitious employment generation target of 55 Lakh by the year 2024-25 under PMMSY. The Committee appreciates the achievements made by the Department in the implementation of its various Schemes and Programmes, which has resulted in

generation of a substantial number of employment in the Fisheries Sector. The Committee at the same time hold the view that the full potential of the Fisheries Sector yet remains to be realized in the Country. The Committee, therefore, recommend that investments in Fisheries Sector, especially in the areas having the potential for enhancement of export, Post-harvest processing and import substitution, be increased to optimally utilize the resources available in this sector as it will bring about the necessary employment generation in this Sector. The Committee would like to be apprised of the action taken in this matter.

New Delhi
06 February, 2024
17 Magha, 1945 (Saka)

P.C. GADDIGOUDAR
Chairperson
Standing Committee on Agriculture,
Animal Husbandry and Food Processing

**Component wise physical targets and their corresponding Achievements during the
Financial Years - 2020-21 and 2021-22**

(Rupees in lakhs)

| Sl. No | Components | PMMSY year Targets | | Total Achievements (from inception till date) | | |
|--------|--|--------------------|------------|---|------------|-----------|
| | | Physical | Investment | Physical (No.) | Investment | GoI Share |
| 1 | Establishment of New Freshwater Finfish Hatcheries (Nos) | 320 | 8000.00 | 454 | 11115.00 | 3854.00 |
| 2 | Establishment of New Freshwater Scampi Hatcheries (Nos) | 20 | 1000.00 | 4 | 200.00 | 69.00 |
| 3 | Construction of New Rearing ponds (Ha) | 8100 | 56700.00 | 2970.7 | 20794.90 | 7007.33 |
| 4 | Construction of New Grow-out ponds (Ha) | 8100 | 56700.00 | 10892.6 | 77915.98 | 24974.30 |
| 5 | Inputs for fresh water Aquaculture including Composite fish culture, Scampi, Pangasius, Tilapia etc. (Ha) | 8100 | 32400.00 | 11134.12 | 44152.29 | 14462.99 |
| 6 | Establishment of need based New Brackish Hatcheries(shell fish and fin fish) (Nos) | 55 | 2750.00 | 13 | 650.00 | 192.00 |
| 7 | Construction of New ponds for Brackish Water Aquaculture | 7300 | 58400.00 | 1325 | 10504.00 | 3058.56 |
| 8 | Construction of New ponds for Saline /Alkaline areas | 3000 | 24000.00 | 1615 | 12600.00 | 3664.51 |
| 9 | Inputs for Brackish Water Aquaculture | 7300 | 43800.00 | 1325 | 7950.00 | 2311.20 |
| 10 | Inputs for Saline /Alkaline Water Aquaculture | 3000 | 18000.00 | 1465 | 10410.00 | 3595.66 |
| 11 | Stocking of Fingerling (FL) in Wetlands @2000FL/ha | 150000 | 9000.00 | 4971 | 149.13 | 55.53 |
| 12 | Stocking of Fingerlings in Reservoirs @1000FL/ha | 600000 | 18000.00 | 359605.39 | 12402.68 | 3826.47 |
| 13 | Establishment of Small Marine Finfish Hatcheries | 17 | 8500.00 | 5 | 250.00 | 74.00 |
| 14 | Construction of large Marine Finfish Hatcheries | 5 | 1250.00 | 5 | 1250.00 | 390.00 |
| 15 | Marine Finfish Nurseries | 100 | 1500.00 | 5 | 75.00 | 19.80 |
| 16 | Establishment of Open Sea cages (100-120 cubic meter volume) | 11000 | 55000.00 | 1556 | 7780.00 | 2105.40 |
| 17 | Establishment of Seaweed culture rafts including inputs | 354000 | 7080.00 | 54500 | 819.00 | 261.00 |
| 18 | Establishment of Seaweed culture with Monoline/tubenet Method including inputs (one unit is approximately equal to 25 ropes of 25m length) | 354000 | 28320.00 | 63531 | 5082.48 | 1449.53 |
| 19 | Bivalve cultivation (mussels, clams, pearl etc.) | 25000 | 5000.00 | 320 | 63.60 | 23.25 |
| 20 | Establishment of Trout Fish Hatcheries | 50 | 2500.00 | 26 | 1300.00 | 646.00 |
| 21 | Construction of Raceways | 3000 | 9000.00 | 3131 | 9295.50 | 4401.03 |
| 22 | Inputs for Trout Rearing Units | 3000 | 7500.00 | 3124 | 7810.00 | 3701.95 |
| 23 | Construction of New Ponds in Himalayan Region. | 500 | 5000.00 | 532.6 | 4440.80 | 2278.67 |
| 24 | Inputs for new Grow out ponds in Himalayan Region | | | 312.6 | 1250.40 | 634.55 |
| 25 | Establishment of Medium RAS for cold | 50 | 1000.00 | 22 | 360.00 | 163.60 |

| Sl. No | Components | PMMSY year Targets | | Total Achievements (from inception till date) | | |
|--------|--|--------------------|-----------------|---|------------|-----------|
| | | Physical | Investment | Physical (No.) | Investment | GoI Share |
| | water fisheries | | | | | |
| 26 | Establishment of Large RAS for cold water fisheries | 20 | 1000.00 | 22 | 1100.00 | 551.00 |
| 27 | Input support for Integrated fish farming (paddy cum fish cultivation, livestock cum fish, etc) | 2000 | 2000.00 | 2248.8 | 2248.80 | 1136.63 |
| 28 | Establishment of Cages in cold water regions | 1000 | 5000.00 | 0 | 0.00 | 0.00 |
| 29 | Backyard Ornamental fish Rearing unit (both Marine and Fresh water) | 1010 | 3030.00 | 1272 | 3816.00 | 1362.06 |
| 30 | Medium Scale Ornamental fish Rearing Unit (Marine and Freshwater Fish) | 707 | 5656.00 | 313 | 2504.00 | 837.28 |
| 31 | Integrated Ornamental fish unit (breeding and rearing for fresh water fish) | 404 | 10100.00 | 120 | 2802.00 | 913.00 |
| 32 | Integrated Ornamental fish unit (breeding and rearing for marine fish) | 303 | 9090.00 | 3 | 90.00 | 25.20 |
| 33 | Establishment of Fresh water Ornamental Fish Brood Bank | 10 | 1000.00 | 2 | 200.00 | 48.00 |
| 34 | Promotion of Recreational Fisheries | Need Based/ DPR | Need Based/ DPR | 71 | 3550.00 | 1503.00 |
| 35 | Establishment of large RAS (with 8 tanks of minimum 90 m3/tank capacity 40 ton/crop)/Biofloc (50 tanks of 4m dia and 1.5 high) culture system. | 550 | 27500.00 | 763 | 37760.00 | 12261.00 |
| 36 | Establishment of large Biofloc (50 tanks of 4m dia and 1.5 high) culture system | | | | | |
| 37 | Establishment of Medium RAS (with 6 tank of minimum 30m3/tank capacity 10 ton/crop)/Biofloc culture system(25 tanks of 4m dia and 1.5 high) | 770 | 19250.00 | 912 | 21882.00 | 7612.52 |
| 38 | Establishment of small RAS (with 1 tank with 100m3 capacity/Biofloc (7 tanks of 4m dia and 1.5 high) culture system | 2000 | 8250.00 | 1994 | 33005.70 | 10695.60 |
| 39 | Establishment of small Biofloc (7 tanks of 4m dia and 1.5 high) culture system | 2000 | | 2441 | | |
| 40 | Establishment of Backyard mini RAS units | 2200 | 1100.00 | 1603 | 801.50 | 245.49 |
| 41 | Installation of Cages in Reservoirs | 20000 | 60000.00 | 18684 | 56052.00 | 18405.36 |
| 42 | Pen culture in open water bodies | 2500 | 7500.00 | 301.7 | 905.10 | 329.03 |
| 43 | Post harvest and cold chain infrastructure | | | | | |
| 44 | Construction of Cold Storages/Ice Plants 10 tonne capacity | 242 | 36300.00 | 339 | 26744.00 | 8730.88 |
| 45 | Construction of Cold Storages/Ice Plants 20 tonne capacity | | | | | |
| 46 | Construction of Cold Storages/Ice Plants 30 tonne capacity | | | | | |
| 47 | Construction of Cold Storages/Ice Plants 50 tonne capacity | | | | | |
| 48 | Modernization of Cold storage /Ice Plant | 174 | 8700.00 | 54 | 2700.00 | 762.00 |
| 49 | Refrigerated vehicles | 600 | 15000.00 | 185 | 4625.00 | 1549.00 |

| Sl. No | Components | PMMSY year Targets | | Total Achievements (from inception till date) | | |
|--------|---|--------------------|------------|---|------------|-----------|
| | | Physical | Investment | Physical (No.) | Investment | GoI Share |
| 50 | Insulated vehicles | 1100 | 22000.00 | 784 | 15750.00 | 4838.20 |
| 51 | Live fish vending Centres | 500 | 2200.00 | 601 | 12020.00 | 3570.80 |
| 52 | Motor cycle with Ice Box | 5500 | 4128.00 | 8195 | 6146.25 | 1911.84 |
| 53 | Cycle with Ice Boxes | 5500 | 1100.00 | 4893 | 489.30 | 167.39 |
| 54 | Three wheeler with Ice Box including e-rickshaws for fish vending | 2200 | 6600.00 | 2867 | 8685.25 | 2719.66 |
| 55 | Fish Feed Mills (mini) | | 8250.00 | 498 | 25170.00 | 8461.80 |
| 56 | Fish Feed Mills (medium) | | | | | |
| 57 | Fish Feed Mills (large) | | | | | |
| 58 | Fish Feed Plants | 55 | 35750.00 | 22 | 14300.00 | 4407.00 |
| 59 | Construction of fish retail markets including ornamental fish/aquarium markets. | 275 | 27500.00 | 185 | 15500.00 | 4338.00 |
| 60 | Construction of fish kiosks including kiosks of aquarium/ornamental fish | 1650 | 16500.00 | 5659 | 24703.75 | 7517.93 |
| 61 | Fish Value Add Enterprises Units | 440 | 22000.00 | 91 | 4580.00 | 1739.80 |
| 62 | E-platform for e-trading and e-marketing of fish and fisheries products | DPR based | 2500.00 | 5 | 151.35 | 40.69 |
| 63 | Support for acquisition of Deep sea fishing vessels for traditional fishermen | 400 | 48000.00 | 376 | 45120.00 | 12676.00 |
| 64 | Up gradation of existing fishing vessels for export Competency | 5000 | 75000.00 | 527 | 7199.63 | 2002.58 |
| 65 | Establishment of Bio-toilets in mechanised fishing vessels | 25000 | 12500.00 | 4250 | 2125.00 | 582.30 |
| 66 | Establishment of Disease diagnostic and quality testing labs | 210 | 5250.00 | 14 | 350.00 | 112.50 |
| 67 | Disease diagnostic and quality testing Mobile labs/clinics | 100 | 3500.00 | 21 | 735.00 | 214.20 |
| 68 | Communication and /or Tracking Devices for traditional and motorised vessels like VHF/DAT/NAVIC/Transponders etc. | 50000 | 175.00 | 14900 | 5215.00 | 1418.27 |
| 69 | Support for providing safety kits for fishermen of Traditional and motorized fishing vessels (other than Communication and/or Tracking Device mentioned at 10.1 above) | 12000 | 120.00 | 1673 | 1216.36 | 588.20 |
| 70 | Providing boats (replacement) and nets for traditional fishermen | 5000 | 25000.00 | 5018 | 20904.70 | 5998.41 |
| 71 | Support to Fishermen for PFZ devices and network including the cost of installation and maintenance etc. | 50000 | 60.00 | 1000 | 110.00 | 33.00 |
| 72 | Extension and support Services | 25 | 400.00 | 70 | 1750.00 | 503.50 |
| 73 | Livelihood and nutritional support for socio-economically backward active traditional fishers' families for conservation of fisheries resources during fishing ban/lean period. | 600000 | 135000.00 | 677462 | 99036.23 | 37970.72 |
| | Non-Beneficiary oriented activities under CSS of PMMSY | | | | | |
| 74 | Establishment of Brood Banks (including seed banks for seaweeds) | 25 | 12500.00 | 10 | 4535.60 | 3194.04 |
| 75 | Integrated Development of Reservoirs | 30 | 18000.00 | 19 | 5758.25 | 3964.95 |
| 76 | Integrated Aqua Parks | 6 | 60000.00 | | | |

| Sl. No | Components | PMMSY year Targets | | Total Achievements (from inception till date) | | |
|--------|--|--------------------|------------|---|------------|-----------|
| | | Physical | Investment | Physical (No.) | Investment | GoI Share |
| 77 | Support to states for import of germplasm | Need Based | 1500.00 | 803 | 174.00 | 167.60 |
| 78 | Construction/Expansion of Fishing Harbours. | 12 | 240000.00 | 1 | 8286.00 | 4971.60 |
| 79 | Modernization/Up-gradation of existing Fishing Harbours | 5 | 25000.00 | 1 | 2626.00 | 1575.60 |
| 80 | Modern Integrated Fish Landing Centres | 25 | 62500.00 | 14 | 18763.32 | 10000.39 |
| 81 | Construction of state of art whole sale fish market. | 5 | 25000.00 | 3 | 12078.09 | 7152.65 |
| 82 | Integrated modern coastal fishing villages | 100 | 75000.00 | 1 | 899.85 | 899.85 |
| 83 | Aquatic Referral Labs for Quality testing and Disease Diagnostics | 20 | 20000.00 | 4 | 2115.99 | 1269.43 |
| 84 | Multipurpose Support Services – SagarMitra (performance based incentives along with requisite IT/Communication support like Tablet/mobile telephony etc. would be provided to SagarMitras) | 3477 | 43115.00 | 2489 | 7137.70 | 3450.70 |

Annexure - II

State/UT wise list of employment under the Inland Fisheries Sector along with the status of employment, viz. Full time, Part time, Casual etc.

| Sl. No | States | Full Time | Part Time | Occasional | Unspecified | Total |
|--------------|-------------------|----------------|----------------|---------------|----------------|----------------|
| 1 | Arunachal Pradesh | 0 | 24265 | 0 | 0 | 24265 |
| 2 | Assam | 126321 | 540637 | 29336 | 0 | 696294 |
| 3 | Bihar | 56801 | 89294 | 71544 | 3870457 | 4088096 |
| 4 | Chhattisgarh | 184746 | 17703 | 9939 | 8912 | 221300 |
| 5 | Gujarat | 18931 | 27412 | 0 | 0 | 46343 |
| 6 | Haryana | 4697 | 5579 | 1800 | 4200 | 16276 |
| 7 | Himachal Pradesh | 5574 | 6301 | 0 | 0 | 11875 |
| 8 | Jharkhand | 17700 | 47250 | 51900 | 40100 | 156950 |
| 9 | Karnataka | 147118 | 285689 | 202745 | 17178 | 652730 |
| 10 | Kerala | 183840 | 0 | 0 | 0 | 183840 |
| 11 | Madhya Pradesh | 77974 | 99132 | 0 | 0 | 177106 |
| 12 | Maharashtra | 202703 | 88941 | 36439 | 21630 | 349713 |
| 13 | Manipur | 2983 | 6359 | 1127 | 2168 | 12637 |
| 14 | Meghalaya | 2635 | 6413 | 6941 | 458 | 16447 |
| 15 | Mizoram | 1609 | 2816 | 1112 | 752 | 6289 |
| 16 | Nagaland | 255 | 537 | 2773 | 3037 | 6602 |
| 17 | Odisha | 224264 | 197257 | 127814 | 250640 | 799975 |
| 18 | Punjab | 0 | 0 | 0 | 0 | 0 |
| 19 | Rajasthan | 6265 | 14128 | 920 | 0 | 21313 |
| 20 | Sikkim | 2627 | 0 | 0 | 0 | 2627 |
| 21 | Tamil Nadu | 0 | 70708 | 9003 | 29193 | 108904 |
| 22 | Telangana | 401272 | 265378 | 260560 | 73736 | 1000946 |
| 23 | Tripura | 4251 | 4893 | 675 | 0 | 9819 |
| 24 | Uttar Pradesh | 120371 | 0 | 0 | 0 | 120371 |
| 25 | Uttarakhand | 2340 | 6964 | 1253 | 467 | 11024 |
| 26 | Chandigarh | 10 | 0 | 0 | 0 | 10 |
| 27 | Daman & Diu | 794 | 964 | 420 | 0 | 2178 |
| 28 | Delhi | 277 | 489 | 115 | 0 | 881 |
| 29 | Jammu & Kashmir | 16286 | 880 | 0 | 230 | 17396 |
| 30 | Puducherry | 2040 | 714 | 350 | 150 | 3254 |
| Total | | 1814684 | 1810703 | 816766 | 4323308 | 8765461 |

Annexure - III

State/UT wise list of employment under the Marine Fisheries Sector along with the status of employment, viz. Full time, Part time, Casual etc.

| Sl. No | States | Full Time | Part Time | Occasional | Unspecified | Deep Sea | Total |
|---------------|---------------------------|------------------|------------------|-------------------|--------------------|-----------------|----------------|
| 1 | Andaman & Nicobar Islands | 23868 | 612 | 0 | 0 | 0 | 24480 |
| 2 | Gujarat | 108617 | 14405 | 0 | 0 | 0 | 123022 |
| 3 | Karnataka | 100900 | 59407 | 9754 | 102812 | 21602 | 294475 |
| 4 | Kerala | 604953 | 56155 | 0 | 0 | 0 | 661108 |
| 5 | Maharashtra | 134870 | 47527 | 14336 | 6361 | 23008 | 226102 |
| 6 | Tamil Nadu | 200628 | 233797 | 52381 | 86102 | 19500 | 592408 |
| 7 | Daman & Diu | 5093 | 65389 | 52 | 0 | 0 | 70534 |
| 8 | Lakshadweep | 3101 | 967 | 0 | 0 | 0 | 4068 |
| 9 | Puducherry | 37177 | 6914 | 1800 | 12838 | 25 | 58754 |
| Total | | 1219207 | 485173 | 78323 | 208113 | 64135 | 2054951 |

State/UT wise status of Issuance of KCC for Fisheries Sector

| S.N. | State Name | Number of Applications | | |
|--|---------------------------|------------------------|-----------------|--------------|
| | | Received | Sanctioned | Pending |
| 1 | Andaman & Nicobar Islands | 7,898 | 7,576 | 5 |
| 2 | Andhra Pradesh | 33,839 | 20,619 | 29 |
| 3 | Arunachal Pradesh | 217 | 15 | 1 |
| 4 | Assam | 15,073 | 5,265 | 1,287 |
| 5 | Bihar | 4,273 | 725 | 104 |
| 6 | Chandigarh | 2 | - | - |
| 7 | Chhattisgarh | 4,919 | 1,277 | 613 |
| 8 | Dadra And Nagar Haveli | 2 | 2 | - |
| 9 | Daman And Diu | 321 | 310 | - |
| 10 | Delhi | 24 | - | - |
| 11 | Goa | 464 | 442 | 3 |
| 12 | Gujarat | 23,080 | 13,946 | 266 |
| 13 | Haryana | 550 | 190 | 8 |
| 14 | Himachal Pradesh | 982 | 842 | 7 |
| 15 | Jammu And Kashmir | 1,167 | 824 | 5 |
| 16 | Jharkhand | 7,972 | 1,987 | 24 |
| 17 | Karnataka | 10,621 | 6,513 | 779 |
| 18 | Kerala | 7,252 | 6,838 | 46 |
| 19 | Ladakh | 132 | 132 | - |
| 20 | Lakshadweep | 444 | 444 | - |
| 21 | Madhya Pradesh | 56,280 | 22,511 | 2,624 |
| 22 | Maharashtra | 18,449 | 11,369 | 205 |
| 23 | Manipur | 514 | 407 | 2 |
| 24 | Meghalaya | 190 | 170 | - |
| 25 | Mizoram | 165 | 41 | - |
| 26 | Nagaland | 197 | 8 | - |
| 27 | Odisha | 6,185 | 1,257 | 105 |
| 28 | Pondicherry | 2,876 | 1,611 | 23 |
| 29 | Punjab | 810 | 268 | 49 |
| 30 | Rajasthan | 6,418 | 4,886 | 2 |
| 31 | Sikkim | 222 | 45 | - |
| 32 | Tamil Nadu | 39,989 | 19,612 | 57 |
| 33 | Telangana | 23,755 | 5,557 | 26 |
| 34 | Tripura | 12,230 | 10,857 | 8 |
| 35 | Uttar Pradesh | 18,502 | 10,983 | 612 |
| 36 | Uttarakhand | 650 | 400 | 85 |
| 37 | West Bengal | 11,369 | 8,123 | 37 |
| | Total | 3,18,033 | 1,66,052 | 7,012 |
| Source : Department of Financial Services | | | | |

**Standing Committee on Agriculture, Animal Husbandry and Food Processing
(2021-22)**

Minutes of the Twenty Second Sitting of the Committee

The Committee sat on Tuesday, the 2nd August, 2022, from 1500 hours to 1635 hours in Committee Room 'B', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri P.C. Gaddigoudar – *Chairperson*

Members

Lok Sabha

2. Shri Afzal Ansari
3. Shri Horen Singh Bey
4. Shri Devendra Singh 'Bhole'
5. Shri Kanakmal Katara
6. Shri Kinjarapu Ram Mohan Naidu
7. Shri Devji Mansingram Patel
8. Smt. Shardaben Anilbhai Patel
9. Shri Shrinivas Dadasaheb Patil
10. Shri Pocha Brahmananda Reddy
11. Shri Rajiv Pratap Rudy
12. Shri Mohammad Sadique
13. Shri Virendra Singh
14. Shri V.K. Sreekandan
15. Shri Ram Kripal Yadav

Rajya Sabha

16. Smt. Ramilaben Becharbhai Bara
17. Shri Kailash Soni
18. Shri Vaiko

Secretariat

- | | | | |
|----|------------------------|---|----------------------|
| 1. | Shri Shiv Kumar | - | Additional Secretary |
| 2. | Shri Sundar Prasad Das | - | Director |
| 3. | Shri Anil Kumar | - | Deputy Secretary |
| 4. | Shri Prem Ranjan | - | Deputy Secretary |

Witnesses

Ministry of Fisheries, Animal Husbandry and Dairying

[Department of Fisheries]

| | Name | Designation |
|----|---------------------------------|---|
| 1. | Shri Jatindra Nath Swain | Secretary |
| 2. | Dr. Jujjavarapu Balaji | Joint Secretary (Marine Fisheries) |
| 3. | Shri Sagar Mehra | Joint Secretary (Inland Fisheries) |
| 4. | Dr. Niyati Joshi | Director (Fisheries Statistics) |

2. At the outset, the Chairperson welcomed the Members of the Committee to the Sitting convened for the briefing by the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) on the Subject 'Employment Generation and Revenue Earning Potential of Fisheries Sector'. Thereafter, the Representatives of the Department of Fisheries were called in. The Chairperson welcomed the Representatives to the Sitting of the Committee and apprised them that the discussion in the Sitting of the Committee is to be treated as confidential and should not be made public till the Report of the Committee is presented to Parliament.

3. After the introduction by the witnesses, the Chairperson initiated the discussion, which was followed by a Power-point Presentation by the Representatives of the Department that covered Fisheries Sector Development Schemes such as, Blue Revolution, Pradhan Mantri Matsya Sampada Yojana (PMMSY), Fisheries and Aquaculture Infrastructure Development Fund (FIDF), Measures undertaken for Increasing fish production and domestic fish consumption, Modernisation of fishing harbours, Insurance for fish farmers, Kisan Credit Card and Employment/Revenue Generation under various Schemes. Thereafter, the Chairperson and Members of the Committee deliberated on several issues/points pertaining to the Subject under

discussion and also sought clarifications/information from the Department, as briefly mentioned below:

- a. Need to undertake steps so as to improve the Fisheries Sector which is predominately marine by improving harbours so as to reduce Post Harvest Losses and bring them down.
- b. To focus on increasing fish production to 22 Million Tonnes under the Pradhan Mantri Matsya Sampada Yojana and work closely with Marine Products Export Development Authority(MPEDA) to double the export earnings to Rs. One lakh Crore by the year 2024-25.
- c. To take steps to Increase the Aquaculture Production and also to increase the domestic fish consumption from 5 Kg to 12 Kg Per Capita Per Year. Formulation of Schemes after completion of the Demand Study Report of National Council of Applied Economic Research regarding increasing fish consumption.
- d. To promote and make available Frozen Fish as is done in case of Frozen Peas so that the consumption of fish can be increased up to the level of Japan's consumption, which is about 24kg per capita by 2047.
- e. To focus on Ranching flower shrimps/ Sea Ranching in Pak Bay Region and further take steps for preservation of coastal fisheries and stabilizing them by creation of Artificial Reefs.
- f. To increase the Gross Value Added to fish production, which grew at the rate of 9% (compound annual growth rate) in 2019-20 to 53.86% of Gross Value Added to fish production by the financial year 2024-25, thereby increasing the Revenue Generation.
- g. The target under Pradhan Mantri Matsya Sampada Yojana (PMMSY) to create an estimated total employment generation of 55 lac nation-wide by the year 2025 should be subdivided and certain targets should be fixed for more populous states such as Bihar where employment is less and poverty is more.
- h. To focus on pursuing State Governments, particularly States of Bihar and Uttar Pradesh to ensure that they utilize all the funds allocated to them under the PMMSY. Further, to undertake measures to exploit the full potential of Bihar and

make it self sufficient in fish seed production. Efforts to be made to make fish seeds available locally and also steps are to be taken to develop Hatcheries on a Public Private Partnership (PPP) Model.

- i. To focus on the status of total investment done up-till now under Pradhan Mantri Matsya Sampada Yojana (PMMSY) comparatively in Coastal as well as non Coastal States, particularly in the State of Uttar Pradesh.
- j. To formulate a Scheme for educated unemployed youth of Coastal Communities, like the Koli community, dwelling near big dams/lakes/ponds in coordination with National Banks and after imparting training by the Fisheries Department so as to provide meaningful employment and also increase fish production. To encourage unemployed youth to take up pond and Bio-Floc Fish Culture.
- k. To strive for developing fishing activities as the Pilot Project in Canals, which are predominant in the State of Rajasthan so that the migration of fishing communities from Rajasthan to Maharashtra can be stopped.
- l. To focus and take measures so that Institutional Finance is being made available to fishers, fish farmers and facilitate penetration of Kisan Credit Card to the fishermen. Further, building of Digital Portal by the Department along with SIDBI so that all the applications that are sent to the banks are being accounted for eventually enhancing the performance of KCC.
- m. Contribution to Fish Production is 70 percent by Inland Fisheries and 25 percent by Marine Fisheries, Hence, Budgetary allocation may also be considered in the ratio of 25:75 between Marine and Inland Fisheries. To increase Fish Production, focus also should be given on Inland Fisheries, since 70 percent of total fishermen are engaged in Inland Fisheries.
- n. To formulate an Insurance Scheme for the Fishers.
- o. To focus on Fish Landing Centers in Inland areas under Pradhan Mantri Matsya Sampada Yojana (PMMSY), and to coordinate with State Governments for providing Cold Chain and Refrigeration Units to Fishermen in areas, which are flood prone.

- p. To generate Centralized Data Bank regarding the locations of all the Ponds in the country which have an enormous potential for fishing. Further, to focus on the status of construction and Renovation of Ponds under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).
- q. To focus on implementation of Schemes such as providing of Housing, Auto-rickshaws, Bicycles and Motorcycles with ice boxes to Fishermen. Further, many Fishermen don't have Banking facility, hence measures should be taken so that the fishermen benefit from all these schemes.
- r. To take steps to ensure that model Detailed Project Reports (DPR's) are made available on the Departments website as well as State Government offices so as to help entrepreneurs in the Fishing Sector in preparing their Project Reports.
- s. To increase the Specific Component Allocation for Ornamental fisheries depending upon the demand from respective State Governments.
- t. To take steps to include Inland Fresh Water Fish in total Fish Export of the Country. Measures to be taken to boost export of Tilapia fish, which forms the largest component of exports from inland sector and, to undertake Pilot Projects to promote the same.
- u. To take measures so that more information is made available through Digital Networks, enabling the producer/farmer to reach out to more people, whenever he/she is harvesting fish, thereby avoiding middle men and thus exploitation.
- v. To focus on Dissemination of relevant information to Fishers/Fish Farmers regarding welfare schemes that are being implemented by the Government under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) for their upliftment.
- w. Strategise to reach the Export Target under Pradhan Mantri Matsya Sampada Yojana (PMMSY).
- x. Total allocation of funds (mainly Capital Expenditure), so far made to the States under Pradhan Mantri Matsya Sampada Yojana (PMMSY) and the Employment Generated thereby, State wise.

- y. Houses so far constructed under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).
4. The Representatives of the Department responded to some of the queries raised by the Members. The Chairperson, then, thanked the witnesses for sharing valuable information with the Committee on the Subject and directed them to send, in writing, the requisite information on points / items, which were not readily available with them, to the Committee Secretariat by 12th August, 2022.

The Committee then adjourned.

[A copy of the verbatim proceedings of the Sitting has been kept separately.]

**Standing Committee on Agriculture, Animal Husbandry and Food Processing
(2022-23)**

Minutes of the Second Sitting of the Committee

The Committee sat on Tuesday, the 15th November, 2022, from 1100hrs. to 1245 hrs. in Committee Room No. 3, Block A, Extension to Parliament House Annexe, New Delhi.

PRESENT

Shri P.C. Gaddigoudar – *Chairperson*

Members

Lok Sabha

2. Shri A Ganeshamurthi
3. Shri Kanakmal Katara
4. Shri Devji Mansingram Patel
5. Shri Pocha Brahmananda Reddy
6. Shri Devendra Singh *alias* Bhole Singh
7. Shri Ram Kripal Yadav

Rajya Sabha

8. Shri Masthan Rao Beeda
9. Dr. Anil Sukhdeorao Bonde
10. Shri S.Kalyansundaram
11. Shri Kailash Soni
12. Shri Randeep Singh Surjewala
13. Shri Ram Nath Thakur

Secretariat

- | | | | |
|----|----------------------------|---|----------------------|
| 1. | Shri Shiv Kumar | - | Additional Secretary |
| 2. | Shri Naval K. Verma | - | Director |
| 3. | Shri Uttam Chand Bharadwaj | - | Additional Director |
| 4. | Shri Prem Ranjan | - | Deputy Secretary |
| 5. | Shri N. Amarathiagan | - | Under Secretary |

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Standing Committee and informed them that as directed by the Hon'ble Speaker, LAARDIS will make a presentation before the Committee so as to make the Members aware of the new initiatives taken towards capacity building for augmentation of

research, new initiatives in the Parliament Library, creating awareness about the rich resources/repositories of the Parliament Library, training programmes by PRIDE etc. Thereafter, Officers of LAARDIS made their Power Point Presentation.

3. The Committee then took up for consideration the following Action Taken Reports:

- (i) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Thirtieth Report of the Committee on the Subject 'Status of Veterinary Services and Availability of Animal Vaccine in the Country' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying);
- (ii) Draft Action Taken Report on Action-taken by the Government on Observations/Recommendations contained in the Thirty-Seventh Report of the Committee on 'Demands for Grants (2022-23)' pertaining to the Ministry of Agriculture & Farmers Welfare (Department of Agriculture and Farmers Welfare);
- (iii) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Thirty-Eighth Report of the Committee on 'Demands for Grants (2022-23)' pertaining to the Ministry of Agriculture & Farmers Welfare (Department of Agricultural Research and Education);
- (iv) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Thirty-Ninth Report of the Committee on 'Demands for Grants (2022-23)' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries);
- (v) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Fortieth Report of the Committee on 'Demands for Grants (2022-23)' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying); and
- (vi) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Forty-Second Report of

the Committee on 'Demands for Grants (2022-23)' pertaining to the Ministry of Cooperation.

4. After some deliberations, the Committee adopted the Draft Action Taken Reports without any modification and the Committee authorised the Chairperson to finalise and present these Reports to the Parliament.

5. After Consideration and Adoption of the Six Action Taken Reports, the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) were called in for taking Evidence in connection with examination of the Subject 'Employment Generation and Revenue Earning Potential of Fisheries Sector'. The following Representatives of the Department of Fisheries appeared as witnesses before the Committee:

| | Name | Designation |
|----|---------------------------------|---|
| 1. | Shri Jatindra Nath Swain | Secretary |
| 2. | Shri Sagar Mehra | Joint Secretary (Inland Fisheries) |
| 3. | Shri Shankar L | Joint Commissioner (Fisheries) |
| 4. | Dr. Niyati Joshi | Director (Fisheries Statistics) |

6. The Chairperson welcomed the Representatives to the Sitting of the Committee and briefly informed them about the agenda of the Sitting. Hon'ble Chairperson also apprised them that the discussion in the Sitting of the Committee is to be treated as confidential and should not be made public till the Report of the Committee is presented to Parliament.

7. After the introduction by the witnesses, the Chairperson initiated the discussion, which was followed by a briefing by the Representatives of the Department that covered the topics such as increasing Fish production to 22 million tonnes by 2025, reviving Coastal Fisheries, promotion of Cage Culture in reservoirs/ponds and marine waters, flow of credit to Fishing Sector, diversification of seed sources for Shrimp Culture and measures to increase the demand for Frozen Fish in the country. Thereafter, the Chairperson and Members of the Committee deliberated on several issues/points pertaining to the subject under discussion and also sought clarifications/information from the Department, as briefly mentioned below:

- a) To take steps for reviving Coastal Fisheries by starting Artificial Reefs, and River Ranching so that the fishermen living besides the rivers are benefited;
- b) To take up Cage Culture in reservoirs and ponds and also in marine waters especially in the estuaries;
- c) To focus on increasing the credit flow in the Fisheries Sector and take necessary steps for the same;
- d) To take necessary steps so that Shrimp Aquaculture gets a diverse source of their seeds and to develop a breed that can give an alternative to the farmers and reduce dependency exclusively on Vannamei Shrimp.
- e) To explore alternatives and ways to expand the market and increase the demand for Frozen Fish in the country;
- f) To explore the possibilities for creation of a separate Research Council for Fisheries Sector on the lines of Indian Council of Agricultural Research and bring all Fishery Research Institutes under one umbrella and attach them to the Ministry of Fisheries;
- g) To take steps to establish a specialised Research Institute for Shrimp Culture in Andhra Pradesh since it contributes more than 50 percent to Shrimp Culture;
- h) To address the issues like fish feed, fish processing technologies, storage, and marketing;
- i) To expedite the research on the challenges faced by cultured fish export like seed production, disease control, farm management techniques, harvesting, and post-harvesting technologies;
- j) To analyse the reasons for under utilisation of funds allocated under the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) and Pradhan Mantri Matsya Sampada Yojana (PMMSY);
- k) To explore the possibilities, if, National Fisheries Development Board can be authorised to implement all the Central Sector Schemes including Pradhan Mantri Matsya Sampada Yojana;
- l) To design specific programmes for the youth belonging to the communities wholly dependent on fishing;
- m) To explore the possibilities if the ponds and reservoirs owned by State Government/ Zila Parishad can be reserved for the Organisations/Cooperatives formed by the fishermen communities;

- n) To make available preservation facilities such as cold storages for the fishermen communities, so that they can capture the local market;
- o) To encourage Agriculture Universities researching on fisheries to go to grass root level and impart technical knowhow to fish farmers and farmers who are into culture of Basa fish which constitutes an important component of fish imports;
- p) To take measures to rope in Krishi Vigyan Kendras to impart knowledge and technical knowhow to fishers and thereby increase production;
- q) To take steps to increase the utilisation of funds by the state of Bihar and take measures to boost production and economic prosperity of the people of Bihar;
- r) To examine the reasons for less utilisation of funds in states such as Andaman and Nicobar Islands and Laddakh;
- s) To examine the probability of roping in Zilla Panchayats for upkeep of ponds and reservoirs;
- t) To take steps to educate and train the fishermen communities dwelling besides rivers/sea so that they can access information uploaded by the Department on its website;
- u) To examine the possibilities of providing interest free or minimum interest finance to Fish Farmers;
- v) To take steps to promote fresh water Inland fishes such as Katla;
- w) To explore the possibilities of providing insurance cover on the lines of Pradhan Mantri Fasal Bima Yojana to fish farmers who are affected due to overflowing of Dams during rainy season;
- x) To take steps to encourage cultivation of low prices species such as tilapia;
- y) To take steps to provide International market to farmers producing P. Monodon Shrimps and also explore the possibilities whether under the Pradhan Mantri Matsya Sampada Yojana each state can be given a Grant so that the states in turn can subsidise the electricity tariff of shrimp farmers; and
- z) To take steps for the promotion of Sea Weed Cultivation.

8. The Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries) responded to most of the queries raised by the Members. The Chairperson, then, thanked the witnesses for sharing valuable information with the Committee on the Subject and directed them to send, in writing,

the requisite information on points / items, which were not readily available with them, to the Committee Secretariat by 25th November, 2022.

The Committee then adjourned.

[A copy of the verbatim proceedings of the Sitting has been kept separately.]

**Standing Committee on Agriculture, Animal Husbandry and Food Processing
(2023-24)**

Minutes of the Fifth Sitting of the Committee

The Committee sat on Tuesday, the 06th February, 2024 from 1500 hrs. to 1530 hrs. in the Office of Chairperson, Room No. 103, Block-B, Extension to Parliament House Annexe, New Delhi.

Present

Shri P. C. Gaddigoudar – Chairperson

Members

Lok Sabha

2. Shri Horen Sing Bey
3. Shri Kanakmal Katara
4. Shri Mohan Mandavi
5. Smt. Sharda Anilkumar Patel
6. Shri Bheemrao Baswanthrao Patil
7. Shri Shrinivas Dadasaheb Patil
8. Shri Devendra Singh *alias* Bhole Singh
9. Shri Ram Kripal Yadav

Rajya Sabha

10. Smt. Ramilaben Becharbhai Bara
11. Shri Masthan Rao Beedha Yadav
12. Dr. Anil Sukhdeorao Bonde
13. Shri Kailash Soni
14. Shri Ram Nath Thakur
15. Shri Vijay Pal Singh Tomar
16. Shri Harnath Singh Yadav

Secretariat

- | | | | |
|----|--------------------------|---|----------------------|
| 1. | Shri Shiv Kumar Wadhawan | – | Additional Secretary |
| 2. | Shri Khakhai Zou | – | Director |
| 3. | Shri Prem Ranjan | – | Deputy Secretary |
| 4. | Shri Anil Kumar Sanwaria | – | Deputy Secretary |

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Committee. Thereafter, the Committee took up for consideration and adoption of Draft Reports on the following Subjects:

- * (i) xxxx xxxx xxxx xxxx
- * (ii) xxxx xxxx xxxx xxxx
- (iii) Employment Generation and Revenue Earning Potential of Fisheries Sector [Ministry of Fisheries, Animal Husbandry and Dairying (Department of Fisheries)]
- * (iv) xxxx xxxx xxxx xxxx

3. After some deliberations, the Committee adopted the Draft Report without any modification. The Committee also authorized the Chairperson to finalize and present the Report to Parliament.

The Committee then adjourned.

*Matter not related to this Report