



GOVERNMENT OF ODISHA

**ANNUAL ACTIVITY REPORT**  
**2019-20**

FISHERIES & ANIMAL RESOURCES DEVELOPMENT  
DEPARTMENT

# ANNUAL ACTIVITIES REPORT

## 2019-20

### FISHERIES SECTOR



## 1. Introduction:

Fish is recognized as a global super food. Fisheries and aquaculture is one of the fastest growing food sectors and has been playing a pertinent role in the economic development front on account of its contribution to food and nutritional security, national income, employment opportunities as well as generating livelihood options.

Odisha is one of the important maritime states of India having excellent scope for fisheries development. The state has 6.85 lakh ha. of freshwater resources, 4.18 lakh ha of Brackish water resources and 480 Kms. of coastline for fisheries development of the state. In order to ameliorate these ample resources, Government have taken up a mission for doubling of inland fish production and increasing the present export to Rs.20,000 Crores. The total provisional fish production of the State during 2018-19 is 7.59 lakh MTs. Accordingly, the Department proposes to take up horizontal expansion of culture areas as well as vertical expansion to reach average productivity to the level of 5.00 tonnes/ ha. The present provisional annual per capita fish consumption is 15.38 Kg. To achieve this ambitious goal, Government of Odisha have come up with 'Odisha Fisheries Policy, 2015' during September, 2015.

## 2. Fisheries Resources:

### Freshwater Fisheries Sector:

Resources	Total Area (In lakh Ha.)
Tanks/Ponds	1.34
Reservoirs	2.00
Lakes/Swamps/Bheels	1.80
Rivers/Canals	1.71
Total	6.85

### Brackishwater Fisheries Sector:

Resources	Total Area (In lakh Ha.)
Area suitable for Culture	0.33
Back Water	0.08
Chilika Lake	0.79
Estuaries	2.98
Total	4.18

MARINE SECTOR:

Coast Line	480 Kms.
Continental Shelf Area	24,000 Sq. Km. (approx4)
District-wise Coastal Length (in Kms.)	
Balasore	80
Bhadrak	50
Kendrapada	68
Jagatsinghpur	67
Puri	155
Ganjam	60
Total Coastal length	480
Continental shelf area in different depth Zone (in Sq. Km.)	
Depth Zone (in Mtr.)	Sq. Km.
0-20	6820
20-50	8650
50-100	4810
100-200	3550
TOTAL	23830

Estimated potential to different resources up to 200m depth contour along the Odisha coast in ton			
Sharks	2226	Leather-jackets	3040
Rays	1705	Silver bellies	5763
Eels	1717	Big-jawed jumper	105
Catfishes	12653	Black pomfret	2264
Wolf herring	954	Silver pomfret	4630
Oil sardine	957	Indian mackerel	12736
Other sardines	15648	Other mackerels	275
Hilsa shad	2264	S. commerson	2789
Other shads	477	S. guttatus	1509
Coilia	3115	S. lineolatus	26
Setipinna	6328	E. affinis	1108
Stolephorus	5441	Auxis spp.	1
Thryssa	3045	K. pelamis	27
Other clupeids	18078	Other tunnies	12

Bombay duck	4967	Billfishes	30
Lizard fishes	3872	Barracudas	248
Half beaks & full beaks	139	Mulletts	464
Rock cods	266	Halibut	1
Snappers	541	Soles	6660
Threadfin breams	603	Penaeid prawns	49328
Other perches	4103	Non-penaeid prawns	8301
Goatfishes	8356	Lobsters	43
Threadfins	299	Crabs	3734
Croakers	45885	Stomatopods	136
Ribbon fishes	28575	Squids	516
Horse Mackerel	4289	Cuttle fishes	1448
Scads	1093	Miscellaneous	1888
	TOTAL		292568

OTHER FISHERIES RESOURCES		
FISH SEED HATCHERY:	Unit	
Freshwater :	No.	Fry Capacity (in millions)
Government (R&D)	05	70.00
Government hatchery(OPDC)	18	88.00
Government rearing farm	25	40.00
OPDC	05	155.00
Private	86	700.00
ICE PLANT AND COLD STORAGE	No.	Capacity (in MT)
Ice Plant	57	613.5
Cold Storage	12	67
MARINE FISH LANDING CENTRE		
1. Harbour	4	
2. Jetty	25	
3. Other Landing Centre	44	
Total	73	
5. Fish Drying Platform	10	3269
CRAFTS (Marine)(In Nos.)		
A. Mechanized	1741	
B. Motorized	9281	
C. Country Crafts ( Non Motorized)	8452	
TOTAL	19474	
Total Marine Fishermen families	1,15,228	As per CMFRI Survey
Total Marine Fishermen Population	5,17,623	2016



### 3. Development of Fisheries Sector in Odisha:

#### OBJECTIVES:

- Implementation of “Odisha Fisheries Policy, 2015” to double fish production of the State and to reach the export to Rs.20,000 crores.
- Maximum utilization of water bodies with stocking of quality seed.
- Generating employment & higher income in fisheries sector,
- Improving socio-economic conditions of traditional fisher folk & fish farmers and to double the income of fishers.
- To acquire self-sufficiency in Inland Sector,
- Conservation of aquatic resources & generic diversity.

#### MANDATE:

- Optimum utilization of Inland Water Resources for Pisciculture,
- Maximizing utilization of Brackish water Resources,
- Harnessing marine resources in greater proportion keeping in mind the environmental issues
- Adapting scientific technology for enhancing productivity with greater emphasis to private entrepreneurs
- Improving professionalism through training/counseling of major stakeholders involved in fisheries sector
- Forming cooperative's and S.H.G.s for community participation and expanding market potentials,
- Dissemination of new technologies through its extension machinery,
- Providing livelihood support to unemployed youths through Self Employment Programme (SEP).

#### ONGOING GOVERNMENT OF INDIA SCHEMES & PROGRAMMES:

The following Government of India schemes and programs are being operated in the State under Fisheries Department:



### Centrally Sponsored Schemes Blue Revolution:

- Development of Inland Fisheries & Aquaculture
- Welfare Schemes for Fishermen
  - Saving-cum-relief
  - Prime Minister Surakhya Bima Yojana (PMSBY)
  - Training & Extension.
  - Development of Marine Fisheries, Infrastructures & Post-Harvest Operations
  - Motorization of Traditional Crafts
  - Assistance for Fish Transport infrastructure
  - Safety of fishermen at sea
  - Establishment of FH & FLCs
  - Development of Brackish Water Aquaculture
  - Promotion of Sea Bass Culture
  - Development of Fishing Harbours, Fish Landing Centres & Jetties

### State Sector Scheme:

- MPY- Matsya Pokhari Yojana
- MUY – Matsyjibi Unayana Yojana
- RIDF – Rural Infrastructure Development Fund
- Development of Inland Fisheries under Fisheries Policy
- Popularization of Fisheries Machineries/Equipment
- Organization of Skill Upgradation Training
- Livelihood Support to Marine Fisherman during Fishing Ban Period
- Reactivation of Fisheries Cooperative Societies

### Others:

RKVY- Rastriya Krishi Vikas Yojana



#### 4. BUDGET

(Rs. In lakh)

Establishment, Operation & Maintenance (EOM) Expenditure		
YEAR	PROVISION	EXPENDITURE
2010-11	4162.00	3931.00
2011-12	3819.00	3703.00
2012-13	4675.00	4341.00
2013-14	4402.00	4226.00
2014-15	4823.38	4616.49
2015-16	5345.53	5234.80
2016-17	6361.46	5750.49
2017-18	7722.07	6426.10
2018-19	7398.35	6570.86
2019-20	6958.54	5301.81 (as on 31.1.20)

(Rs. In lakh)

PLAN BUDGET (2019-20 Programme Expenditure)									
PROVISION, SANCTION AND EXPENDITURE									
Year	STATE PLAN			CENTRAL PLAN			CENTRAL SPONSORED PLAN		
	Prov.	Sanc.	Expr.	Prov.	Sanc.	Expr.	Prov.	Sanc.	Expr.
2011-12	2958.00	1474.56	1469.83	602.92	0.00	-	2926.91	1165.20	1165.20
2012-13	3367.44	1043.27	1043.27	120.28	0.00	-	4221.89	668.34	668.34
2013-14	5711.92	5683.45	5673.99	200.05	0.00	-	3223.18	1865.61	1865.61
2014-15	5682.31	5612.29	5612.29	85.29	0.00	-	3800.04	1819.61	1819.61
2015-16	7350.00	7043.42	7043.42	73.40	20.00	20.00	3319.89	1124.22	1124.22
2016-17	8776.66	7332.65	7332.65	73.40	0.00	0.00	3171.14	2232.36	2232.36
2017-18	10340.01	8939.95	8939.95	0.00	0.00	0.00	2243.00	1801.43	1801.43
2018-19	10543.48	10227.34	10227.34	0.00	0.00	0.00	5067.54	3345.48	3345.48
2019-20	8617.08	8386.96	8386.96	0.00	0.00	0.00	8279.52	835.60	835.60

#### 5. Odisha Fisheries Policy, 2015:

Government of Odisha has come up with the 'Odisha Fisheries Policy, 2015; vide Gazette notification No. 1282, Dt. 2<sup>nd</sup> September, 2015. The Policy intends to be a pioneer in aquaculture Development and fisheries extension for ensuring food security, livelihood, welfare of fishers and employment generation.



The Policy aims to address sustainable utilization, protection/ promotion of nutritional security, livelihood security of fisher community, gaps in the legal and regulatory framework and their enforcement, gaps in the administrative structure and processes, financing mechanisms including subsidies, technology and extension support etc. as well as social and environmental implications. The highlight of the said Policy is as under:

- REALISTIC RESOURCE ASSESSMENT: For sustainable management of capture and culture fisheries, a detailed survey using Remote Sensing and Geographic Information System (GIS) for monitoring of plan & programs in fishery sector shall be undertaken.
- CAPTURE FISHERIES: Appropriate measures for developing, propagating, conserving and protecting riverine and other open water fisheries.
- CULTURE BASED FISHERIES IN LAKES/ RESERVOIRS: Regular stock enhancement in reservoirs with basic infrastructure facilities of captive hatcheries, nurseries, fry/ advance fingerling raising centers, fish landing and handling sheds ice plants/ Cage/ Pen culture programs shall be taken up for enhancing the reservoir fish productivity and production. 25% of reservoirs under the control of fisheries Department could be considered for leasing to private entrepreneurs for commercial pisciculture.
- AQUACULTURE IN TANKS & PONDS: Best practices being followed in the neighboring states of West Bengal, Andhra etc. shall be adopted for increasing the fish production. Government shall provide long term lease of the waterlogged areas/dead rivers to farmers/ entrepreneurs for aquaculture with incentives.
- FISH SEED PRODUCTION: The Government will augment the existing capacity of the fish seed hatcheries in private sector to meet the widening gap between the demand and supply of fish fingerlings/ yearlings.
- ORNAMENTAL FISH CULTURE: Freshwater ornamental fish breeding and rearing in backyard hatcheries will be popularized as a cottage industry, among the rural community and SHGs.
- SUSTAINABLE COASTAL AQUACULTURE: Development of coastal aquaculture clusters with basic infrastructure such as inlet and outlet channels, road connectivity, electricity, ice plants, cold storages, etc., in PPP mode will be encouraged and promoted, where the private entrepreneurs and small-scale Aquaculturists can co-exist.
- MARINE FISHERIES: The guidelines and provisions of the Comprehensive Marine Fisheries Policy (2004) of the Government of India, which advocates protection and conservation of the resources, encouragement to

subsistence level fishermen and technology transfer to small-scale sector, infrastructure support to industrial sector, ecosystem based fisheries management, etc., shall be adopted in letter and spirit.

- DEEP SEA FISHING: Deep sea fishing shall be promoted with incentives to marine fishermen and entrepreneurs, wherever necessary.
- POST-HARVEST INFRASTRUCTURE SUPPORT & MARKETING: Development of Post-harvest Infrastructure Support & Marketing shall be encouraged, both in inland and marine fisheries sector through suitable scheme/ projects.
- FISHING HARBOURS & FISH LANDING CENTERS: Efforts shall be made towards modernization of all fishing harbours/ Jetties/ fish landing centers along the Odisha coast with ongoing / new scheme through PPP mode.
- FISH MARKETING & TRADE: Odisha Pisciculture Development Corporation (OPDC)/ FISHFED will be strengthened to cater to the needs for fish preservation, transportation, distribution & marketing.
- SAFETY OF FISHERMEN AT SEA AND WELFARE OF FISHERMEN: Efforts will be made to provide safety & welfare to the fisher community through various ongoing & new schemes.
- CAPACITY BUILDING AND OTHER SUPPORT FOR IMPLEMENTING THE POLICY: Capacity building of fisher/ extension personnel will be taken up through adequate training and exposure visit to successful sites within & outside the country. Consultants for different activities will be engaged for providing expertise, technology, capacity building and preparation of DPRs etc.
- SUPPLEMENTARY NUTRITION: A farmer-friendly policy under the broad name 'social fishery' will be initiated where farmers will grow these species of small fish along with other traditional carps without substantial investment for their economic as well as nutritional benefits.
- INFORMATION, EDUCATION & CAPACITY BUILDING (IEC) & AWARENESS: Comprehensive training, exposure visits, refresher courses, extension services, advisory and awareness programs will be promoted and implemented so as to build human resource capacity and to increase levels of knowledge, skill and expertise amongst the State fisheries officials, rural masses, fishers and in the public and private sectors, at district and village levels.
- ENTREPRENEURSHIP DEVELOPMENT & SELF EMPLOYMENT: Government will play a catalytic role in self-employment through developing private entrepreneurship in fisheries through various ongoing & new schemes
- FISCAL INCENTIVES: Declaration of aquaculture at par with agriculture for enabling easy credit flow/institutional finance, lower power tariffs, tax,

excise/customs duty concessions/ waiver/ exemptions and water supply, will be considered in consultation with the authorities concerned. Necessary incentives and tax holidays will be provided to large-scale fish farmers who produce 10 tons/ha or more of fish.

- PLANNING & GOVERNANCE: There will be coherence between the policies within and outside the fisheries sector to ensure that all policies and schemes are in harmony with fisheries management objectives.
- FISHERY CO-OPERATIVES: Steps will be taken to strengthen the human resource base and improve the financial base of the existing Fisheries Co-operative Societies from Primary to apex level and to revive/ revitalize the ailing Marine PFCS/ PMFCS & Fisheries Federation (FISHFED). The activities of the apex cooperative federation will be re-oriented and re-structured.
- ORGANIZATIONAL ASPECTS: Fisheries Department will be strengthened with requisite technical and engineering personnel for smooth and successful implementation of fisheries programs and activities. Statistical wing in fisheries will be strengthened by developing proper data collection.
- LEGAL FRAMEWORK: The provisions of OMFRA shall be strictly enforced and a stringent fishery management system put in place. Odisha Inland Fisheries Act & Fish seed & hatchery certification will be framed on the lines of the Model Inland Fisheries & Aquaculture Act of the Ministry of Agriculture and that of other relevant States and notified, and the Rules there-under framed and implemented.
- FUNDING: Odisha Government will make extensive efforts to provide adequate funding to the fisheries sector through State and Central Plan schemes, as well as from external sources.



Releasing of fish seed in Pen Nursery at Kodigaon Reservoir , Koraput district

## 6. FRESHWATER AQUACULTURE

### Water Area Development:

A new State Plan Scheme has been introduced during 2017-18 namely "Maccha Chasa Pain Nua Pokhari Khola Yojana" popularly known as "Matsya Pokhari Yojana" (MPY). In last two years, 1808.59 ha of tanks have been developed under the scheme against the target of 2129.58 ha. During the year 2019-20, there is budget provision of Rs.4486.94 lakhs for development of 1055.58 ha of new tanks. The development of tanks is under progress.

### CENTRAL SECTOR ASSISTANCE SCHEMES

The Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries has accordingly restructured the scheme by merging all the ongoing schemes under an umbrella of Blue Revolution. The restructured scheme provides focused development and management of fisheries, covering inland fisheries, aquaculture, and marine fisheries including deep sea fishing, Mariculture and all activities undertaken by the National Fisheries Development Board (NFDB).

The restructured Plan Scheme on *Blue Revolution: Integrated Development and Management of Fisheries* has been approved at a total central outlay of Rs.3000 crore for implementation during a period of five years (2015-16 to 2019-20) with the following components:-

- (i) National Fisheries Development Board (NFDB) and its activities,
- (ii) Development of Inland Fisheries and Aquaculture,
- (iii) Development of Marine Fisheries, Infrastructure and Post-Harvest Operations,
- (iv) Strengthening of Database & Geographical Information System of the Fisheries Sector,
- (v) Institutional Arrangement for Fisheries Sector
- (vi) Monitoring, Control and Surveillance (MCS) and other need-based Interventions
- (vii) National Scheme of Welfare of Fishermen

Under Blue Revolution targets have been communicated to all districts to take up different activities. The subsidy pattern has been modified and 40% assistance is being given to General category beneficiaries and 60% subsidy to ST/SC and women entrepreneur , with further sharing subsidy at 60:40 basis (60% CS+40% SS).

### Establishment of Fresh Water Fish seed hatchery:

During last two years, against the target of 20 fish seed hatcheries, 12 hatcheries have been completed with production capacity of 10 million fry each and another 8 hatcheries are on progress under Blue Revolution which is meant for integrated development of fisheries including post harvest operation and other infrastructure.

### Construction of Fish Landing Centre

During last two years funds amounting to Rs.120.00 lakhs have been received for construction of 30 nos. Fish Landing Centers at reservoir sites which are under progress.

### Assistance for supply of Inland Crafts & Gears

During last two years funds amounting to Rs.55.80 lakhs have been received for supply of 250 Boat & Net units to members of reservoir based PFCS/SHG which is under progress.

### Re-circulatory Aquaculture System

During 2018-19 & 2019-20, Rs.100.00 lakhs was received for development of RAS in Bhanjanagar & Chiplima Fish Farms under OPDC. The work is under progress.

### Introduction of Genetically Improved Farmed Tilapia (GIFT):

Genetically Improved Farmed Tilapia (GIFT), a fast growing, high yielding and affordable variety of fish has been introduced in Odisha as diversification strategy for fish farmers. Presently, it is the most widely farmed tilapia variety across the globe. GIFT can grow to market size (700-1000 g) within 6 months of crop duration and can yield 7.5 to 10 Metric Tons/Ha/crop. The seed of mono-sex (all-male) GIFT Tilapia procured from MPEDA-RGCA Tilapia Hatchery, Vijayawada, Andhra Pradesh have been provided to 130 farmers across 17 districts covering an area of 40 ha with farm-gate technical and marketing support. Establishment of a GIFT tilapia hatchery and multiplication centre is under progress in the Kausalyaganga Government Fish Farm. Already 1,50,000 lakhs monosex GIFT Tilapia seeds have been produced and distributed to farmers.

### Reservoir Fish Production Enhancement:

The present fish productivity from the Reservoirs of the state is around 150 kg/ha. The production is being enhanced by stocking of good quality advanced fingerling and building awareness among the members of Primary Fishermen Co-operative Society. In order to stock advanced fingerling (50-100 g) in the reservoirs captive pen nurseries are installed under the technical guidance of ICAR-CIFRI, Barrackpore. During the year 2019-20, 18 ha of pen nurseries have been installed in Balimela Reservoir in Malkangiri district, 23 lakhs of advanced fingerlings have been raised and released in the reservoir. Under the State Plan Scheme "Promotion of Reservoir Fisheries" Rs.70.00 lakhs have been allotted to the districts for stoking of 17,54,500 no.s of advanced fingerling in 38 nos. of reservoirs in Mayurbhanja, Ganjam and Nayagarh district.

### GIS & spatial planning for inland fisheries resources management:

In order to harness the benefit of vast inland water resources GIS and spatial planning cell in the Directorate has been established with the technical guidance from the WorldFish to create Geo-tagged master list (GIS map) of all these fisheries resources in the state for proper planning and implementation of the various fisheries programs in the State.

## 7. CAPACITY BUILDING & EXPOSURE VISIT

### Training to fish farmers

In order to empower the fish farmers with recent advances in Pisciculture practices regular training programmes of 15 days duration are conducted under State Plan Scheme "Organization of Skill Upgradation Training and Awareness Meet in fisheries sector". At present these training programmes are conducted in 4 nos of Govt. institutes namely FTI Balugaon, BWTC Paradeep, FISHFED Bhubaneswar & OMTDC Jagannathpur. It has been targeted to train 750 nos of Fish Farmers in fresh water and brakish water sector during the current year 2019-20 against which 478 nos of farmers have been trained so far. Besides another 446 nos of fish farmers were also trained this year from the target fixed for the year 2018-19.

## 8. Odisha-WorldFish Project:

WorldFish is an international organization and one of 15 CGIAR research centers with head quarters in Penang, Malaysia. The WorldFish mission is to strengthen livelihoods and enhance food and nutrition security by improving fisheries and aquaculture.



A Memorandum of Agreement (MoA) for technical collaboration between the Fisheries and Animal Resources Development Department, Government of Odisha and The WorldFish, Malaysia was signed on 28th June 2016. The project commenced on 1st July 2016 and will continue till 31st March 2022. The overall objective of the MoA is to technically support the F&ARD Department to implement the Odisha State Fisheries Policy-2015 and to achieve "sustainable aquaculture and fisheries sector in Odisha State, India, creating employment, stimulating inward investment and contributing to State goals for reducing malnutrition among vulnerable and marginalized communities, particularly women and children". As per MoA the WorldFish is working on the following components:

- I ) Promotion of nutritionally sensitive Carp- Mola Production system
- II ) Carp Intensification and hatchery seed quality improvement
- III ) Introduction of Genetically Improved Farmed Tilapia (GIFT)
- IV ) Reservoir Fish Productivity and Production Enhancement
- V ) GIS & Spatial planning for inland fisheries resources management

The Odisha-WorldFish Project office has been set up in the Directorate of Fisheries campus, Cuttack. The Deputy Director of Fisheries, Reservoir is the Nodal Officer for the project. The project is managed by a Project Manager and assisted by other staff members hired by the project. Component leaders of national and International repute have been engaged to render guidance and technical support to the farmers. The activities and implementation is regularly reviewed by the Director of Fisheries in the presence of Nodal Officer and project staff. Priority is given for selection of community water bodies, GP tanks and MIPs to encourage women SHGs and Primary Fishermen Cooperative Societies to actively take part in the programme and get benefitted by increased fish production.

#### I. Promotion of Nutrition-sensitive Carp- Mola Polyculture system:

Odisha is one of the important states with excellent resources for fish production. The fish production is also low. Nutritional status of the state is also very poor. About 34% of the children below 5 are malnourished. Many farming households are facing health and economic risks because of problems in malnutrition as a result of lack of knowledge on improved technology for fish production. Carp-mola production technology is one of the most suitable and time demand technologies to increase fish production and overcome the malnutrition situation of the children of the state. Having the fruitful experience in carp-mola production through working in Bangladesh and other countries, WorldFish has provided all the technical guidance to introduce the mola into Carp farms in Odisha. Mola popularly known as mahurali in Odisha has very good nutritional value The mola auto-breeds 2-3 times in a year in the tank and

increases its biomass by 7-10x within a year. Under the component Source of mola is identified and stocked in the selected water body with technical support from WorldFish. In addition to mola, good quality carp seeds procured from Government Fish Hatcheries are stocked. Regular harvest of mola is done which gives nutritional food for the family and additional income to the farmers.

In addition 22 nos of community tanks and 780 nos of backyard tanks are taken in three districts named Jagatsingpur, Balasore and Mayurbhanja under USAID funded project on "scaling innovative and nutrition-sensitive fisheries technologies through partnership in Odisha".

## II. Carp Intensification and hatchery seed quality improvement:

Indian Major Carps, Rohu, Catla and Mrigal have excellent consumer demand in the state. The present production level is 2.50 Metric Ton per Ha. It is required to double the production by adopting improved farming technology. The activity intends to stock of good quality fish seeds of >100 gram (advanced fingerlings) and use formulated pellet feeds of 24-28 % crude protein and 3-4% fat. The programme aims at regular stocking and harvesting thereby doubling the fish production. Technical support is rendered by the project.

## III. Introduction of Genetically Improved Farmed Tilapia (GIFT):

Genetically Improved Farmed Tilapia (GIFT), a fast growing, high yielding and value buy variety of fish has been introduced in Odisha. GIFT variety of tilapia is developed by WorldFish, Malaysia over last 3 decades by employing selective breeding technology. Presently, it is the most widely farmed tilapia variety across the globe. GIFT can grow to market size (600-700 g) within 6 months of crop duration and can yield 3-4 tons/acre/crop. It has very good consumer acceptance qualities such as attractive light grey coloration, tasty white meat with single bone. According to the UN-FAO, tilapia is one of the fastest growing variety of farmed fish around the world, and along with carps and catfish, it will take a share of more than 60% of the total global farmed fish production.

Under GIFT Tilapia farm demonstration was done in 133 acre farms in two years. The seed of All-male GIFT Tilapia procured from MPEDA-RGCA Tilapia Hatchery, Vijayawada by the orders of Directorate of Fisheries under the guidance of WorldFish. Selected farmers are provided handholding support for proper implementation of Better Management Practices (BMPs) and also, farmers will be assisted to market the tilapia in local fish markets. Proper bio-security measures are assured in the culture as per the guidelines of Government of India. Establishment of aGIFT tilapia Hatchery and Multiplication Centre is under construction in the Kausalyaganga Government Fish Farm for which clearance has

been received from the Government of India. At present GIFT Tilapia seeds are produced in a prototype hatchery in Government Fish Farm, Kausalyaganga. GIFT seed is available in the farm for the farmers. Farmers may avail culture advices from the project experts.

#### IV. Input to Women Self Help Groups for pisciculture in Gram Panchayat tanks:

The object of the scheme is empowering women and livelihood support through WSHGs. In the programme Gram Panchayat tanks are given in long term lease (3-5 years) to identify Women Self Help Groups (WSHG) for pisciculture. The WSHGs are guided by Mission Shakti and Odisha Livelihood Mission. The technical support and trainings are imparted to the members of WSHGs by the Directorate of Fisheries and Odisha-WorldFish Project. Inputs are given for culture with project cost of Rs.1.50 lakhs per ha where subsidy 60% maximum Rs.90,000/- is provided under RKVY and State Plan scheme. Best management Practice is followed with stocking of quality seeds of 50-100 gram size. All the tanks are to be stocked with 10 Kg MOLA fish per acre which breeds 2-3 times a year and the product can be consumed by the members which help on eradication of malnutrition. It has been planned to cover 1500 ha of water area every year. On farm technical support is given to the WSHGs by the project.

#### V. Reservoir Fish Production Enhancement:

The fish productivity from the Reservoirs of the state is very low <150 kg/ha. The production can be enhanced by stocking of good quality fish seeds and building awareness among the members of Primary Fishermen Co-operative Society. Two important activities are demonstrated in the reservoirs under technical support from the project.

a. Production enhancement through Fish fingerling stocking and co-management by Pen Nurseries to be installed in selected 46 reservoirs. In most of the Reservoirs the CIFRI designed pen nursery has been installed during 2019-20. Quality seed of IMC is stocked after culture for 3-4 months the seed is released in the same reservoir thereby avoiding mortality during transportation and to ensure release of quality seed of 50-100 gram size.

b. For production of Indian Major Carps in Circular HDPE cages ,two nos of circular cages of 16 mtr dia and 5mtr depth has been installed in Hirakud Reservoir of Sambalpur District, with stocking of >100mm Rohu and Catla seeds. Approximately 20.00 MT ( @ 10.00MT per Kg) of IMC is expected to be produced with Best Management Practice. It is finalized to install another 12 Circular cages during 2019-20.

c. For quick increase of fish production and productivity in sustainable manner and for optimum utilization from the reservoirs, it is necessary to promote cage culture in medium and large reservoirs of the state. Cage culture is an emerging technology for intensive production of fish and has a huge potential for increasing the fish production. It has been planned to take up cage culture in 1% surface area of the reservoir and to invite private investors to take up the culture in partnership with Primary Fishermen Co-operatives and SHGs. The guideline for the activity is prepared by the Odisha-WorldFish Project.

VI. Early seed production programme: Quality fish seed is normally available in the state after induced breeding taken up in rainy season. The induced breeding is taken up with the onset of monsoon during second week of June every year. It has been planned to prepone the breeding by around two months i.e. in April every year. It is decided to upgrade the Government at Kausalyaganga and three farms owned by OPDC named Chipilima, Bhanjanagar and Saramanga. The action plan has been prepared by Odisha-WorldFish Project and submitted for approval.

VII. Exposure visit of officials organized by the Odisha-WorldFish Project:

➤ Considering the shared vision of government of Odisha and WorldFish on harnessing the value of fish for Human Health and Nutrition, a one-day high level meeting was facilitated between top policy makers of Government of Odisha and WorldFish Executive team and Scientists in Penang, Malaysia on 05.11.2019. The purpose of the meeting was to discuss and agree on strategies for maximizing the nutritional outcomes from fisheries and aquaculture in Odisha.

The senior officials from Odisha Mr. Suresh Chandra Mohapatra, IAS, Development Commissioner-cum-Additional Chief Secretary, Mr. Pradipta Kumar Mohapatra, IAS, Agriculture Production Commissioner-cum-Additional Chief Secretary, Mrs. Anu Garg, IAS, Principal Secretary, Women and Child Development & Mission Shakti Department, Mr. R. Raghu Prasad, IAS, Commissioner-cum-Secretary, Fisheries & ARD Department participated in the discussion. The meeting noted the strong vision of the Government of Odisha to increase the impact of fish on development within the State. The meeting also took note of positive progress made with fisheries and aquaculture in the State of Odisha. The team made an exposure visit in Malaysia and Cambodia.

➤ A high-level delegation led by Mr. Pradipta Kumar Mohapatra, IAS, Agriculture Production Commissioner-cum-ACS has made an exposure visit to reservoir cage culture sites in Pune, Maharashtra on 09.01.2020. Mr. Raghu Prasad, IAS, Commissioner-cum-Secretary, Fisheries & ARD Dept., Mr. N. ThirumalaNaik, IAS, Director of Fisheries, Mr. T. Prasada Rao Dora, President, FISHFED, Odisha

and Mr. Umesh Kumar Mohanty, Additional Director of Fisheries were in the delegation. WorldFish has organised this exposure visit under the existing technical collaboration with Government of Odisha. The objective of this inter-state exposure visit was to understand the cage culture policy of Maharashtra and get first-hand information its impact on investment by private sector players in cage culture and local socio-economic development. So far, Maharashtra has installed about 3,000 rectangular cages in 50 reservoirs.

- Bangladesh exposure visit was organized from 29.1.2020 to 5.2.2020. Total 11 no's of officials from Department of Fisheries, Mission Shakti , OLM and W&CD Department participated. The team visited different locations to witness nutrition sensitive fisheries and aquaculture activities.
- Andhra Pradesh exposure visit was organized from 7.2.20 to 12.2.20 to different aquaculture locations of Andhra Pradesh. 18 Departmental officers and 14 officers from Odisha-WorldFish Project participated in the visit. The activity was initiated towards strengthening of human resources of Fisheries Department under 5T frame work of fisheries sector. The team witnessed stocking and transportation of quality fingerling, Harvesting and packing of fishes, Fish feed companies and super aqua laboratories.

#### VIII. GIS & Spatial planning for inland fisheries resources management:

Odisha has excellent freshwater fisheries and aquaculture resources. However, there is need to have a Geo-tagged master list of all these fisheries resources through utilization of Geographical Information System for proper planning and implementation of the various fisheries programs in the State. A GIS and Spatial planning cell will be established in the Directorate for GIS mapping of all types of water bodies and fisheries resources in the state. A GIS based MIS has been developed with WorldFish initiative. A mobile AAP has been developed and tested in different locations of the state.

#### I. Popularisation of Amur Carp in Odisha:

Promotion of Amur carp in Odisha as an important component in carp intensification and species diversification plan. Under Odisha-WorldFish Project it is intended to take up breeding of Amur carp in coming April, 2020 in four selected fish farms of the Department as a part of year round breeding programme. This year 2019-20 total 1000 nos of brood stock higher strain of Amur carp fingerling from Bangalore were air lifted and stocked in the four farms. The protocols of brood stock management has been supplied to the concerned farm in-charge and the brood stock is maintained in separate tanks.

Fish is the animal source food with the fastest growing production in the World. Fish is the cheapest and most accessible animal-origin food for poor consumers. Fish consumption has a critical role to play in boosting dietary diversity and reducing the number of people who suffer from micronutrient deficiencies, with lifelong benefits for health and productivity. The presence of WorldFish international organization in the state will not only help in enhancing fish production but the technical support will add a new chapter in the exposure and efficiency of the Departmental officers.

## 9. FISH SEED PRODUCTION:

In order to achieve the goal for doubling the fish production of the State, much emphasis has given for production & supply of quality fish seeds to the fish farmers. During the year 2019-20, 29391.25 lakhs Spawn & 6781.405 lakhs of Fry have been produced from government. OPDC & Private farms and supplied to the farmers. The Department having 28 breeding farms & 25 rearing farms besides 86 fish seeds farms in private sector farm where above seeds were produced and supplied.

Sector wise Spawn & Fry production of the State is given below:

### Spawn Production in Odisha as on 12.2.2020 (in lakhs)

Year	Government	OPDC	Private	Total
2019-20	3796.25	6468.00	19117.00	29381.25

### Fry Production in Odisha (in lakhs)

Year	Government	OPDC	Private	Total
2019-20	578.06	1375.435	4827.91	6781.405

## 10. Matsyajibi Unnayana Yojana:

Under Matsyajibi Unnayana Yojana during the year, 2019-20, 2486 nos. of children of fisher community have been awarded post matric scholarship @ Rs.3000/-, Rs.5000/- and Rs.7500/- for securing 50%, 60% and 70% mark respectively after joining higher studies. Apart from this 629 nos. of Fisher Women SHGs have been provided revolving fund @ Rs.5000/ SHG for promotion of fisheries activities.



## 11. Co-operative Sector :

a) Under Centrally sponsored Plan Scheme 'Pradhan Mantri Surakhya Bima Yojana' (PMSBY), 11,50,000 Fishers of Odisha state have been provided insurance coverage during the insurance period of 2019-20 (1st June 19 to 31st May 20). Odisha state has been topping the lists of States and UTs in terms of extending coverage to highest nos. of fishermen under the scheme since 2008-09. The scheme covers victims affected by thunder, electric shock, any road accident, drowning and death caused by any animal bite. The premium amount of Rs.12.00 per fisher is shared by Govt. of India and State Govt. on a ratio of 50:50. The scheme provides compensation of Rs.2 lakh in case of death /full permanent disability and Rs.1 lakh in case of partial permanent disability.

During 2019-20, an amount of Rs.62.00 lakhs (as on 31.01.20) have been given to settle 31 nos. of death claims under the Scheme.

b) During 2019-20, under the State Plan Scheme 'Reactivation of Fisheries Cooperative Societies' an amount of Rs.400.00 lakh was provided for reactivation of 200 PFCS @ Rs.2.00 lakhs per PFCS, which is under progress. So, far 310 Primary Fishermen Co-operative Societies have been given revolving fund assistance.

c) FISHFED, the Apex Society in Fishery Cooperative Sector has initiated actions to undertake activities like playing of Specially Designed Mobile vans with the facilities of freezer to store fish, cooking platform, water sink and a foldable service counter (Fish on Wheel)/Canteen Van) to serve hot, ready to fish recipes in Bhubaneswar, Cuttack and other tourist places of importance, installation of High speed Diesel outlet at 13 selected Fish landing Centers and LPG gas at Paradeep Fishing Harbor.

For providing quality fish in hygienic condition at reasonable price to the fish eaters of Bhubaneswar an MOU has been signed with M/S Falcon Exports Pvt. Ltd, Bhubaneswar for establishment of 26 Modern Hygienic Fish Kiosks under the same brand name "Chilika Fresh". Out of this, 13 no Kiosks have commissioned in the Bhubaneswar Municipal Corporation Area. Similarly, another kiosks under the brand name "Hirakud Fresh" at Sambalpur & Chilika Fresh at Nayagarh has already been completed and functioning well.

## 12. BRACKISHWATER AQUACULTURE:

a) Brackish water area development: The total brackish water resources of the State is around 4.18 lakh hectares including the existing shrimp culture area, estuaries, Chilika and back waters. Out of this, 32587 Ha has been identified as suitable area for Brackish water farming.

The Coastal Aquaculture is regulated and managed as per the norms of Coastal Aquaculture Authority Act, Rules & Guidelines. The registration of farms and renewal of licence is mandatory under the Act.

At present, the area development is taken up under Blue Revolution and RKVY with subsidy assistance of 40-60% of the project cost for different categories of beneficiaries. The prescribed unit cost is Rs. 10.00 lakh per Ha which includes excavation of new tanks and input assistance. A beneficiary is eligible for getting subsidy maximum for 2.00 Ha water area.

b) Principles for Lease of Brackish water Area in the State: The Govt. in Revenue & DM Deptt. have issued notification for leasing of suitable Brackish water area on long term basis for a period of 15 years for development of Brackish water aquaculture through SHGs, co-operatives, educated un-employed and entrepreneurs.

Till date 2073 nos. of applications received from beneficiaries measuring an area of 1822.24 Ha. has been sent to respective Tahasildars for verification. 327 nos. 225.50 Ha. of cases have been approved by DLCs to give on Long Term Lease.

c) Export Promotion Cell:

Government of Odisha is targeting to increase Seafood Exports of the State to Rs 20,000 Cr from the present level of Rs. 3000 Cr. One Export Promotion Cell is functioning in the Directorate of Fisheries, Odisha, Cuttack. One Consultant NITTE University Mangalore has been assigned to prepare Road Map and Action Plan for enhancing the present level of Sea food Export from 3000 Cr to Rs. 20,000 Cr/Annum. ORSAC has been entrusted for GIS mapping of coastal areas for finding out the feasible Govt. and private land suitable for Brackish Water aquaculture as per Coastal Aquaculture Authority Act-2005. During the year 2019-20 an amount of Rs. 100.00 lakh have been received from Govt. for the above purpose.

d) Development of Brackish water under Fishery Policy:

During the year 2019-20 an amount of Rs. 50.00 lakh has been received against the target of 10.00 Ha for shrimp culture. Out of which 3.00 Ha has already been developed.

e) Blue Revolution:

No funds have been received during the year 2019-20 under Blue Revolution. But an amount of Rs. 520.00 lakh has been received for construction of new ponds/tanks along with input cost for the year 2018-19 against the target of 130.00 Ha. Out of which 146.26 Ha have been developed and UC of Rs. 156.00 lakh as central share has been submitted to Govt. similarly an amount of Rs. 187.20 lakh for construction of new ponds in brackish water areas (Sea bass culture) against the target of 48.00Ha. Out of which 9.00 Ha have been developed and UC Rs. 56.16 lakh as central share has been submitted to Govt.

### 13. MARINE SECTOR:

Having a coastline of 480 Kms., Odisha is one of the important maritime states of the country having seven coastal districts, where 114,238 fishermen families reside making their livelihood from the open sea.

Marine fisheries in Odisha are a small scale enterprise and activity and the catch is mostly from traditional crafts and gears. In Odisha, around 102 species of fish are caught out of which, important varieties include such as Hilsa, Pomfret, Seer fish, Cat fish, Sciaenids, Mackerel, Elasmobranches, etc. which are the dominant species. High value varieties of fishes and prawns are exported from Odisha. For the socio-economic development of fishermen and improvement of quality of life among fishers, living along the coast, welfare measures are introduced.

a. Pradhan Mantri Surakhya Bima Jojana(PMBSY):

The life of fishermen is insured, for which they do not pay any premium. The Government of Odisha and Government of India contribute Rs. 20.27 per fisherman per annum. In the case of accidental death and permanent disability, the nominee of the deceased gets Rs.2.00 lakh. In case of partially permanent disability, the fishermen are entitled to get Rs.1.00 lakh. Further, Rs.10,000/- is extended as assistance to fishermen towards hospitalization expenses during serious disease that keep them out from livelihood activities.

b. Saving-cum-Relief:

The scheme provides financial assistance to the BPL category of active fishermen with of Rs.3000/- on 50:50 basis shared by Central & State Govt. to inculcate the habit of savings among the fishers. The beneficiary contributes Rs.1500/ @ Rs.170/ per month and last installment of Rs.140/- in a period of nine months. The assistance of Rs. 4500/- including the Govt. and Beneficiary contribution is provided during the lean period i.e. from April to June.

During 2019-20, 10254 nos. of beneficiaries have been covered under the scheme.

c. Livelihood Support to Marine Fishermen During Fishing Ban Period:

This State Plan Scheme was launched in the year 2016-17. It envisages to provide livelihood support to the marine fishermen affected due to fishing ban for a period of seven months every year i.e. from 1<sup>st</sup> November to 31<sup>st</sup> May for Conservation & Protection of Sea turtle.

During 2019-20, 8000 nos. of marine fisher families of Kendrapara, Jagatsinghpur, Puri and Ganjam are targeted to be covered under the scheme @ Rs. 7500/- per family.

d. Motorization of Traditional crafts:

The State is having 21,089 nos. of registered fishing vessels under OMFRA which are engaged in marine fishing. This includes 1741 nos. of mechanised fishing trawlers, 9290 nos. of motorised and 8107 nos. of traditional non-motorised fishing vessels. The traditional non-motorised fishing vessels are being motorised in phased manner depending upon the assistance provided under Blue Revolution.

The scheme aims to enable traditional fishermen to access the potential fishing zones. The marine engines up to 10HP OBM/IBM are being provided to the non-motorised boat owners. The prescribed unit cost of the scheme is Rs. 1.20 Lakh which includes the cost of engine gear and propeller.

During 2019-20, it has been targeted to provide 1200 nos of marine engines to the fishermen.

e. Establishment of Fishing Harbour & FLCs:

The scheme aims for providing infrastructure facilities for safe landing, berthing and hygienic handling of fish catch at the landing centers. The modernization and up-gradation of existing fishing harbours and fish landing centres are also taken up under Blue Revolution, Sagarmala and State Plan schemes of the Govt. It also includes survey & investigation, pre-execution work like preparation of DPR, consultancy service of external agencies.

During the year 2018-19, Rs 49.94 Crores have been sanctioned under convergence of Blue Revolution and Sagarmala by GoI and matching 50% financial assistance of State Govt. Rs 19.978 Crores has been released on 50:50 basis against the administrative approval of Rs. 49.94 Crore. The pre-execution works have been completed and the work shall be started after EIA/EMP Clearance and CRZ Categorization.

For construction/up-gradation 20 FLCs, MoA has been signed with IIT, Madras, Chennai for survey & Investigation and soil exploration for preparation of DPR.

f. Post Harvest Infrastructure Support and Marketing: The scheme envisages to develop hygienic wholesale and retail fish market for better fish trading in the state. During 2019-20 construction work of the one modern hygienic fish market at Mardarajpur, Berhampur has been started with project cost of Rs. 2.865 crore.

g. Implementation of Odisha Marine Fishing Regulation Act:

The Odisha Marine Fisheries Regulation Act, 1983 regulates the marine fishing resource conservation and management within the territorial limit of the State. The Registration, Licensing and Renewal of fishing vessels, enforcement, adjudication and fishing ban are also regulated under the Act & Rules.

h. Safety of Fishermen at Sea:

The scheme component under Blue Revolution and Welfare of fishermen under the State Plan scheme envisages providing safety equipments like DAT, life buoy, life jacket to the sea going fishers. 2960 Distress Alert Transmitters (DAT) has been distributed to the marine fishermen for sea safety.

i. Marine Fish export from Odisha:

The total export value and volume of fish and fisheries products exported during last five years is as follows:

Year	Export of Fish and Fishery products to overseas countries		
	Qty. in MTs	Value (Rs. in Millions)	Value in million US\$
2011-12	21078.00	7,927.60	125.83
2012-13	23691.00	9,084.80	144.20
2013-14	30980.00	18,170.70	300.39
2014-15	34767.00	20,691.72	342.27
2015-16	35612.00	17,918.10	270.18
2016-17	41828.00	22,047.00	332.35
2017-18	53344.00	28,716.12	451.03
2018-19(P)	62513.00	29,694.2	431.61

#### 14 . PUBLICITY IN FISHERIES:

Information on various developments and activities taken up in the Department. The main aim is to reach the people of the State to make effective delivery of fisheries schemes to the targeted beneficiaries.

Print media: Special issue of Odia Quarterly Fisheries News letter "Matsya Darpan" was released by Hon'ble Minister Fisheries & ARD, Odisha during celebration of 66<sup>th</sup> Co-operative week, which emphasized on different fisheries activities of the Department and the ongoing schemes. The newsletters were distributed among the public as well as other line Departments. The Department has also published Leaflets, etc. and regularly publishes advertisements on

various developmental schemes as well as sending weekly technical guidelines to different quarters. The Wall writing of various schemes were made at important places of districts/ block head quarters.

All India Radio & Doordarsan Programmes: 97 Fisheries programmes have been broadcasted by the All India Radio and 93 Doordarsan programmes have been telecasted during 2019-20. The programmes were very popular. Besides, the Fisheries development programmes were also telecasted through some new important channels like; Kalinga TV, News-18 etc.

Production of Video Programme & Documentary Films: Many success stories have been produced and telecasted through Developmental news programmes. Special fisheries programmes and Phone-in programmes have been telecasted through "Krushi Darshan" programme of Doordarsan and AIR. Arrangements are being made for telecast of advertisement on schemes in Doordarshan.

Melas & Fairs: Various exhibitions, workshops, awareness programmes & training programmes were organized at Block/District level and State level to demonstrate and create awareness on different activities of Department. The Department has participated in state level Exhibition like- Krushi Odisha-2020 at Janata Maidan, Chandrasekharpur, Bhubaneswar from 20<sup>th</sup> to 24<sup>th</sup> January, 2020, Adivasi Mela at Bhubaneswar, and Historic Baliyatra at Cuttack. Awareness on empowering Fishermen through Mobile advisory Services and other new schemes was executed in all districts. 30 successful fish-farmers of 30 districts at the rate of one from each district were awarded cash prize of Rs. 10,000/- each and felicitated in Krushi Odisha-2020.

Celebration of National Fish Farmers Day: Fish farmers Day was celebrated on 10<sup>th</sup> July in all the 30 districts with farmers meet. The day was celebrated to remember first hypophysation of carps by eminent scientists like Dr. K.H. Alikunni and Dr Hiralal Choudhury on 10.7.1957 in the Narayan Sagar Government fish farm of Angul. The day is celebrated by all fish lovers every day. The State level celebration was made at the Conference hall of Directorate during 2019-20 with participation of leading fish farmers , fish hatchery owners and entrepreneurs. In this occasion specially emphasized for growing and more production of fingerlings.

World Fisheries Day: World Fisheries Day was celebrated on 21.11.2020 in all the districts. The DFOs have organized training workshop-cum-training program for WSHGs and farmers meets on the occasion and interaction technical sessions were made. The World Fisheries Day was also celebrated in Directorate. The Pvt. Fish seed producer attended the celebration. The discussion was made for early production of spawn, fry & fingerlings.



## 15. ODISHA FISHERIES COOPERATIVE CORPORATION LTD. (FISHFED):

### FISH ON WHEEL VEHICLES :

16 nos. ready to eat Canteen Van "Fish on Wheel Vehicles" are being operated at Bhubaneswar, Puri, Cuttack & Berhampur Municipal area with an objective to provide ready- to- eat fresh, hygienic and nutritious fish & fishery products to the consumers at their demand of places.



Inauguration of "Fish on Wheel " by Hon'ble Chief Minister, Odisha

### MODERN FISH SELLING RETAIL OUTLETS :

FISHFED has its own four nos. of "Chilika Fresh Kiosks" at Siripur, CRP Square, Sahid Nagar in Bhubaneswar and at Sambalpur in the name of Hirakud Fresh. 13 nos. of Modern and Hygienic Chilika Fresh are being operated by M/S Falcon Marines Exports Ltd. in PPP mode inside Bhubaneswar Municipal Corporation area & one number of CHILIKA FRESH at Nayagarh town operated by Friends in PPP mode.



Dr. Arun Kumar Sahoo, Hon'ble Minister Agriculture and Farmer's Empowerment, Fisheries & ARD and Higher Education, Odisha inaugurated "Chilika Fresh" at Nayagarh

“ KANYA RATNA ” SCHOLARSHIP TO THE MERITORIOUS GIRL CHILD OF PFCS MEMBERS :

Every year 30 nos. of girl children are awarded with scholarship @ Rs10,000/- to the pass outs of +2 Science/Commerce/Arts examination who opt for higher education. This year 30 nos. of girl children for various PFCSs have been provided with scholarship for their higher studies in the main function of All India Co-operative Week Celebration held at Rabindra Mandap, Bhubaneswar on 18<sup>th</sup> November,2019.



Award of “ Kanyaratna ” Scholarship

OBSERVATION OF 66<sup>th</sup> ALL INDIA CO-OPERATIVE WEEK :

FISHFED being the Apex Fisheries Co-operative Organisation in the State celebrated the 66<sup>th</sup> All India Co-operative Week from 14<sup>th</sup> to 20<sup>th</sup> November, 2019 like previous year. The main function was organised at Rabindra Mandap, Bhubaneswar with one exhibition-cum-workshop along with distribution of revolving fund, award of Kanya Ratna Scholarship, payment of insurance amount to the family of deceased fishermen and distribution of prizes to the best PFCSs.



Celebration of “ 66<sup>th</sup> All India Cooperative Week ”

16 . Odisha Pisciculture Development Corporation (OPDC):

Odisha Pisciculture Development Corporation Ltd. was incorporated in the year 1998 on 5<sup>th</sup> May and became functional w.e.f. 15<sup>th</sup> October by taking over

the activities of erstwhile Odisha Fish Seed Development Corporation (OFSDC) Ltd. & Odisha Maritime Chilika Area Development Corporation (OMCAD) Ltd. which is under the administrative control of Fisheries & ARD Department, Govt. of Odisha. It's main activities are as follows:

- I. Production and supply of best quality Fish Seed to fish farmers of Odisha as well as outside State.
- II. Production and sale of high quality Nylon and HDPE fishnet webbings for farmers and fishermen of the State.
- III. Sale of quality fuel (HSD & MS) and lubricants to fishermen community operating trawlers, boats as well as surface transporters.

This corporation also has the scope to enter into other business for the development of fisheries sector which will make the corporation stable and sustainable.

#### PHYSICAL AND FINANCIAL ACHIEVEMENTS SO FAR:

##### I. Production and sale of fry

Sl No.	Financial year	Physical target (no. in crores)	Physical achievements (no. in crores)	Financial achievements/ by revenue generated (Rs. In lakhs)	% of Achievements
1	2019-20	15.54	9.85	50.49	63.38

##### II. Production and sale of Fish Net webbings

Sl no.	Financial year	Physical target (in MT)	Physical achievements (in MT)	Financial achievements/ by revenue generated (Rs. In lakhs)	% of Achievements
1	2019-20	50	1026	(-)-30.17	20.52

##### III. Sale of HSD, MS and Lubricants

Sl no.	Financial year	Physical target (in KL)	Physical achievements (in KL)	Financial achievements/ by revenue generated (Rs. In lakhs)	% of Achievements
1	2019-20	16918	8551	145.92	50.54

## 17 . FISHERIES STATISTICS

FISH PRODUCTION IN ODISHA (IN MT)					
Year	Freshwater	Brackishwater	Total Inland	Marine	Grand Total
2013-14	263862	30007	293869	120020	413889
2014-15	300964	35373	336337	133211	469548

2015-16	336216	40307	376523	144755	521278
2016-17	393730	61268	454998	153102	608100
2017-18	454189	79936	534124	150839	684963
2018-19	506608	94033	600641	158321	758962
201920 (Dec, 2019)	364909	91354	456262	122302	578564

#### YEAR-WISE RESOURCE-WISE FRESHWATER FISH PRODUCTION (IN MT)

Year	Tanks/ ponds	Reservoirs	Lakes/Swamps/ Bheels	Rivers/ Canals	Total
2013-14	230939	18940	2803	11180	263862
2014-15	261845	21831	2943	14345	300964
2015-16	289666	22761	4245	19544	336216
2016-17	331187	30068	4881	27594	393730
2017-18	393606	33990	4929	21664	454189
2018-19	442854	37388	5279	21087	506608
2019-20 (Dec, 2019)	318987	26931	3802	15189	364909

#### YEAR-WISE RESOURCE-WISE BRACKISHWATER FISH PRODUCTION (IN MT)

Year	Culture shrimp	Estuaries	Chilika	Total
2013-14	12610	4461	12936	30007
2014-15	19254	4066	12054	35374
2015-16	23343	4729	12235	40307
2016-17	29409	5497	26362	61268
2017-18	58110	5468	16358	79936
2018-19	71615	5518	16900	94033
2019-20 (Dec, 2019)	74631	3643	13080	91354

#### FISH PRODUCTION FROM CHILIKA LAKE (IN MT)

YEAR	FISH	SHRIMP/PRAWN	CRAB	TOTAL
2013-14	7699.71	4927.66	308.97	12936.34
2014-15	7146.77	4572.32	334.58	12053.67
2015-16	7271.95	4564.54	398.77	12235.26
2016-17	12714.95	13295.39	351.37	26361.71
2017-18	11375.26	4706.71	276.37	16358.34
2018-19	11618.05	4951.37	331.90	16900.32
2019-20 (Dec, 2019)	8973.67	3845.86	260.00	13080

YEAR-WISE DISTRICT-WISE MARINE FISH PRODUCTION (IN MT)							
Year	Balasore	Bhadrak	Jagatsin ghpur	Kendrapra	Puri	Ganjam	Total
2013-14	29819	11076	30395	7474	30938	10319	120020
2014-15	35201	11721	36632	7009	11659	30989	133211
2015-16	39327	12006	34503	9059	37979	11881	144754
2016-17	39490	12001	40284	9409	39598	12320	153102
2017-18	38017	12060	41319	8566	38906	11971	150839
2018-19	43133	13010	42469	9475	38033	12201	158321
2019-20 (Dec, 2019)	37288	12423	29786	7382	27534	7889	122302

IMPORT OF FRESHWATER FISH FROM NEIGHBOURING STATES	
Year	Qty. (in MT)
2013-14	26501
2014-15	38118
2015-16	46275
2016-17	35156
2017-18	40742
2018-19 (P)	49607

YEAR-WISE ANNUAL PER-CAPITA CONSUMPTION OF FISH	
Year	Annual Per-capita Consumption (in Kg/Annum)
2013-14	9.66
2014-15	11.06
2015-16	12.24
2016-17	13.49
2017-18	14.42
2018-19 (P)	15.38