



CSS - BLUE REVOLUTION (NEEL KRANTI MISSION)

INTEGRATED DEVELOPMENT AND MANAGEMENT OF FISHERIES



2015-16

to

2019-20

Department of Fisheries

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

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Integrated Development and Management of Fisheries

Fisheries is a sunrise sector playing an important role in the socio-economic development of about 14.50 million fisher folk of the country. With an estimated food grain production of around 280 MMT, Indian Agriculture is poised for sustained growth in the years ahead. As a corollary, the growth and development in fisheries sub sector has also registered a faster pace. Further, the demand for fish and fishery products is also on the increase both within and outside the country thus outstripping the supply. The Government of India's goal under Neeli Kranthi Mission (NKM) was enhancing fish production from (2016-17) 11.41 MMT to 15 MMT by 2019-20 and 17.5 MMT by 2021-22.

The Government of India in December, 2014 had launched 'Blue Revolution' Mission with a central outlay of Rs. 3000 crores. The Scheme aimed with a focus of an integrated approach for the development and management of fisheries covering both the marine and inland fisheries to ensure a sustained annual growth rate of 6% to 8% in fish production. It was also aimed to increase fish production and productivity by utilizing the fisheries resources judiciously, and also doubling income of fishers and fish farmers in these five years. The scheme adopted the strategy of encouraging private investment, entrepreneurship development and better leveraging of institutional finance. Skill development and capacity building in fisheries and allied activities and creation of post-harvest and cold chain infrastructure facilities are the channels of achieving the targets. The scheme was implemented from 2015-16 to 2019-20. The salient features of BR scheme and achievements made are given below:

Objectives of the scheme:

1. To tap the total fish potential of India on both inland as well as in the marine sector and to triple the production by the year 2020.
2. Transforming the fisheries sector into a modern industry through the utilization of new technologies and processes.

3. Doubling the income of the fishers through increased productivity and improving the post-harvest marketing infrastructure including e-commerce, technologies, and global best innovators.
4. To ensure the active participation of the fishers and the fish farmers in income enhancement.
5. Developing the nutritional and food security of the nation.

Salient Features of the Blue Revolution Scheme:

- Providing suitable linkages and convergence with the 'Sagarmala Project' of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNAREGA), Ministry of Shipping, National Rural Livelihoods Mission (NRLM), Rashtriya Krishi Vikas Yojana (RKVY), etc.
- The Blue Revolution scheme concentrates mainly on enhancing the production and productivity of aquaculture and fisheries both from the inland and marine sources.
- Promoting and encouraging the economically backward sections like the Scheduled Castes, Scheduled Tribes, Women, and their co-operatives to take up fishing.
- The Blue Revolution Scheme encouraged entrepreneurship development, private investment and better leveraging of institutional finance.

Financing pattern and implementation system:

The scheme was implemented in accordance with the annual budgetary allocation in the Demand for Grants of the Ministry of Agriculture and Farmers Welfare and the Administrative Approval dated 20th May, 2016. In turn, the DOF has provided financial assistance to the participating State Departments/ Agencies/ Institutions/ beneficiaries. The pattern of assistance was in accordance to changes/ modifications effected periodically by the GOI.

Central funding support was extended for the projects under the three components through States/UTs and NFDB viz., and

- National Fisheries Development Board and its activities
- Development of Inland Fisheries and Aquaculture

- Development of Marine Fisheries, Infrastructure and Post-Harvest Operations.
- National Scheme for the Welfare of Fishermen

Components directly implemented by DOF:

- Strengthening of Database & Geographical Information System (GIS) of the Fisheries Sector
- Institutional Arrangement for the Fisheries Sector and
- Monitoring, Control and Surveillance (MCS) and other need-based interventions was implemented by the DOF.

The three broad categories financial support extended were:

(I) Individual beneficiaries/fishers, entrepreneurs, scheduled castes(SCs), Scheduled Tribes (STs) groups, women and their Co-operatives, SHGs, fish farmers and miscellaneous fishermen bodies oriented schemes funded by DOF, GOI and

(ii) States/Union Territories, their agencies / organizations/ Corporations / Federations / Fishers Cooperatives / Fishers bodies/Boards/Panchayats and local urban bodies,

(iii) Central Government, Central Government institutes/Agencies, NFDB, ICAR institutes etc.

Major Initiatives of Blue Revolution:

The initiatives of Department of Fisheries and NFDB under Blue Revolution has resulted in the development of fisheries sector both in terms of fish production and productivity, post –harvest infrastructure, marketing etc. economic condition of India through the augmentation of fisheries and thus contributing towards the food and nutritional security. The utilization of the water resources for the development of fisheries was done by the Neel Kranti Mission in a sustainable manner.

Under Inland Fisheries & Aquaculture 22,607 ha area has been developed for pisciculture, established 11 Brood banks for development of species such as

Mahaseer, Channa Striatus (Murrel), Jayanti Rohu, IMC, Amur Carp, Pangasius, trout etc., 535 fish seed hatcheries were established for producing seed supply for species such as IMC, trout, Pangasius, Murrel etc. and 11 hatcheries were renovated / upgraded. 3,679 ha were developed for fish seed rearing units.

Promoted activities for enhancement of income and livelihood opportunities to communities dependent on wetland through stocking of fish fingerlings in 2,875 ha and also facilitated in developing infrastructure in Reservoirs to the dependent society member through Integrated Reservoir fisheries development program targeted in 29 reservoirs.

Under brackish water segment, an area of 1,638 ha has been developed and 15 Nos of hatcheries including new species such as seabass and mud crab were also promoted.

In-situ pen and cage 13982 units were erected for fish seed rearing in reservoirs and other water bodies.

New technology namely Installation of Re-Circulatory Aquaculture system was introduced, achieved installation of 522 units.

Under CSS BR on Marine Fisheries 6 Nos. of fishing harbours were established, 2 Nos existing harbours were modernized /upgraded.

Under post-Harvest infrastructure - cold chain has been created through establishment of 221 units of Ice plants, 8 units of Cold storage, 104 units of ice plants cum cold storage, 128 units of renovation of existing ice plants, 303 units of refrigerated & insulated trucks 10 tonnes and one unit of refrigerated & insulated truck 6 tonnes.

To provide fish in a hygienic means and to earn better income by the fish vendor, supported Fish Transport & Marketing facilities for procuring 832 units of auto rickshaws, 5614 units of motor cycle with ice box and 225 units of mobile/ retail fish outlets (Kiosk) were set up.

NFDB's contribution under Blue Revolution:

NFDB being a technical arm of DoF extended technical guidance and support to 27 States & 7 UTs in preparation of projects which were implemented under Blue revolution for carrying out various activities and scrutinized these proposals from

techno financial angle and recommended for the viable activities to DoF, in line of which funds were approved and released to States/UTs and to Fisheries ICAR institutes and KVKs.

NFDB has directly extended some need-based activities mandated under Blue Revolution scheme with special focus on increasing productivity, livelihood generation and creation of better post-harvest and marketing infrastructure and other need-based interventions.

- Focused on cluster-based approach and developed water resources for fish production and other ancillary facilities for perceivable impact and benefit.
- Demonstrated new and emerging technologies like Cage Culture, Recirculating Aquaculture System (RAS) for intensive fish production, which was a proof of concept, experience sharing and learning.
- Promoted ornamental fisheries, supported ornamental fish culture and breeding, and augment its trade and export.
- Imparted need-based quality training to fisheries departmental officials, extension functionaries, fishers and fish farmers; conducted workshops, seminars, exhibitions, farmers meet etc.; and organized various awareness and promotional programmes.

Some of the major outcomes of the Blue Revolution in India are mentioned below:

- Currently, the Indian Fisheries Sector reached a production of 4.7 million tonnes of fish from a limit of 60,000 tonnes including 1.6 million tonnes of fish from freshwater aquaculture.
- India is recorded to achieve an average annual growth of 14.8% as compared to the global average percentage of 7.5 in the production of fish and fish products.
- The fisheries sector has become India's largest agricultural export item over the last five years with a growth rate of 6% – 10%.

- India has become the world's second-largest producer of fish with exports worth more Rs. 47,000 crore rupees.
- The fisheries and aquaculture production contributes 1% and 5% to India's GDP and Agricultural GDP respectively.
- **Physical achievements under Blue Revolution scheme during FY 2015-16 to 2019-20**

S. No under BR	Name of the Component	Unit	Number of units established
1	2	3	4
1 Development of Inland Fisheries and Aquaculture			
1.1	Construction of new ponds/tanks	Ha.	19,264
1.1.1	Renovation of Pond with input cost	Ha.	55
1.1.2	Inputs for MGNAREGA ponds	Ha.	1,343
1.2	Development of Brackish water Aquaculture	Ha.	1,638
1.2.1	Hatchery	No.	15
1.2.2	Nursery	Ha.	71
1.2.3	Grow out Pond	Ha.	206
1.2.4	Grow out cages	No.	180
1.3	Development of Waterlogged Areas	Ha.	1,668
1.4	Productive Utilization of Inland Saline/Alkaline Waters for aquaculture	Ha.	432
1.4.1	Nursery	Ha.	21
1.4.2	Grow out Pond	Ha.	420
1.5	Inland Capture Fisheries (Reservoirs/Rivers etc.)	No. of Projects	
1.5.1	Craft and gear	No	3,370
1.5.2	Construction of landing centers	No.	144
1.5.3	Riverine Fisheries Conservation and Awareness Programme	No.	41
1.6	Integrated Development of fisheries in Reservoirs	No.	29

1.7	Establishing fish feed mills/plants	No.	229
1.9	Installation of cages/pens in reservoirs and other open water bodies	No.	13,982
1.10	Installation of Recirculatory Aquaculture Systems (RAS)	No.	522
1.11	Stocking of fish fingerlings in beels wetland	Ha.	2,875
1.13	Creation of portal for advisory services to farmers on mobile and internet	No.	6
1.14	Establishment of Fish/ prawn seed hatcheries	No.	535
1.15	Fish Seed Rearing Units (one time grant)	No.	3,679
1.16	Renovation of Fish/ prawn seed hatcheries	No.	11
1.17	Broodbank facilities	No.	11
1.18	Construction of Raceways	No.	2,026
1.19	Running water fish culture units	No	214
1.20	Establishment of fish / prawn health laboratory	No.	12
1.21	Technology Development / up gradation and R&D projects in fisheries	No.	19

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S. No under BR	Name of the Component	Unit	Number of units established
1.22	Development of Ornamental fisheries		
1.22.1	Establishment of medium/ backyard hatcheries for ornamental fishes	No.	53
1.22.2	Establishment of Integrated unit of ornamental fish	No.	12
1.22.3	Establishment of medium scale ornamental units	No.	29
1.22.4	Aquarium Fabrication Units	No.	4
2 Development of Marine Fisheries, Infrastructure and Post Harvest Operations			
2.1	Development of Marine Fisheries		
2.1.1	Motorisation of Traditional Craft	No.	8,379
2.1.2	Safety of Fishermen at Sea	No.	9,967
2.1.4	Introduction of Intermediate Craft	No.	7
2.1.6	Assistance to Traditional/Artisanal fishermen	No.	1,107
2.1.7	Promotion of Mariculture	No.	397
2.1.7.5	Seacage Culture	No.	770
2.1.7.6	Pearl Culture	No.	5
2.1.7.7	Seaweed Culture	No.	10,510
2.1.7.8	Mussel Farming (No)	No.	3,200
2.1.9	Introduction of deep sea fishing vessels (24m OAL and above) under PPP mode	No.	918
2.1.10	Innovative and need based project	No.	31
2.2 Development of Infrastructure and Post Harvest Operations			
2.2.1	New fishing harbours/fish landing centres	No. of Projects	6
2.2.2	Modernisation/Up-gradation of existing FH	No. of Projects	2

2.2.3	Post Harvest Infrastructure – cold chain for fisheries including marketing facilities	No. of Projects	
2.2.3.1	Ice plants (New)	No.	221
2.2.3.2	Cold storage	No.	8
2.2.3.3	Ice plants cum cold storage	No.	104
2.2.3.4	Renovation of existing ice plants	No.	128
2.2.3.5.1	Refrigerated & insulated trucks 10 tons	No.	303
2.2.3.5.2	Refrigerated & insulated trucks 6 tons	No.	1
2.2.3.6	Auto rickshaws	No.	832
2.2.3.7	Motor cycles with ice box	No.	5,614
2.2.3.8	Bycycle with ice box	No.	3,361
2.2.3.9	Establishment of retail/wholesale fish outlet	No.	993
2.2.3.10	Setting up of mobile/retail fish outlet (Kiosk)	No.	225
2.2.4	Solar Power System	No.	202
3 National Scheme of Welfare of Fishermen			
3.1	Fishermen Houses	No.	18,681
3.2	Group Accident Insurance for Active Fishermen	No.	2,05,44,763
3.3	Saving-cum-Relief (both marine & inland fishers)	No.	13,76,973
3.4	Training, skill development to fish farmers & other stakeholders	No	85,443
3.5	Construction of Community Hall	No	2
3.6	Tube-wells	No	1