

# MATSYA SAMPADA

Newsletter

Krishi Bhawan, New Delhi

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Department of Fisheries  
Ministry of Fisheries, Animal Husbandry & Dairying  
Government of India



डॉ. एल. मुरुगन  
Dr. L. MURUGAN



राज्य मंत्री  
सूचना एवं प्रसारण मंत्रालय और  
मत्स्य पालन, पशुपालन और डेयरी मंत्रालय  
भारत सरकार

MINISTER OF STATE FOR  
INFORMATION & BROADCASTING AND  
FISHERIES, ANIMAL HUSBANDRY AND DAIRYING  
GOVERNMENT OF INDIA



### Message

It gives me immense pleasure to inform that the Department of Fisheries is bringing out the third edition of Newsletter 'MatsyaSampada'. The Newsletter would help readers stay up-to-date with the latest information on government scheme and programmes, progress of projects related to fisheries sector.

PMMSY has made tremendous progress in enhancement of production and productivity, technology infusion, availability of fish feed and providing farmer welfare support and livelihood, along with capacity building. I am sure that the Newsletter would prove to be a wonderful platform for providing the latest information, new policies and initiatives under the PMMSY scheme.

I extend my compliments to Department of Fisheries for the efforts in publishing the Newsletter. I take this opportunity to extend my best wishes to all stakeholders and readers.

  
(Dr. L. Murugan)

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DR. SANJEEV KUMAR BALYAN



75  
आज़ादी का  
अमृत महोत्सव

राज्य मंत्री  
मत्स्यपालन, पशुपालन एवं डेयरी मंत्रालय  
भारत सरकार  
कृषि भवन, नई दिल्ली-110001  
MINISTER OF STATE FOR FISHERIES,  
ANIMAL HUSBANDRY & DAIRYING  
GOVERNMENT OF INDIA  
KRISHI BHAWAN, NEW DELHI-110001



## **MESSAGE**

It gives me immense pleasure to write a prologue for third edition of Newsletter 'Matsya Sampada' published by the Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying. The Newsletter is an outcome of our endeavour to inform and educate young minds and stakeholders about the latest policies, programmes and opportunities in the fisheries sector.

The ultimate goal of this initiative is to empower the fisheries sector through specialized schemes and sustained efforts to promote economic growth, social inclusion and improvement livelihood.

I am sure this Newsletter would serve as one of the important mediums for enabling sustained and inclusive growth of fisheries sector through promotion of various schemes and policies to become globally competent. I extend my wishes to Dr. Jatindra Nath Swain, Secretary, Department of Fisheries and his team, for his commendable efforts in bringing out the third edition of Newsletter 'Matsya Sampada'.

  
(Dr. Sanjeev Kumar Balyan)

जतीन्द्र नाथ स्वेन, भा.प्र.से.  
सचिव

**Jatindra Nath Swain, IAS**  
Secretary



मत्स्यपालन, पशुपालन एवं डेयरी मंत्रालय  
मत्स्यपालन विभाग  
कृषि भवन, नई दिल्ली-110001  
Ministry of Fisheries,  
Animal Husbandry & Dairying  
Department of Fisheries  
Krishi Bhawan, New Delhi-110001

### Message

It gives me great pleasure to learn that the third edition of Newsletter- "Matsya Sampada" is being brought out by Department of Fisheries with the objectives of disseminating knowledge and educating all the stakeholders regarding policies, programmes and new initiatives of the department and the impact thereof.

The Department of Fisheries, Government of India is driving the growth in Fisheries sector through a series of regulatory reforms aimed at promoting ease of doing business and by attracting investments through its flagship schemes of Pradhan Mantri Matsya Sampada Yojana (PMMSY) and Fisheries Infrastructure Development Fund (FIDF). This newsletter had been instituted as a useful platform for showcasing the best practices, latest development and success stories in fisheries sector. I am sure that this will be of great utility to fishers, fish farmers, entrepreneurs and practitioners in fisheries sector.

I also wish to place on record my appreciation for the efforts put in by the editorial team towards making of this Newsletter.

*Jatindra Nath Swain*

**(Jatindra Nath Swain)**

## From the Editorial Desk

Welcome to the third edition of the Newsletter 'Matsya Sampada' published by the Department of Fisheries, Ministry of Fisheries, and Animal Husbandry & Dairying.

With the ever-increasing demand for fish and fish products, fisheries sector plays a significant role in providing food, nutrition and employment around the globe. On 10th September 2020, Hon'ble Prime Minister Shri Narendra Modi launched Pradhan Mantri Matsya Sampada Yojana (PMMSY), the flagship scheme of Department of Fisheries (GoI). We believe that PMMSY is a remarkable scheme that aims at not only ensuring nutrition and food security but also livelihood opportunities to the marginalised communities.

Keeping in view India's diversity and cultures, the implementation of the PMMSY scheme at a National level is a challenging and humongous task. It calls for a great effort and co-ordination amongst the Central government, State governments and UT administrations in order to achieve the striving goal. Thus, an effective medium is required to interact with stakeholders and disseminate information amongst stakeholders especially fishers, fish farmers, youth and entrepreneurs. We believe this edition of Newsletter serves as an authentic source of information and is well timed to bring forth the cumulative effect of on-ground achievements, new policies, reforms and developments.

We would like to thank Shri Jatindra Nath Swain, Secretary (Fisheries), Shri Sagar Mehra, Joint Secretary (Inland Fisheries), Dr. Jujjavarapu Balaji, Joint Secretary (Marine Fisheries), Shri Shankar Laxman, Joint Commissioner (Fy.) and Dr. Niyati Joshi, Director (FS and Social Media) for their valuable guidance and suggestions. We hope all our readers continue to benefit from the published material and it is hoped that this Newsletter will be very useful for all our readers.

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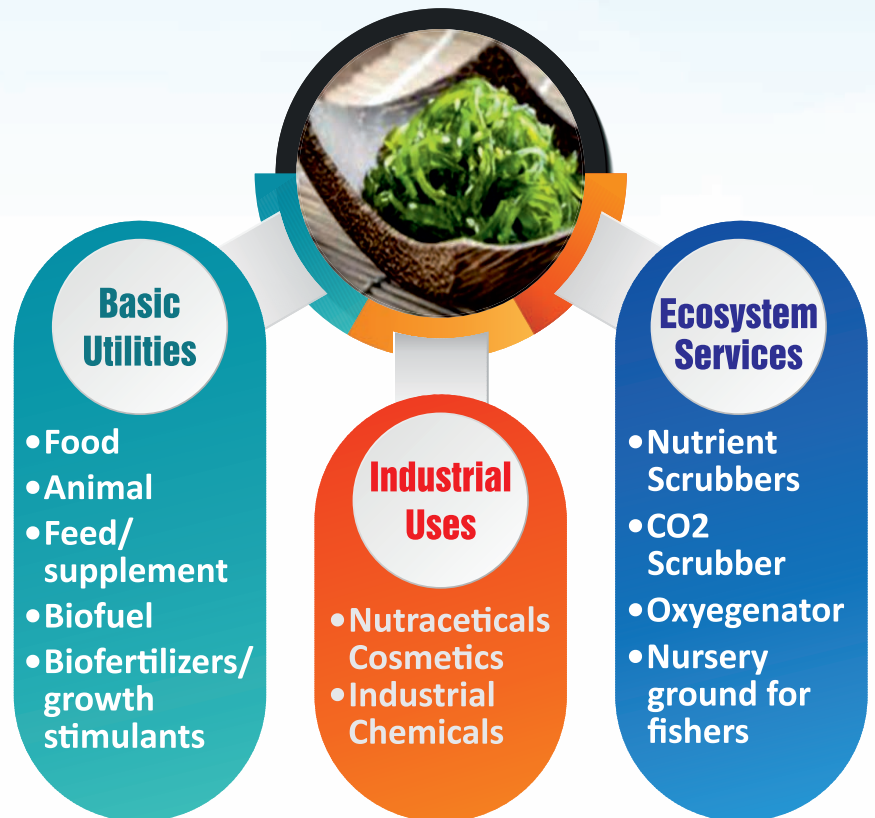
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# PROMOTION OF SEAWEED CULTIVATION IN INDIA

Seaweed is a large and diverse group of marine macro algae that can be found in shallow coastal regions around the world. Around 844 species of seaweed have been reported from the Indian seas, their standing stock is estimated to be about 58,715 tonnes. India possesses around 434 species of red algae, 194 species of brown algae, and 216 species of green algae.

## GLOBAL STATUS OF SEAWEED PRODUCTION

It has been estimated that the global production of seaweed has been increased from 10.6 million tonnes in 2000 to 32.4 million tonnes in 2018 and grew by half a million tonnes in 2020, up by 1.4 percent from 34.6 million tonnes in 2019. Some major producing countries including China and Japan experienced growth in 2020, while seaweed harvests decreased in Southeast Asia and the Republic of Korea.



## ACTIONS INITIATED BY DEPARTMENT OF FISHERIES

NFDB in collaboration with State/UTs fisheries departments, various central and state academic training and research institutions, universities and colleges, fisheries research stations made efforts to promote seaweed farming at total project cost of Rs.53.55 Crores under NFDB funding since 2017. The total seaweed biomass produced about 255.32 tones wet weight *Gracilaria spp.* and 201.72 tones wet weight *Kappaphycus alvarezii*. NFDB released an amount of Rs. 55.173 Crores, for training and demonstration on seaweed culture to fisher communities and women SHGs during 2007-08 to 2018-19. A total of 18 training programmes were conducted and have covered over 1600 beneficiaries.





*Kappaphycus alvarezii*



*Gracilaria edularis*



*Sargassum wightii*



*Turbinaria sp*

## Strategies for Seaweed cultivation & Value chain under PMMSY

Under PMMSY, an investment of Rs. 640 Crores has been envisaged to revolutionize the seaweed sector with an increase in the seaweed production in the country from the current levels to 11.2 lakh ton wet weight until FY 2024-25 and providing opportunities to increase the income of seaweed farmers particularly coastal women.



## STATE/UT-WISE DETAILS OF THE ACHIEVEMENT ON DEVELOPMENT OF SEAWEED CULTIVATION

Approved units of Establishment of Seaweed culture rafts including inputs				
S.No.	States	2020-22 (*till 30.11.2021) (Rs. In lakhs)		
		Physical (No.)	Project Cost	Gol Share
1.	Andhra Pradesh	26000	390	115.2
2.	Gujarat	1000	15	3.6
3.	Karnataka	10000	150	45
4.	Maharashtra	4000	60	21.6
5.	Tamil Nadu	13000	195	70.2
	<b>Total</b>	<b>54000</b>	<b>810</b>	<b>255.6</b>

Approved units for Establishment of Seaweed culture with Monoline/tubenet Method including inputs				
S.No.	States	2020-22 (*till 30.11.2021) (Rs. In lakhs)		
		Physical (No.)	Project Cost	Gol Share
1.	Andhra Pradesh	41200	3296	902.4
2.	Karnataka	21000	1680	508.8
3.	Maharashtra	800	64	23.04
4.	Tamil Nadu	531	42.48	15.29
	<b>Total</b>	<b>63531</b>	<b>5082.48</b>	<b>1449.53</b>



# PMMSY- PARADIGM SHIFT IN FISHERIES & AQUACULTURE

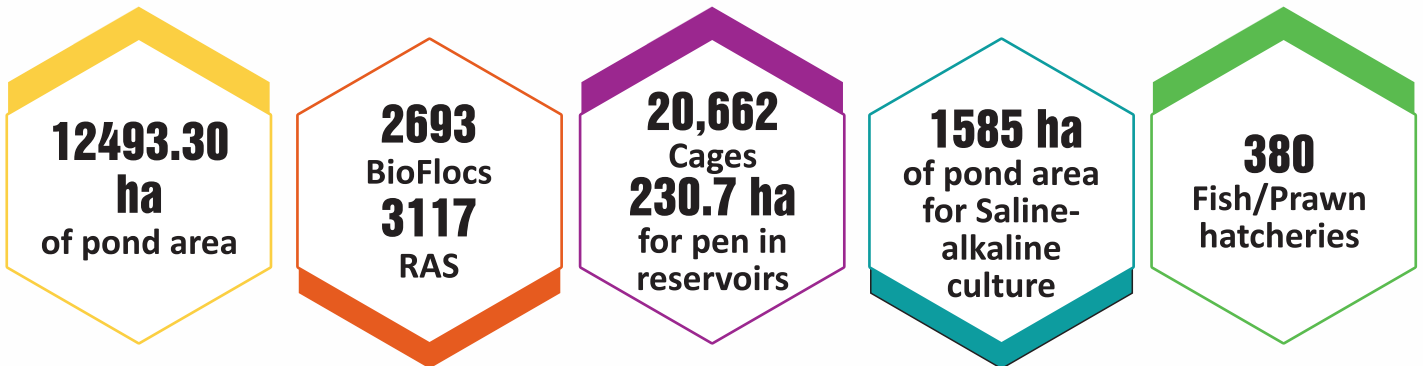
Recognizing the potential and possibilities in the fisheries sector, Government of India has launched a flagship scheme “Pradhan Mantri Matsya Sampada Yojana” with a vision to bring Blue Revolution through sustainable and responsible development of the sector in India with a highest ever annual budget allocation of Rs. 20,050 crores comprising of Central Sector Scheme of Rs. 9,407 crores and Centrally Sponsored Scheme of Rs. 4,880 crores.

**Rs. 8,438 Crores**

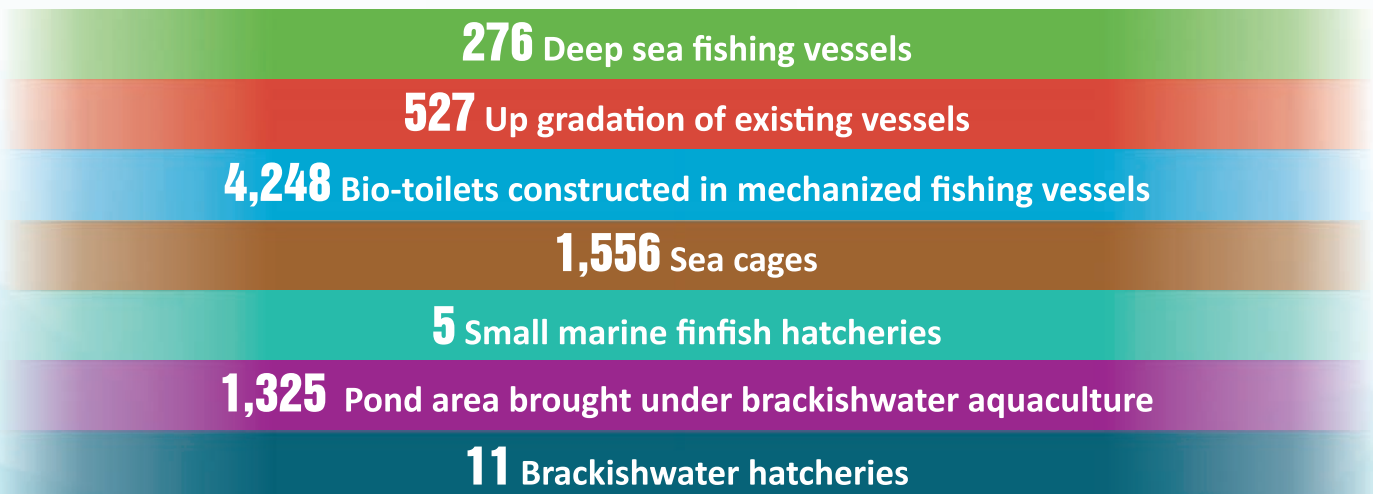
Total Project investment approved during FY 2020-23 (till date)

The following sections indicate the physical units approved till date under PMMSY for the beneficiaries across 34 states/UTs

## DEVELOPMENT OF INLAND FISHERIES



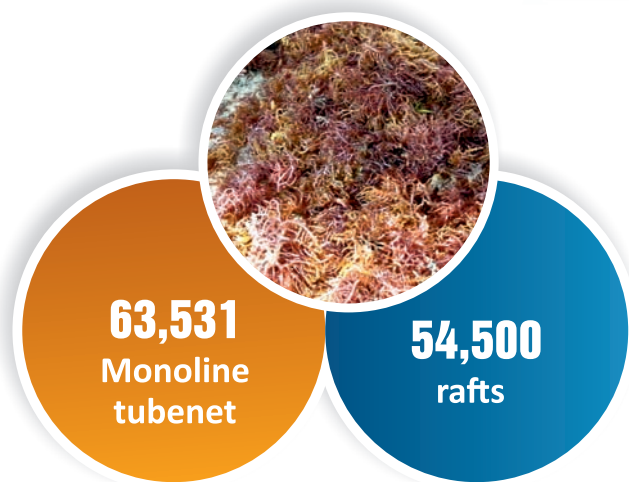
## DEVELOPMENT OF MARINE FISHERIES



## DEVELOPMENT OF COLDWATER FISHERIES



## DEVELOPMENT OF SEAWEED CULTIVATION



*Seaweed Farming by women near  
Tamil Nadu sea coast*

## DEVELOPMENT OF ORNAMENTAL FISHERIES



## FISHERIES INFRASTRUCTURE DEVELOPMENT



**152** Fish feed/mill plants  
**308** ice plant/cold storage sanctioned

**4878** fish transportation facilities

**3,277** fish retail markets (**183**) and fish kiosks including ornamental kiosks (**3094**)

**3640** nos replacement of boats & nets for fisherman

**76** value-added enterprises

## BENEFICIARIES OF PMMSY

Livelihood and nutritional support of **6,77,462** fishers's families for conservation of fisheries resources during fishing ban/lean period and **70** Matsya Seva Kendras for extension & support services



Fishermen and Fish workers



Women



Youth from target group

## AQUATIC HEALTH MANAGEMENT



**13**

Disease diagnostic centre  
and quality testing  
labs approved



**20**

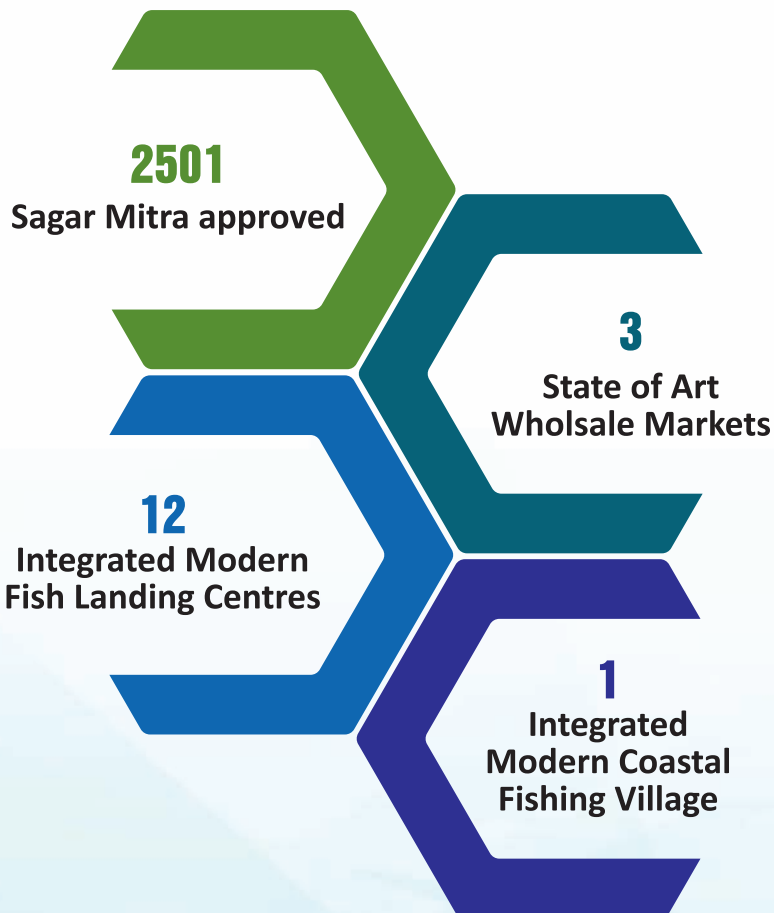
Mobiles centres  
and testing labs approved



**4**

Aquatic referral  
labs have  
been approved

## OTHER IMPORTANT ACTIVITIES



## PMMSY AT A GLANCE

### State/UT-wise details of project costs approved and central funds released under Pradhan Mantri Matsya Sampada Yojana (PMMSY) 2020-22

(Rs. In lakhs)

S.No.	State/UT	Total Project Cost	Central Share	Funds Released
(i)	(ii)	(iii)	(iv)	(v)
1.	Andaman & Nicobar	3,005.55	1,463.48	709.30
2.	Andhra Pradesh	77,436.77	24,470.88	18,659.97
3.	Arunachal Pradesh	4,616.70	2,493.02	1,284.55
4.	Assam	20,406.10	9,851.42	7,816.62
5.	Bihar	27,461.80	8,681.65	4,240.27
6.	Chhattisgarh	21,907.00	6,543.18	6,903.30
7.	Daman & Diu and Dadar & Nagar Haveli	645.60	372.20	186.10
8.	Delhi	533.25	286.08	163.30
9.	Goa	8,558.19	3,723.95	2,242.59
10.	Gujarat	45,289.19	13,552.60	6,623.55
11.	Haryana	15,999.00	4,873.17	2,573.97
12.	Himachal Pradesh	6,950.57	3,305.65	1,812.43
13.	Jammu & Kashmir	5,397.99	2,729.76	5,700.43
14.	Jharkhand	22,549.90	7,314.37	3,125.61
15.	Karnataka	39,519.53	12,169.40	16,162.98
16.	Kerala	29,704.42	10,504.96	8,610.95
17.	Ladakh	744.60	456.60	157.80
18.	Lakshadweep	4,507.58	3,097.83	1,442.92
19.	Madhya Pradesh	32,372.94	9,971.16	7,966.80
20.	Maharashtra	51,113.40	19,127.56	7,700.41
21.	Manipur	3,829.50	1,978.92	1,944.63
22.	Meghalaya	3,574.21	1,993.67	1,611.64
23.	Mizoram	6,405.00	3,604.53	2,553.78
24.	Nagaland	4,850.70	2,813.59	2,162.74
25.	Odisha	52,441.10	18,702.55	11,910.29
26.	Puducherry	7,819.02	3,073.94	2,339.95
27.	Punjab	5,984.72	2,064.29	567.84
28.	Rajasthan	2,964.84	969.85	386.47
29.	Sikkim	2,825.31	1,542.49	555.21
30.	Tamil Nadu	36,135.58	12,622.26	4,974.96
31.	Telangana	14,270.60	4,151.18	5,213.07
32..	Tripura	7,272.00	3,603.89	2,702.02
33.	Uttar Pradesh	59,413.20	19,051.92	14,755.76
34.	Uttarakhand	11,422.60	5,911.02	2,850.06
	<b>Total A</b>	<b>638,378.45</b>	<b>227,073.02</b>	<b>158,612.25</b>
35.	Central Sector Projects	88,427.64	51,472.92	28,274.18
	<b>Total A+B</b>	<b>726,806.09</b>	<b>278,545.94</b>	<b>186,886.43</b>

## RIVER RANCHING – RESTORING BIODIVERSITY OF OUR RIVERINE FISHERIES



*Hon'ble Union minister for Fisheries, Animal Husbandry & Dairying, Shri Parshottam Rupala launched the River Ranching Programme at Brijghat, Garhmukteshwar, UP.*

India is blessed with vast and varied resources possessing river ecological heritage and rich biodiversity. India is one of the major biodiversity countries in the world and occupies 9th position in terms of freshwater mega biodiversity. Biodiversity is important for the sustainable development of the ecosystem and stabilization of overall environmental quality. Rivers possess rich variety of freshwater fish species and other aquatic species which support the commercial fisheries. Biodiversity of the rivers are increasingly threatened by the environmental pollution and human activities, dominating the natural ecosystem and this impact has accelerated an irreversible damage to the ecosystem, biodiversity and the traditional fishery and aquaculture industries.

To facilitate the regular stocking of fingerling of cultivable carps for conserving the aquatic ecosystem and enhance income and livelihood opportunities for communities dependent on these river resources, Government of India has launched the River Ranching program under PMMSY scheme. River ranching programme is aimed to uplift the depleted fish stock and to enhance production of the ranched fish species. As a result of these activities, it is programmed



to improve livelihood of fishers and maintain cleanliness of the river as they feed on organic remnants.

## ACTION INITIATED BY THE DEPARTMENT OF FISHERIES

The Department of Fisheries launched “River ranching programme under PMMSY scheme for augmenting and enhancing the fish production and productivity through expansion, intensification, diversification, and productive utilization of water. River ranching scheme has been incorporated on a pilot basis for a period of two years from FY 2020-2021 to FY 2021-2022. “River ranching programme has been included as a special scheme under Central Sector scheme of Sub - component 6”. NFDB in collaboration with 6 States under Department of Fisheries guidance launched the programme at National Level on 8<sup>th</sup> October 2021.

During FY 2020-21, the scheme has been implemented in three river basins of the country namely Ganga and its tributaries, Brahmaputra & Barak River tributaries and Mahanadi & other rivers, covering 8 States namely Uttar Pradesh, Bihar, Chhattisgarh, West Bengal, Uttarakhand, Odisha, Assam, and Tripura for releasing fish fingerlings.

## NATIONAL LEVEL LAUNCH OF RIVER RANCHING PROGRAMME 2021

During 2020-21 NFDB had sanctioned a total budget of Rs. 2.81 crores and released sum of Rs.140.75 lakh, targeted to ranch 9.761 crores fingerlings to six states namely Uttar Pradesh, Bihar, Chhattisgarh, Uttarakhand, Odisha and Tripura. Under the guidance of Department of Fisheries, Phase-I programme at a national level was launched in 5 states namely Uttar Pradesh, Chhattisgarh, Tripura, Odisha and Uttarakhand 8th October 2021 and in Bihar on 27th Oct 2021.



The Hon’ble Union minister for Fisheries, Animal Husbandry & Dairying, Shri Parshottam Rupala launched the River Ranching Programme at Brijghat, Garhmukteshwar, Uttar Pradesh on

8th October, 2021 in the presence of other dignitaries Dr. Sanjeev Kumar Balyan, Hon'ble Minister of State of Fisheries, Animal Husbandry and Dairying, Shri Laxmi Narayan Chuadhary, Hon'ble Minister of Fisheries, Animal Husbandry and Dairying, Govt. of UP, Shri Rajendra Agarwal, Hon'ble Member of Parliament, Lok Sabha Seat, Meerut, UP, Shri Kamal Singh Malik, Hon'ble MLA, Garhmukteshwar, UP, Shri Jatindra Nath Swain, Secretary, Department of Fisheries (GoI), Dr. C Suvarna, Chief Executive, NFDB (Hyderabad), Shri Sagar Mehra, Joint Secretary (Inland Fisheries), Department of Fisheries (GoI), and other dignitaries from NFDB, Department of Fisheries (GoI) and local bodies.

At the same time, other four states namely, Uttarakhand, Odisha, Tripura and Chhattisgarh parallel participated in the River Ranching program.

## UTTARAKHAND

In Uttarakhand, a total of 1 lakh fingerlings were ranched at Chandi Ghat, Ganga River, Haridwar and the launch event was graced by Shri Nepal Singh Ex-State level minister, Shri. Bipin Kumar Garg, Chairman BJP Jabhedra, Haridwar and Shri Saurabh Rana, Representative, Namami Gange. Approximately 150 people participated in the River Ranching program.



*River ranching at Chandi Ghat, Ganga River, Haridwar*



## TRIPURA

In Tripura, a total of 1.85 lakh fingerlings were ranched at Khowai River (Teliamura), Gumti River, (Tripura), Dhalai River (Kamalpur) and Deo River (Dashamighat) by Smt. Jamuna Das, Chairperson, Shri Biplab Ghosh, MLA, Matabari Assembly, Sri Sujit Biswas, Chairman, Salema Panchayat Constituency and Smt. Happy Das, Chairperson, Kumarghat Panchayt Samiti respectively along with other dignitaries. A total of 218 participants attended the program.

## ODISHA

Around 1.5 lakh fingerlings were ranched at Mundali (Cuttack) in the river ranching program launched by Sri Bijaya Kumar Khandayataray, ADM, Ambar Kumar, PD, DRDA and other dignitaries. Approximately 102 participants attended the program in Odisha.

## CHHATTISGARH

Approximately 1.5 lakh fingerlings have been ranched in Miounee Bairaj, Mahanadi by Smt. Sakshi Banjare, Zilla Panchayat Member and other dignitaries. About 100 people attended the program in Chhattisgarh.

By the end of October 2021, 76.91 lakh fingerlings have been ranched and balance 20.25 lakh fingerlings have been sanctioned for river ranching programme in Bihar for the 2nd phase.



# Celebration of 22nd National Fish Farmers' Day BY DEPARTMENT OF FISHERIES, MINISTRY OF FISHERIES, ANIMAL HUSBANDRY AND DAIRYING, 10 JULY 2022

The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying in association with National Fisheries Development Board (NFDB) celebrated National Fish Farmers' Day on 10th of July 2022 through virtual mode. The event emphasized on the importance of providing institutional credit facilities to the small-hold fish farmers and entrepreneurs.



Dr. Sanjeev Kumar Balyan, Minister of State, Fisheries, Animal Husbandry & Dairying, Dr. L Murugan, Minister of State, Fisheries, Animal Husbandry & Dairying and Information and Broadcasting, Shri Jatindra Nath Swain, Secretary, Department of Fisheries, Dr. Jujjavarapu Balaji, Joint Secretary (Marine Fisheries), Shri Sagar Mehra, Joint Secretary (Inland Fisheries), Dr. C Suvarna, Chief Executive, NFDB, Dr. Joykrushna Jena, Dy Director General, Indian Council of Agricultural Research, Shri Yogendra Shelkey, Dy General Manager, State Bank of India and other senior officials graced the occasion. More than 1000 fish farmers, fishers, entrepreneurs, scientists and other associated with fisheries value-chain attended the event.

Dr. C Suvarna, Chief Executive, NFDB acknowledged the contribution of fish farmers in making fisheries a sunrise sector. She also mentioned the efforts taken by the Government of India to transform the sector through introduction of several beneficial schemes. Dy Director General, ICAR mentioned about the crucial role played by ICAR through its research and development work in increasing the performance of the sector. Shri Sagar Mehra, Joint Secretary, Inland Fisheries shared an overview of the Indian fisheries sector and explained about various tenets of Pradhan Mantri Matsya Sampada Yojana (PMMSY) and its significant role in helping the small and artisanal fish farmers in increasing their production and income. Acknowledging the importance of institutional credit facilities and financial inclusion of small and marginal fish farmers, he mentioned various benefits and avenues to avail the entitlements under the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) as well as the Kisan Credit

Card (KCC) facilities. Apart from that, he also briefly shared the welfare measures taken by the Government of India for the fish farmers through the group accidental benefits, financial assistance during the fishing ban/lean period and the special financial subsidies being offered to



the women, SC/ST beneficiaries towards promoting inclusive development in fisheries sector.

Dr. Jujavarapu Balaji, Joint Secretary, Marine Fisheries shared the insights from the recently signed agreement at the WTO, in Geneva, Switzerland. Shri Jatindra Nath Swain, Secretary, Department of Fisheries paid his tribute to Dr. Hiralal Chaudhary and Dr. Alikunhi for their significant contribution in the Indian Fisheries sector. He emphasized on the sectoral growth and discussed how infusion of advanced technology is important for increasing production and productivity. Shri Jatindra Nath Swain highlighted the need to focus on marketing, management of aquatic diseases, cost-effective quality seed, fish feed, remunerative price to fish farmers and availability of skilled workforce for bringing in holistic development in the sector.

Dr. Sanjeev Kumar Balyan, Minister of State for Fisheries, Animal Husbandry & Dairying acknowledged the fish farmers for their efforts and keeping in view the conducive environment offered encouraged others to come forward to take up employment or start businesses in the fisheries sector. While Dr. L Murugan, Minister of State for Information & Broadcasting and Fisheries Animal Husbandry & Dairying, extended his warm greetings to the farmers and also shared the vision of the Hon'ble Prime Minister Shri Narendra Modi for doubling fish farmers' income and congratulated the aquaculture farmers for their contribution in the sector under Aatmanirbhar Bharat Package.

Shri Yogendra Shelkey, Dy General Manager, State Bank of India encouraged the fisher folks to come forward and be a part of the banking system instead of taking loans from private money lenders. To promote financial inclusion in the fisheries and aquaculture sector, NFDB signed a Memorandum of Understanding (MoU) with State Bank of India on the occasion. Entrepreneurs and fish farmers also shared their impactful stories of successful ventures and thanked the Department of Fisheries and NFDB for extending financial support and sharing technical information.

# THE GIFT THAT KEEPS ON GIVING

Tilapia is considered to be one of the main farmed fish species throughout the world. Tilapia commonly known as the “Aquatic Chicken” is one of the most popular seafood across the world with a growing global market of 11 to 12% per annum. Tilapia is a great source of high protein, minerals and vitamins and currently, it is the third most important fish in aquaculture. Due to its high stocking density, resistance to diseases and short harvest time of about 6 months -Tilapia has become a major species for diversification in aquaculture and reduces dependency on few species for fish rearing.

Genetically Improved Farmed Tilapia (GIFT) aims to develop a faster-growing strain of Nile Tilapia (*Oreochromis niloticus*) and better survival rate with better fillet yield suitable for both small-scale and commercial aquaculture. The production of a high yielding improved strain of Tilapia is expected to bring about notable economic benefit for the country through exports.



*GIFT (Genetically Improved Farmed Tilapia)  
at RGCA Tilapia Project*

## BACKGROUND

WorldFish initiated research work to improve growth rate of Tilapia in late 1970s. In 1987, WorldFish collaborate with experts of Asia and Africa and other international experts to review the status of Tilapia genetic resources. Thus, GIFT was developed by the scientist at WorldFish Centre through selective breeding of several strain of Nile Tilapia. The GIFT strain of Nile Tilapia grows rapidly and survives well and considerably increases the production.

## ADVANTAGES OF TILAPIA

Tilapia is the most common fish species and farmed in more than 85 countries. Due to its high protein content, rapid growth rate, ability to survive in adverse natural environment and high immunity Tilapia is one of the most important species for the selective breeding. The growth rate of GIFT is noticeably better than other farmed strains. It can also be grown in various farming systems and is omnivorous, with very less animal protein requirement. Tilapia is most suitable for culture in tropical zones as the temperatures are highly suitable for fast growth and can tolerate temperatures of 82-86°C. It has a naturally high tolerance to survival in polluted water and can be grown in both freshwater and brackish environment. They are inexpensive and easy for small-scale farmers to grow for food, nutrition and employment benefits. GIFT is currently being successfully produced and farmed in our country and has vast potential for producing to be produced and promoted amongst the fish farmers.



*GIFT Tilapia form grow-out culture*



*Tilapia cultured at RGCA*

## STATUS OF GENETICALLY IMPROVED FARMED TILAPIA (GIFT) IN INDIA

Tilapia is emerging and is being promoted as an important species for aquaculture in India because of its fast-growing rate and other benefits that prove to be conducive for enhancing fish production and consumption.

Rajiv Gandhi Centre for Aquaculture (RGCA) has launched a project “Tilapia (GIFT) Project” at Manikonda village in Krishna District of Andhra Pradesh during 2008 to conduct selective breeding programme of GIFT and produce all male quality seeds and broodstock.

In collaboration with WorldFish Centre, MPEDA-RGCA successfully implemented the GIFT selective breeding programme and has been effective in conducting pedigreed breeding programme of GIFT in Indian conditions. It also provides technical assistance for establishment of GIFT satellite breeding centre and bio-secured tilapia farms. Around 38.5 million all male seeds and 27,428 nos of broodstock fry were supplied to 525 beneficiaries. RGCA also conducted hands-on training programmes that benefitted around 700 entrepreneurs.



*Trainees at Tilapia pond for Hands-on Practice*



*RGCA's GIFT hatchery facility*



*Hapas kept at GIFT Tilapia Pond*

# AQUATIC ANIMAL HEALTH & QUALITY TESTING LABORATORY (AAH&QTL) - A VISION FOR A MORE SUSTAINABLE, PRODUCTIVE, EQUITABLE AND IMPACTFUL SECTOR

The Aquatic Animal Health & Quality Testing Laboratory (AAH&QTL) was established in 2019 by NFDB under Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying (GoI) on 7th September, 2019. AAH & QTL is soundly equipped with contemporary, advanced and comprehensive facilities to offer services including disease diagnostic and residues testing in crustaceans, fin-fishes & other aquatic animals meant for national and international trade. Further, it hosts facilities for water, soil and feed quality analysis.



## MISSION

To develop and maintain up-to-date aquatic animal health management strategy for supporting sustainable development and management of the aquaculture sector, meeting growing consumer demands for aquatic foods and products that are high in quality, safe and are produced in an environmentally responsible manner with maximum opportunity for profitability in all stages of the aquaculture product chain.

## OBJECTIVE

- Molecular Disease Diagnostics Division envisions screening the aquatic animal pathogens and co-ordinate with the National Surveillance Program for monitoring and screening of aquaculture related fin-fish & shellfish diseases. AAH & QTL provides technical expertise to farmers in the aspects of disease diagnostics and quality control.
- Microbiological assessment of samples which include fin fish/ shellfish, water, feed and soil thus enhancing the quality output of the aquaculture products. Implementing/ coordinating/promotion of awareness on Best Management Practices and Standard Operating Procedures for controlling the emerging and common fin fish/shellfish diseases in aquaculture sector.
- Residual analytical lab provides monitoring of fin fish/shellfish, seed and feed samples drawn from aqua culture farms, feed mills, hatcheries and processing establishments.
- Feed, water and soil testing division offers analysis of wide range of parameters to the farmers and stakeholders in turn improving the quality of the aquaculture products.
- To rapidly detect new and exotic infectious disease in aquatic animal animals.

AAH & QTL is offering training to enhance skill development through hands-on-approach. The lab is operational with well-equipped for gene sequencing, quantification of heavy metals and profiling of minerals and nutrients.



A total of 18 programmes were proposed during the year 2021-22, of which AAH & QTL conducted 10 programmes to 61 trainees (40 students and 21 private employees). The training calendar for year 2022-23, is available on website (AAH & QTL Calendar 2022-23.pdf (nfd.gov.in)) that focuses on Hands-on training on Aqua feed analysis, Polymerase Chain Reaction (PCR) and its applications, microbial culture techniques, species identification by Sanger sequencing method among others.

## STATE/UT-WISE DETAILS OF THE ACHIEVEMENT OF AQUATIC HEALTH MANAGEMENT COMPONENTS/ACTIVITIES

Approved Units under Establishment of Disease diagnostic and Testing labs (Rs. In lakhs)				
S.No.	States	Total of 2020-22		
		Physical (No.)	Project Cost	GoI Share
1.	Andhra Pradesh	2	50	15
2.	Assam	1	25	9
3.	Delhi	1	25	15
4.	Madhya Pradesh	2	50	12
5.	Maharashtra	3	75	18
6.	Odisha	4	100	30
	<b>Total</b>	<b>13</b>	<b>325</b>	<b>99</b>

Approved units under Aquatic Referral Labs for Quality Testing and Disease Diagnostics (Rs. In lakhs)				
S.No.	States	Total of 2020-22		
		Physical (No.)	Project Cost	GoI Share
1.	Andhra Pradesh	8	280	79.8
2.	Maharashtra	1	35	8.4
3.	Odisha	4	140	42
4.	Punjab	1	35	8.4
5.	Uttar Pradesh	6	210	63
	<b>Total</b>	<b>20</b>	<b>700</b>	<b>201.6</b>

Approved units under Aquatic Referral Labs for Quality Testing and Disease Diagnostics (Rs. In lakhs)				
S.No.	States	Total of 2020-22		
		Physical (No.)	Project Cost	GoI Share
1.	Bihar	2	1000	600
2.	Gujarat	1	140.99	84.43
3.	Kerala	1	975	585
	<b>Total</b>	<b>4</b>	<b>2115.99</b>	<b>1269.43</b>

# SAGAR PARIKRAMA

Hon'ble Union Fisheries Minister **Shri Parshottam Rupala**

Inaugurates



## 'Sagar Parikrama'



The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying (GoI) has launched 'Sagar Parikrama' program on the occasion of 75th Azadi Ka Amrit Mahotsav. Sagar Parikrama program is being organized through a pre-decided sea route covering coastal States/UTs in a phased manner. Gujarat marks as the first state to be a part of the Parikrama initiative.

'Sagar Parikrama' was inaugurated on 5th March 2022 in Gujarat by Hon'ble Union Minister for Fisheries, Animal Husbandry & Dairying, Shri Parshottam Rupala. The Phase I programme of 'Sagar Parikrama' has started on 5th March 2022 from Mandvi and ended on 6th March 2022 at Porbandar, Gujarat.

'Sagar Parikrama' aims at facilitating interaction with fishermen, coastal communities and stakeholders for disseminating information of various fisheries related schemes and programs being implemented by GoI, promoting responsible fisheries with focus on sustainable balance between the utilization of marine fisheries resources for food security of nation and livelihoods of coastal fisher communities. The interaction programs being organized during the event aims to resolve the issues of the fishers and other stakeholders and facilitate their economic upliftment through various fisheries schemes being implemented by the Government of India. In addition to the schemes and programs of fisheries sector, the 'Sagar Parikrama' program envisages creation of awareness on various other schemes and programs of the Government of India. The fishermen, fisher communities and stakeholders in the coastal areas are likely to be benefitted with awareness of various beneficiary-oriented schemes and programs being implemented by the Government and showcasing them the best practices that may be adopted.

# TECHNICAL ASPECTS OF BIO-FLOC TECHNOLOGY

Bio-floc Technology (BFT) is an environmental friendly aquaculture technique based on in situ microorganism production. Bio-floc technology is considered the new 'blue revolution' since the nutrients can be continuously recycled and reused in the culture tank with minimum water loss. In BFT, microbial community is rapidly utilize dissolved nitrogen leached from shrimp/fish feces and uneaten food and convert it into microbial protein, thus maintaining water quality.

## Ideal parameters for Bio-floc culture

S.No.	Parameters	Ranges
1.	Temperature	28-30°C
2.	Dissolved Oxygen	>5 ppm
3.	pH	7-8.5
4.	Alkalinity	100-150 ppm
5.	Total Suspended Particle (TSS)	250-450 ppm
6.	Turbidity	35-40 cm
7.	Total Ammonia Nitrogen	<1.5 ppm
8.	Nitrite Nitrogen conc.	<2 ppm
9.	Nitrate Nitrogen conc.	<10 ppm
10.	Aeration	For shrimp – 25-35 hp/ha For Tilapia – 100-150 hp/ha

## BIO-FLOC CULTURE UNIT



Waste from food, feces and urine conc. increased ammonia content that affects water quality in fish culture.

Ammonia  
 $\text{NH}_3\text{-N}$

Nitrosomonas &  
Nitrosococcus

Nitrite  
 $\text{NO}_2\text{-N}$

Nitrobacter  
& Nitrospira

Nitrate  
 $\text{NO}_3\text{-N}$

Pseudomonas

Nitrogen  
gas  $\text{N}_2$

# INTEGRATED MODERN COASTAL FISHING VILLAGES (IMCFV) - ANOTHER DIMENSION OF DEVELOPMENT

Marine fisheries are an important source of food, nutrition, employment, income and livelihoods for over 4 million coastal fishers in India, which at present holds the 6th position in global marine capture fish production. India's marine sector comprises of 3477 marine fishing villages in 9 maritime states and 4 Union Territories (UTs). The 3477 Indian marine fishing villages comprises of 91.6% traditional fishermen, 66% fishermen have primary or higher-level of education and 80.7% of active fishermen engage in full time fishing.



It is also estimated that 93.8% coastal villages are electrified and 69.7% fishermen have pucca house however 67.3% of total number of families in coastal fishing village are still Below Poverty Line (BPL) and are concentrated in the states of Tamil Nadu and Andhra Pradesh. Challenges continue to persist as only 51.6% fishermen households' have tap water supply, 78.7% lack market facilities, 91.7% lack auction sheds. Therefore, it is essential that the coastal villages be developed whilst focusing on holistic development of the fishermen and fisher communities and to strengthen the local fisheries resources for amplifying the economic benefits in a sustainable and responsible manner, create opportunities for the rural fishers to transform into a modern and progressive community.

Through the component of Integrated Modern Coastal Fishing villages (IMCFV) under PMMSY, the Government of India is envisaging to take a big step towards the FAO – Blue Growth Initiative (BGI) that aims to maximize economic and social benefits to coastal fishers while minimizing environmental degradation through sustainable fishing practices. Further, the objectives of IMCFV under PMMSY are also closely aligned with the UN Sustainable Development Goals (SDG) 2030.

PMMSY envisages that 100 coastal fishing villages, out of the total 3477 fishing villages, will be selected and developed as integrated modern coastal fishing villages to leverage Blue economy/Blue growth. The initiative aims at maximizing economic and social benefits to coastal fishers while minimizing environmental degradation through sustainable fishing practices.

## THE PRIMARY OBJECTIVES OF DEVELOPING IMCFV HAVE BEEN ENVISIONED TO

- Promote sustainable and eco-friendly fishing practices, while sustaining traditional fishing methods
- Promote conservation and management of fisheries resources through community participation
- Provide sustainable livelihoods to coastal fisher communities, especially for youth and women
- Modernize the local fisheries value chain for economic diversification, improving quality, developing market linkages and creating synergies between various value chain stakeholders
- Develop modern and disaster resilient infrastructure to promote the economic activities and ensure safety and security of fishermen
- Foster suitable convergence wherever possible across sectors including rural development, food processing, eco-tourism to amplify the economic outcomes

## ASSISTANCE PROVIDED UNDER THE FLAGSHIP OF PMMSY

Development of IMCFV is a Non-Beneficiary Oriented sub-component under the Centrally Sponsored Scheme (CSS) Component of PMMSY and it is implemented in a participatory mode by sharing the project cost as per the funding pattern stated below:

- a) Coastal States : 60% Central share and 40% State share
- b) Union Territories (with legislature and without legislature): 100% Central share

Under PMMSY, a target for development of around 100 coastal fishing villages into integrated modern fishing villages has been envisaged under PMMSY with a unit cost of Rs. 750 Crores.

Unit cost allocated for IMCFV as per Operational Guidelines of PMMSY and suggested activities

Component	Unit Cost (Rs. in Lakhs)	Central Financial Assistance (Rs. in Lakhs)	
		Coastal States	UTs
Integrated Modern Coastal Fishing Villages	750	450	750

# “WOMEN AS CATALYST FOR CHANGE”

## A WEBINAR ON NARROWING GENDER GAP IN FI-SHE-RIES SECTOR

### A National Webinar Conducted by Department of Fisheries (DoF) on 8 August 2022

Women constitute about half of our country’s population and play an equally important role in building our nation. Women play crucial role in small-scale and artisanal fisheries sector. It is estimated that about 1.50 million women are engaged in fisheries activities. Women in small-scale industries are engaged in managing aquatic resources at the community level. Women in indigenous and local coastal communities have extensive local and traditional ecological knowledge, which contributes towards sustainable use and conservation of marine and coastal ecosystems.

Women face many difficulties in securing their rights as workers because their role is often unrecognized. They have limited or no access to social security, capital and credit and face hardships in securing land rights and access to fishery resources. The unsafe, unhygienic and unfair working conditions do not contribute to empowering and skilling women in the sector. In most places, women in post-harvesting activities are constantly struggling for basic facilities at landing centers and markets. Further, their role in harvesting have been limited to collection, hand-picking and fishing from smaller water bodies while employment opportunities are generally seasonal in nature and with poor wages. There is also a sizeable difference in the income earned by men and women with income for women being quite low.

It has thus been the endeavour of Department of Fisheries to focus on providing benefits to women engaged in fisheries and address the problems faced by women in the sector. In view of that Department of Fisheries hosted a webinar “Women as catalyst for change” that focused on the role of women in the fisheries sector and understand critical issues that need to be addressed

### HIGHLIGHTS OF THE WEBINAR

**Dr. V. Kripa, Member Secretary, Coastal Aquaculture Authority, Chennai** spoke about the crucial role played by women throughout the fish value chain and work as labour in both commercial and artisanal fisheries and to formally recognise the central role played by women, therefore recommends coherence within government policy to ensure that the fisheries sector and women’s activities therein prioritized and to improve their efficiency and income through policy and technology interventions. She also highlighted about the impact of Covid-19 on women in fisheries and concluded her lecture by addressing the gender equality in the sector. She added gender perceptions are deeply rooted and vary widely both within and between the culture and mainstream gender inclusive policies must be implemented to increase the role, well-being and working condition of women in the sector, including at decision making levels.

**Dr. (Smt.) Suvarna Chandrappagri, IFS, Chief Executive (CE), National Fisheries Development Board (NFDB)** spoke about the current scenarios of women in the Indian fisheries sector. It has been estimated that around 5,00,000 women are involved in fisheries and 44% fisher folk are

women. She highlighted that women in India are mainly present in small scale farming and not in large scale industry while a significant number of females are involved in mariculture and aquaculture in Japan. While women have extensive indigenous knowledge in fish farming but women are not proactive and have very less control in decision making or in any policy matters.

**Ms Veenu Jaichand, Partner, Skill Development and Entrepreneurship, Ernst & Young** discussed about the challenges for women in the sector, overall lack of skills and training opportunities, limited access to training, very few job roles and inadequate linkages to support credit and marketing linkage. She recommended that it is essential to empower women by providing capacity building and skilling and training opportunities across the fisheries value chain.

**Dr. Sriparna Baruah, Head, Indian Institute of Entrepreneurship (IIE), Guwahati, Assam** spoke about the women working in a cluster format and Good Aquaculture Practices in the handloom industry in Assam. She highlighted about technology interventions and requirement of holistic intervention for narrowing the gender gap in fisheries sector.

## FEW WOMEN ENTREPRENEURS IN FISHERIES SECTOR

### **Mrs. Geetha**

Mrs. Geetha with a ray of hope of becoming successful fisheries entrepreneur, joined the training, she gained confidence and invested Rs. 25,000 for starting ornamental fish enterprises business in Kanyakumari. She will surely be getting a turnover of around Rs. 1,00,000.

### **Mrs. Mahalakshmi**

She joined training in fisheries in Madurai and after gaining skills, invested Rs. 3.0 lakh for starting fish production business in pond. She has employed 4 employees.

### **Ms. Anitha**

Ms. Anitha B.A, B.Ed. from Mayiladuthurai, Tamil Nadu shows her sincere gratitude to NFDB for showing her a way to lead a sustainable livelihood. After attending the training, she decided to do the marketing of the fish and after she took decision for do the fish culture and started to sell fish in the market and many customers are buying the fish. She got a good income from the business. She is earning Rs. 9000 per month.



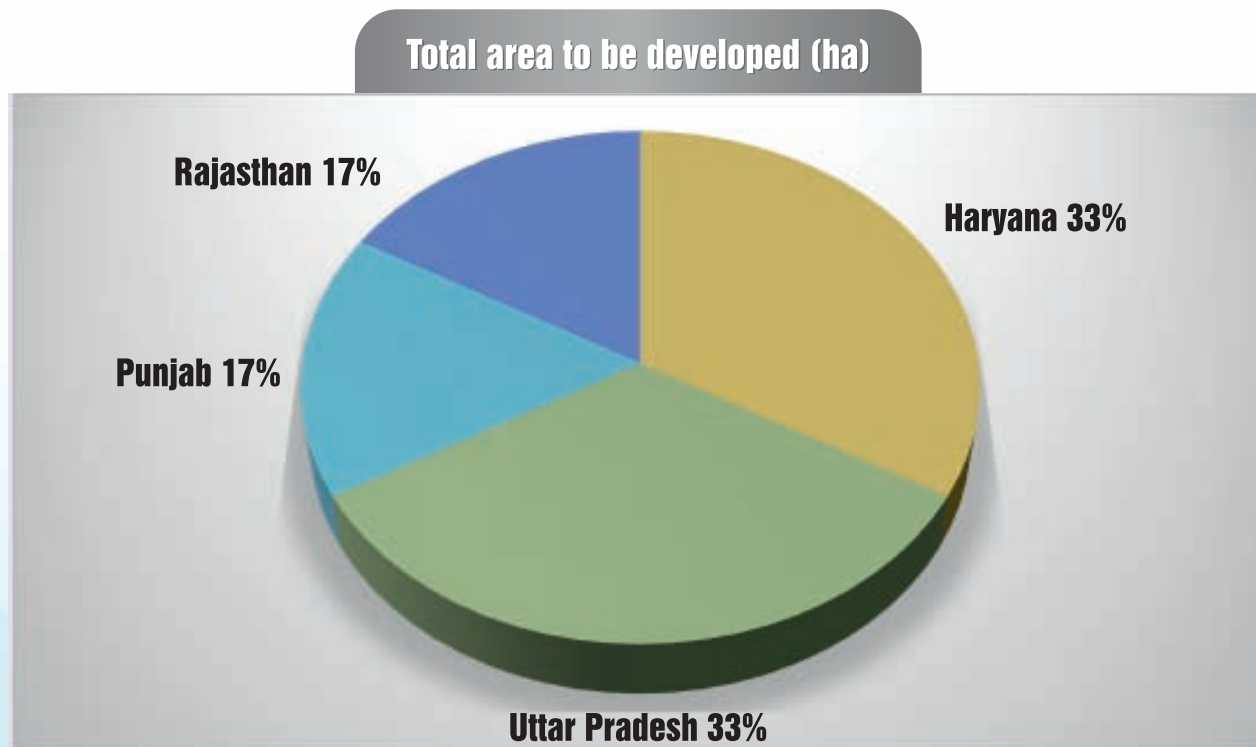
# SALINE WATER AQUACULTURE- TOWARDS PROSPERITY IN FISHERY SECTOR

**Rs. 526 Crores investement planned for productive utilization of Saline water Aquaculture during 2020-21 to 2024-25.**

Saline water aquaculture offers huge potential as the country has around 1.42 million Ha of brackish/saline area, of which only ~13% is utilized. With the aim to harness its potential, the Department of Fisheries has focused on increasing current fish production of 0.7 million MT to 1.10 million MT by FY 2024-25. With a goal to achieve a production of 15 lakh MT from a total area of 45 thousand Ha of brackish water area by FY 2024-25 along with enhancing current productivity from ~4 ton/Ha to 8 ton/Ha. This is expected to entail utilization of 3.9 million Ha of estuaries and 0.5 million Ha coastal mangrove areas available in the country for both finfish and shellfish culture.

Additionally, Saline water aquaculture is being promoted to transform 'Waste land to Wetlands' by increasing aquaculture area from 13 thousand Ha to 58 thousand Ha by FY 2024-25. This is to boost the current annual production of 4,331 ton to 1.04 lakh ton while boosting current productivity from ~6 ton/Ha to 8 ton/Ha. States of Haryana, Punjab, Rajasthan and Uttar Pradesh that have high soil salinity are thus being promoted and in FY 2020-21, an investment of Rs. 3058.56 lakhs was done in four inland States.

## Potential States for Saline water Aquaculture





## Approved Units under Establishment of Disease diagnostic and testing labs (Rs. In lakhs)

S.No.	States	Total of 2020-22		
		Physical (No.)	Project Cost	Gol Share
1	Haryana	1050	8400	2534.4
2	Karnataka	65	520	157.44
3	Maharashtra	19	152	41.28
4	Punjab	273	1984	457.92
5	Rajasthan	110	760	250.56
6	Uttar Pradesh	68	544	147.84
	<b>Total</b>	<b>1585</b>	<b>12360</b>	<b>3589.44</b>

S.No.	Components	Unit cost (Rs. In lakhs)	Government Assistance (shared between Centre and state @60:40)	
			General (40%)	SC/ST/Women (60%)
1.	Construction of new ponds for saline areas (Ha)	8.00	3.20	4.80
2.	Inputs for saline water aquaculture	6.00	2.40	3.60
3.	Construction of bio-floc pond for Saline areas including inputs of Rs. 8 lakhs/hectare	18.00	7.2	10.8
4.	Refrigerated vehicles	25.00	10.00	15.00
5.	Insulated vehicles	20.00	8.00	12.00
6.	Three-wheeler with ice box	3.00	1.20	1.80
7.	Live fish vending centers	20.00	8.00	12.00
8.	Fish value Add Enterprises units	50.00	20.00	30.00
9.	Disease diagnostic and quality testing labs	25.00	10.00	15.00
10.	Disease diagnostic and quality testing Mobile labs/clinics	35.00	14.00	21.00
11.	Cold Storage	40.00	16.00	24.00
12.	Fish kiosks	10.00	4.00	6.00
13.	Motor cycle with Ice box	0.75	0.30	0.45

# Department of Fisheries launches Culinary Coffee Table Book 'Fish & Seafood- a collection of 75 gourmet recipes'

Hon'ble Union Minister For Fisheries and Animal Husbandry & Dairying Shri Parshottam Rupala launched a unique coffee table book titled 'Fish & Sea Food- a collection of 75 gourmet recipes' on 10, August 2022. In an effort to boost the domestic consumption of fish and sea food, along with popularizing the local fish species, the Department of Fisheries under the Ministry of Fisheries, Animal husbandry & Dairying compiled traditional fish recipes from different States/UTs. The book was launched in August in the presence of both the Minister of States (MoS) Dr L. Murugan and Dr. Sanjeev Kumar Balyan, Shri Jatindra Nath Swain, Secretary, Department of Fisheries, Shri Sagar Mehra, Joint Secretary (Inland fisheries), Dr. Jujjavarapu Balaji, Joint Secretary (Marine Fisheries), Special Guest Celebrity chef Shri Kunal Kapur, other Department officials, Media personnel and PMC to PMMSY at Department of Fisheries (Gol).



The fish recipe book is a highlight of the diversity of fish species available within domestic water bodies and the fish culinary heritage of India.

# KISAN CREDIT CARD (KCC)



The Government of India, in the year 2018-19, extended Kisan Credit Card (KCC) facility to fisheries and animal husbandry farmers to help them to meet their working capital requirements. Fishers, fish farmers (individual & groups/partners/ share cropper/tenant farmers), Self Help Groups, Joint Liability Groups & women groups are eligible for availing the KCC facilities.

The fisheries related working capital components covered under KCC include recurring costs towards seed, feed, organic and inorganic fertilizer, lime and other soil conditioners, harvesting and marketing charges, fuel/electricity charges, labor and lease rent. For capture fisheries, the working capital may include cost of fuel, ice, labouring charges, mooring/landing charges etc.



In the KCC scheme @7% is the lending rate to farmers including @2% interest subvention per annum by Govt. of India. Also, another @3% per annum is provided in case of prompt repayment as an additional incentive as per the existing guidelines.

This implies that the farmers repaying promptly as above would get a loan @ 4% per annum effectively for loan amount up to Rs 2 lakhs.

The Department of Fisheries, Gol had been pursuing with all the State Governments/UTs and State Level Bankers Committee (SLBC) to sensitize and disseminate information amongst the fishers and fish farmers about KCC through special camps and other modes of communications. The Hon'ble Finance Minister announced Rs. 2 lakh crores concessional credit boost to Rs. 2.5 crores farmers including fishers & fish farmers under Kisan Credit Card (KCC) Scheme as a part of ATMANIRBHAR BHARAT PACKAGE. Thus, Department of Fisheries in collaboration with all the States/UTs to took up a special drive from 10th June, 2020 to 10th August, 2020 to saturate the

issuance of Kisan Credit Card (KCC) to fishers and fish farmers. Followed by this, a "Nationwide Fishery KCC campaign" to ensure the covering of all the stakeholders was launched on 15th, November 2021 by Hon'ble Minister For Fisheries, Animal Husbandry and Dairying and the period of campaign was from 15th November 2021 to 15th February 2022, further extended up to 31st July 2022.

Department of Fisheries 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.

As a follow up action, a review meeting held on 7th July 2022 under the Chairmanship of the Hon'ble Minister of Finance (Smt. Nirmala Sitharaman), to review Operational & Governance reforms in RRBs and performance of Kisan Credit Card (KCC) scheme for Animal Husbandry, Dairying and Fisheries. The Finance Minister (FM) directed banks for ensuring time-bound disposal of pending KCC applications. FM also instructed banks to hold camps for saturating all those engaged in cattle rearing and fishing with KCC. Smt. Sitharaman also instructed the officials to hold periodic review of the performance of the KCC scheme with all stakeholders so that the scheme benefits can reach to the maximum number of eligible beneficiaries.

As per the data provided by the DFS total of 88,538 numbers of KCCs have been sanctioned for Fisheries Sector as on August 2022.

<b>Status of Progress of Issuance of KCC for Fisheries Sector as on August 2022</b>				
<b>S.No.</b>	<b>States Name</b>	<b>Number of Applications</b>		
		<b>Received</b>	<b>Sanctioned</b>	<b>Pending</b>
1	ANDAMAN & NICOBAR ISLANDS	3,625	3,314	32
2	ANDHRA PRADESH	19,961	10,058	161
3	ARUNACHAL PRADESH	147	11	-
4	ASSAM	13,089	4,086	130
5	BIHAR	3,471	637	419
6	CHANDIGARH	-	-	-
7	CHHATTISGARH	4,048	1,038	543
8	DADRA AND NAGAR HAVELI	2	2	-
9	DAMAN AND DIU	318	307	2
10	DELHI	32	-	18
11	GOA	369	342	-
12	GUJARAT	18,384	8,907	163
13	HARYANA	249	118	1
14	HIMACHAL PRADESH	761	641	19
15	JAMMU AND KASHMIR	1,077	735	27
16	JHARKHAND	9,217	1,951	115
17	KARNATAKA	4,267	2,413	53
18	KERALA	6,367	4,824	104

## Status of Progress of Issuance of KCC for Fisheries Sector as on August 2022

S.No.	States Name	Number of Applications		
		Received	Sanctioned	Pending
19	LADAKH	130	130	-
20	LAKSHADWEEP	2	2	-
21	MADHYA PRADESH	28,376	10,132	2,245
22	MAHARASHTRA	15,999	7,630	146
23	MANIPUR	270	167	3
24	MEGHALAYA	176	157	54
25	MIZORAM	165	41	-
26	NAGALAND	190	3	-
27	ODISHA	6,521	1,238	338
28	PUDUCHERRY UT	714	540	-
29	PUNJAB	560	174	20
30	RAJASTHAN	2,870	2,049	28
31	SIKKIM	218	41	-
32	TAMIL NADU	28,225	8,224	396
33	TELANGANA	22,215	3,644	259
34	TRIPURA	3,342	2,426	458
35	UTTAR PRADESH	11,354	7,257	732
36	UTTARAKHAND	418	279	25
37	WEST BENGAL	6,822	5,020	121
	<b>Total</b>	<b>2,13,951</b>	<b>88,538</b>	<b>6,612</b>

Source : Department of Financial Services

# FISHERIES AND AQUACULTURE INFRASTRUCTURE DEVELOPMENT FUND (FIDF)

The Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying (GoI) created the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) during FY 2018-2019 with a total fund size of Rs. 7,522.48 Crores, out of which total project cost of Rs. 4923.94 Crores has been approved. FIDF aims to achieve a sustainable growth of 8-9 percent, in a move to augment the country's fish production to the level of about 22 million tonnes by 2022-23.

FIDF provides concessional finance/loan to the Eligible Entities (EEs) including All State Government/ UTs, Entrepreneurs, Companies, physically disabled, Women, SCs/STs/ Marginal Farmers, SHGs, Fisheries Cooperative Federations, Collective groups of fish farmers and fish producer groups for development of identified fisheries infrastructure facilities. The concessional finance under FIDF is provided by Nodal Lending Entities (NLEs) namely National Bank for Agriculture and Rural Development (NABARD), National Cooperatives Development Corporation (NCDC) and all scheduled Banks.



*Fishermen casting net for catching fishes*



*Deep sea fishing vessels*



*Sea Cage Culture*

NFDB is the nodal implementing agency for the FIDF scheme. NFDB receives proposals from EEs, undertakes scrutiny of proposals and place them before the Central Approval & Monitoring Committee (CAMC) for approval. Under FIDF, the Department of Fisheries provides interest subvention up to 3% per annum for providing concessional finance by NLEs at the interest rate not lower than 5% per annum. Loan lending period under FIDF is five years from FY 2018-19 to FY 2022-23 and maximum repayment period is of 12 years inclusive of moratorium of 2 years on repayment of principal.

<b>105</b> Proposals approved	<b>Rs. 4923.94 Crores</b> Total cost of the approved proposals	<b>Rs. 3236.81 Crores</b> Project cost restricted to interest subvention	<b>Rs. 1260.28 Crores</b> Loan sanctioned by NABARD to State Government
<b>Rs. 11.30 Crores</b> Loan sanctioned by Scheduled Banks to Private Beneficiaries	<b>Rs. 365.70 Crores</b> Loan disbursed by NABARD	<b>Rs. 18.60 Crores</b> Funds released to NABARD by DoF	<b>Rs. 10.72 Crores</b> Funds utilized by NABARD

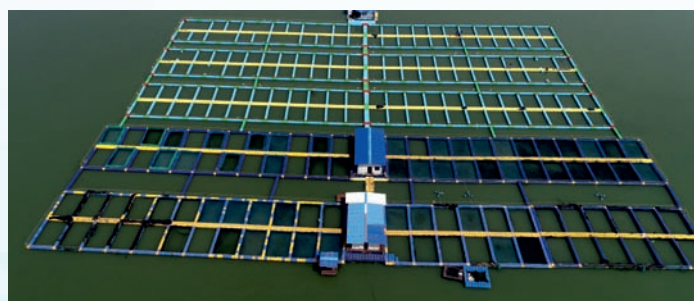
### The details of proposals approved under FIDF

S.No.	Name of the Project	Total Project Cost (Rs. In Crores)	Project cost restricted for interest subvention (Rs. In Crores)
1.	Tamil Nadu (52 proposals)	1419.98	1182.16
2.	Andhra Pradesh (4 proposals)	1291.40	600.00
3.	Gujarat (5 proposals)	1354.92	750.00
4.	West Bengal (10 proposals)	27.99	17.41
5.	Goa (1 proposals)	6.41	5.00
6.	Himachal Pradesh (1 proposals)	5.00	5.00
7.	Odisha (3 proposals)	24.68	24.68
8.	Maharashtra (4 proposals)	673.33	566.54
	<b>Sub Total</b>	<b>4803.71</b>	<b>3150.79</b>
9.	Proposals from Private Entrepreneurs (25 Proposals from 12 States)	120.23	86.02
	<b>Sub Total</b>	<b>120.23</b>	<b>86.02</b>
	<b>Total</b>	<b>4923.94</b>	<b>3236.81</b>

The tripartite Memorandum of Association (MoA) is implemented between the State Government, NABARD and Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying funding the State/UTs project under FIDF by NABARD. However, so far, only 9 States Governments namely Tamil Nadu, Gujarat, West Bengal, Andhra Pradesh, Karnataka, Kerala, Maharashtra, Haryana, Goa and UT of Jammu and Kashmir have signed the tripartite MoA for availing initial concessional finance.



Fishing boat Harbour in Chennai



Open sea cage

# INSPIRATIONAL STORIES FROM INNOVATIVE FARMERS



## MR. RAGHUVeer SINGH

ADOPTION OF INNOVATIVE AQUACULTURE  
TECHNIQUE

BELONGS TO VILLAGE DHANAURA,  
DISTRICT OF RAMPUR OF UTTAR PRADESH

OWNER OF JONSY FISH SEED HATCHERY,  
DHANAURA

After launch of Pradhan Mantri Sampada Yojana (PMMSY), Mr. Raghudev was keen to adapt innovative technologies and to avail the benefits under PMMSY, applied for the establishment of large Recirculatory Aquaculture System (RAS) to overcome the problem of water scarcity that reduced fish production and his income.

Mr. Raghudev Singh, beneficiary of PMMSY scheme of District Rampur received a cheque amount of Rs. 7.20 lakh from Hon'ble CM Shri Yogi Adityanath to start fish production from RAS units. As a result, Mr. Raghudev supplied 2.5 lakhs of fingerlings to the River Ranching Programme in Amroha and Bijnor, districts of UP.



## MR. ANANDA MALAKAR

INSPIRED TO START ASIAN CATFISH FARMING  
AFTER WATCHING VIDEO ON  
SOCIAL MEDIA PLATFORM

BELONGS TO ODISHA STATE, INDIA,  
OWNER OF 14 PONDS STOCKED  
WITH DESI MAGUR

Mr. Ananda Malakar was a vehicle mechanic before he started catfish farming. He ventured into fish farming without any prior knowledge, after several failed attempts he achieved encouraging results and produced 60,000 fingerlings. He earned around Rs. 3 lakhs that helped him recover his investment cost and establish his fish business.





## **MR. ANUP SARMAH**

**RECEIVED BEST FISH FARMER AWARD FROM  
UNION MINISTER SHRI PARSHOTTAM RUPALA**

**BELONGS TO JOKAPURA VILLAGE  
NEAR GOHPUR TOWN IN NORTH ASSAM**

Mr. Anup Sarmah constructed a fishery unit in the middle of the marshy wasteland created due to recurrent floods in 2015. He converted wasteland into a 70 acres project. He divided fisheries activities across 32 ponds and nurseries and engaged 20 families by skilling them.

With continuous and dedicated efforts, 80 tons of live fish has been produced this year. Moreover, to make village self-sufficient 768 fish farmers were trained and more than 20 online training courses were conducted during the pandemic, which were attended by more than 1,000 fish farmers.



## **MRS. NAMITHA JEEVAN KOTIAN**

**SUCCESSFUL AQUA FARMER**

**BELONGS TO MULKI, KARNATAKA,  
OWNER OF SEABASS CAGE CULTURE UNIT**

After the launch of PMMSY, Mrs. Kotian decided to take up brackish water cage culture as business opportunity and with the technical support and guidance by Dakshina Kannada Fisheries Department she started cage culture of seabass.

Together Mr. and Mrs. Kotian are able to successfully harvest 8 tons of seabass in 11 months and sell it for a market rate of Rs. 350 per kg. Mrs. Kotian has been appreciated for her business efforts and is continuously supported by Department of Fisheries, Government of Karnataka.



## **GRAMEEN SAHARA: A STORY OF ONE CROP AND THIRTY LAKH RUPEES IN KAMRUP, ASSAM**

**DEDICATEDLY WORKING ON SEVERAL COMMUNITY DEVELOPMENT PROGRAMS**

**AN NGO, HEADED BY MR. SARAT CHANDRA DAS**

In February 2021, Grameen Sahara started construction of medium BioFloc unit with the financial support received from PMMSY through the state Fisheries Department. In this project, 25 round cemented tanks with capacity of 10,000 liters each have been constructed at Pachimdhuli village.

The infrastructure related workdays completed by first week of May 2021 and fish seeds of Vietnamese Koi were introduced @ 4500 numbers per tank. After 6 months of culture, the fishes were harvested with a size of 180-200 gm per fish. The total production from the tank was 200 quintals which led to the gross income of Rs. 3 Crores from six months duration of one crop.



## **SUCCESS STORY OF GUJARAT STATE FISH CULTURE IN DHAROI RESERVOIR DISTRICT MEHSANA OF GUJARAT STATE**

Members of four cooperative societies came forward and took Dharoi Reservoir on lease with the help from the State Fisheries Department with an aim to increase fish production, livelihood security for the local communities. In the year 2019-20, around 1000 cages were installed with 60% subsidy on Rs. 3 lakhs unit cost, totaling it to Rs. 18 Crores. As a result, 2200 MT fishes were produced with an average of 2.2 tons per cage in a period of 10 months. Society members successfully sell live Pangasius fish in the local market as well as in Ahmadabad, Sabarkantha and Delhi. Their success in fisheries has motivated and inspired other many local people to take up fish activities as their livelihood.

## PM launches Matsya Sampada Yojana, says scheme will double fish exports in 3-4 years

**EXPRESS NEWS SERVICE**  
NEW DELHI, PATNA,  
SEPTEMBER 10

PRIME MINISTER Narendra Modi on Thursday launched the PM Matsya Sampada Yojana, which aims to double fish exports in three-four years.

Launching the scheme via video-conference, the PM said, "Today the scheme is being launched in 21 states across the country. Over Rs 20,000 crore will be spent on this in the next 4-5 years. Works worth Rs 1,700 crore are being started today. Under the scheme, several facilities have been inaugurated in Patna, Purnia, Sitamarhi, Madhepura, Kishanganj and Samastipur."

This is the first such comprehensive plan to promote fisheries in the country, he said, adding, "The goal is to double fish exports in the coming 3-4 years."



PM Narendra Modi at the launch of the scheme. PTI

After opening his speech in Bhojpur, Modi switched to Hindi to say: "The thinking behind launching sundry schemes today is to ensure that our villages should become India of 21st century and the strength of Atmanirbhar Bharat."

Bihar Chief Minister Nitish Kumar, Deputy Chief Minister Sushil Modi and Union minister

Giriraj Singh joined the launch programme from Patna via video-conference.

Under the new scheme, fish producers will get new infrastructure, modern equipment, and new markets will be provided, Modi said. "This will increase earning opportunities through farming as well as other means." The scheme will boost fish, milk and honey production, paving the way for blue, white and sweet revolutions, he said.

The PM also launched other initiatives for fisheries, dairy and animal husbandry including e-GOPALA app, which will provide information "related to cattle care, from productivity to its health and diet". The app will enable cattle owners to buy and sell animals, said a statement from the government.

The PM said the Centre was looking at taking IVF technique in rearing calves to every village.

"A cow generally gives birth to one calf in a year, but there have been experiments in laboratories getting several calves in a year through IVF technique. We intend to extend this technique to every village."

Referring to Mission Dolphin, which was announced on August 15, Modi said, "I learnt that Nitish Babu has been quite excited with the project. I believe if the number of dolphins goes up, it would benefit people living by Ganga." He was referring to the positive impact of rearing dolphins on fishery.

Lauding the work done by the Bihar government, Modi praised Nitish for the scheme to deliver drinking water to every home. "Till four-five years ago, only 2 per cent people were linked to supplied drinking water. This figure has now gone up to 70 per cent and about 1.5 crore households are linked to the scheme," he said.

## पीएम ने बुलंद की आत्मनिर्भर भारत की आवाज

बिहार समेत 21 राज्यों के लिए 20,500 करोड़ की मत्स्य संपदा योजना का शुभारंभ किया

राज्य ब्यूरो, पटना : प्रधानमंत्री नरेंद्र मोदी ने गुरुवार को 20 हजार करोड़ रुपये से ज्यादा की प्रधानमंत्री मत्स्य संपदा योजना (पीएमएमएसवाई) की शुरुआत करते हुए इससे 55 लाख लोगों को रोजगार मिलने की उम्मीद जताई। वचुअल कार्यक्रम में उन्होंने कहा कि आज 21 प्रदेशों में प्रधानमंत्री मत्स्य संपदा योजना शुरू हो रही है।

उन्होंने कहा, आज जितनी भी योजनाएं शुरू हुई हैं उनके पीछे सोच यह है कि हमारे गांव 21वीं सदी के आत्मनिर्भर भारत की ताकत और ऊर्जा बनें। इस योजना से मत्स्य निर्यात दोगुना होने के साथ-साथ अधिक से अधिक रोजगार का सुजन होगा और किसानों की आय भी दोगुनी होगी। पीएम मोदी ने इस मौके पर ई-गोपाला एप भी लॉन्च किया।

गुरुवार को हुए वचुअल समारोह में प्रधानमंत्री ने कहा कि आजगी के बाद पहली बार इतनी बड़ी राशि



विधानसभा चुनाव से पहले प्रधानमंत्री नरेंद्र मोदी ने गुरुवार को प्रधानमंत्री मत्स्य संपदा योजना और ई-गोपाला एप लॉन्च करने के दौरान बिहार में वीहियो कॉन्फ्रेंसिंग के जरिये रेली को संबोधित किया। ● एतजअइ

का निवेश सरकार पशुपालन, मत्स्य और डेयरी क्षेत्र में कर रही है। देश में पहली बार अलग से मंत्रालय बनाया गया है। लक्ष्य यह भी है कि आने वाले तीन-चार वर्षों में मछली निर्यात को दोगुना किया जाए। गो-पालकों और मछली उत्पादकों से बात करने के बाद मुझे नई ऊर्जा मिली है। इससे पूर्व उन्होंने पटना, मधेपुरा, पूर्णिया, किशनगंज, सीतामढ़ी, समस्तीपुर और बेगूसराय जिले के लिए विभिन्न

योजनाओं की घोषणा की।  
खांटी भोजपुरी अंदाज में बोले पीएम : बिहार के लोगों को संबोधित करने की बारी आई तो प्रधानमंत्री नरेंद्र मोदी का अंदाज खांटी भोजपुरी हो गया। उन्होंने कहा कि रउआ सधे के प्रणाम बा, देसबा खातिर, गांव और व्यवस्था मजबूत करे खातिर, मछली पालन करे खातिर। सैकड़ों करोड़ रुपये की योजना शुभारंभ भईल ह। हमार गांव 21वीं सदी के

भारत, आत्मनिर्भर बिहार की ताकत बने। मेरी बात को लिख लीजिए कि पशुपालन, डेयरी और मत्स्य पालन क्षेत्र में धविष्य उज्ज्वल है। इसी के साथ उन्होंने विधानसभा चुनाव से पहले बिहार को सौगात देने का सिलसिला शुरू कर दिया। गुरुवार को पशुपालन, मत्स्य और डेयरी से संबंधित 294.53 करोड़ की योजनाओं का शिलान्यास और उद्घाटन किया।

बेहतर काम के लिए नीतीश की सराहना की : बिहार में विकास के लिए मुख्यमंत्री नीतीश कुमार की पीठ थपथपाते हुए प्रधानमंत्री ने कहा कि चार-पांच साल पहले तक सिर्फ दो फीसद घरों को स्वच्छ पेयजल मिलता था। वर्तमान में यह आंकड़ा 70 फीसद हो गया है। बिहार के 60 लाख घरों को नल से जल की आपूर्ति सुनिश्चित हुई है। समारोह को मुख्यमंत्री नीतीश कुमार, उप मुख्यमंत्री सुशील मोदी ने भी संबोधित किया।

ग्रामीणों के परिश्रम की सराहना करते हुए प्रधानमंत्री ने कहा कि कोरोना काल में जब सारे काम बंद थे, तब भी गांवों से मीडियों तक दूध-दही, सब्जी-फल, अनाज आदि की आपूर्ति होती रही। बिहार अब उत्तम देसी नस्लों के पशुओं के विकास का केंद्र बन रहा है। आइवीएफ की मदद से एक गाय से कई नस्ल तैयार हो रही हैं।





सत्यमेव जयते

**Government of India**  
**Ministry of Fisheries, Animal Husbandry & Dairying**  
**Department of Fisheries**