

# *Annual Report*

## *2009-10*



**National Fisheries Development Board**

Department of Animal Husbandry, Dairying & Fisheries

Ministry of Agriculture, Government of India

Hyderabad

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शरद पवार  
**SHARAD PAWAR**



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खाद्य और सार्वजनिक वितरण मंत्री  
भारत सरकार

MINISTER OF AGRICULTURE &  
CONSUMER AFFAIRS FOOD &  
PUBLIC DISTRIBUTION  
GOVERNMENT OF INDIA

9<sup>th</sup> December, 2010

The National Fisheries Development Board (NFDB) established in the year 2006, has completed four years of fruitful existence in promoting various development projects under intensive aquaculture, reservoir fisheries, ornamental fisheries, modernization of harbours and hygienic domestic markets. I am happy to note that the physical and financial progress achieved by NFDB is on a gradual rise from a mere Rs. 3.66 crores during 2006-07 to Rs. 85.52 crores during 2009-10 and bringing visibility to NFDB schemes all over the country.

NFDB is supporting the Government, Quasi Government organizations and Research and Development organizations in the form of 90% of the project cost as grant in aid. Provision is also made to support innovative activities, new technologies and culture of new species with 40% subsidy. Due care is also given for women empowerment especially for ornamental fish production and fabrication of aquariums with 50% subsidy assistance. Various State Governments, Fisheries Federation, R&D institutions, enterprising women self help groups should make use of the schemes for enhancing the fish production to 10 million tons by 2012.

I am happy to note that for effective implementation of various development schemes my Ministry has approved the additional staff to meet the challenges of the growing workload in NFDB.

I hope this document will help in disseminating the information on various projects under taken and the progress achieved by NFDB's and help in articulating future development plans.

**(SHARAD PAWAR)**

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अरुण सुभाषचन्द्र यादव  
ARUN SUBHASHCHANDRA YADAV



## MESSAGE

राज्य मंत्री  
कृषि एवं खाद्य प्रसंस्करण उद्योग  
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NEW DELHI-110 001

15 FEB 2011

Fisheries sector in the country has become a major source of livelihood security to the rural people by creating employment opportunities in remote villages and also helps in tackling malnutrition in the country. Our vast resources in freshwater and brackishwater were not utilized fully due to lack of coordinated approach among the various stakeholders involved in these activities. Improved production methodologies, adopting food safety standards and promotion of consumption would pave way for the overall development of the sector.

The National Fisheries Development Board (NFDB) under the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India is mandated to increase the production and productivity in Fisheries; development of critical infrastructure for fishing harbours, landing centres; modernization of fish markets; promotion of ornamental fisheries and fish consumption.

Through the Annual Report 2009-10, I am happy to learn about activities initiated by the NFDB to achieve its mandate. I am sure the Annual Report would provide a clear insight on the efforts taken by the Board for fisheries development in the country.

I wish the NFDB to leap new heights in promoting the fisheries sector in the country.

( ARUN YADAV )





प्रो: के. वी. थॉमस  
PROF. K. V. THOMAS  
പ്രൊഫ. കെ.വി.തോമസ്



कृषि, उपभोक्ता मामले,  
खाद्य और सार्वजनिक वितरण  
राज्य मंत्री  
भारत सरकार  
नई दिल्ली - 110 001  
MINISTER OF STATE FOR  
AGRICULTURE, CONSUMER AFFAIRS,  
FOOD & PUBLIC DISTRIBUTION  
GOVERNMENT OF INDIA  
NEW DELHI-110 001

29 NOV 2010

### MESSAGE

I am happy to see the annual report of National Fisheries Development Board (NFDB). I find that NFDB has been striving to develop fisheries sector by providing technical, financial and managerial support to different implementing agencies. The Majority of the fisher folks in the country depend on marine fisheries for their livelihood. About 20 per cent of the fish caught from the sea is discarded as unfit for human consumption due to lack of onboard processing and hygienic handling of fish. Realizing this, NFDB is supporting in a big way the modernization of fishing harbors and fish landing centers and construction of clear and hygienic markets.

I am happy that the Board has been supporting, ornamental fisheries development, capacity building and polyculture of fish and scampi in Kule lands etc.,

Impetus should be given for development of food processing units for bringing our value added products and enhancement of domestic consumption. Production of quality dry fish, establishment of incubation facilities, training of women on value added products etc. needs greater attention.

I hope the annual report brought out by NFDB would serve as a source of information and helps in understanding the steps initiated by the Government of India for development of fisheries and aquaculture in the country.

  
(Prof. K. V. Thomas)

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**सचिव  
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**Secretary  
Government of India**



**कृषि मंत्रालय**

**पशुपालन, डेयरी और मात्स्यपालन विभाग**

**कृषि भवन, नई दिल्ली-११० ०११**

**MINISTRY OF AGRICULTURE**

**Department of Animal Husbandry, Dairying & Fisheries**

**Krishi Bhavan, New Delhi-110 011**

Dated the 15th December, 2010

**MESSAGE**

The National Fisheries Development Board (NFDB) is becoming a pivotal agency for fisheries development in India. It is working in a focused manner to identify new opportunities to enhance fish production and so meet the increasing demand for quality fish. The Ministry has approved broad and flexible guidelines to look after the emerging needs of this sector. The Annual Report 2009-10 reflects the programmes undertaken and the support services for different types of stakeholders. It should therefore be of great use to the various stakeholders who are keen to make a mark in this important sector.

(Rudhra Gangadharan)



## FROM THE CHIEF EXECUTIVE'S DESK

I feel privileged to present a brief outline of the progress made by the National Fisheries Development Board (NFDB) Hyderabad during 2009-10.

This year has been eventful with decisions of the Ministry to introduce Vannamee culture and regulations for the culture of Pangassius. Both these decisions have been effectively translated into action by NFDB with the support of the states and ICAR institutions. Further, during this year we could focus on enhancing the quality seed production, stocking of seed in reservoirs, modernizing harbours and establishing hygienic markets in the country. During the year under report an amount of Rs.85.52 crores could be utilized for various projects.

NFDB is able to achieve this progress with the continued encouragement received from various state fisheries departments, fisheries cooperatives, organizations under the Department of Animal Husbandry, Dairying and Fisheries, MPEDA, Fisheries Colleges, important NGO's including M.S.Swaminathan Research Foundation.

I place on record my gratitude to Shri.Sharad Pawarji, Hon'ble Union Minister of Agriculture and Food Processing Industries and Chairman of the Governing Body of the NFDB for his guidance and support for taking up new projects.

My sincere thanks are due to Prof. K.V. Thomas, Hon'ble Minister of State (Independent charge) for Consumer Affairs and Public Distribution and former Vice Chairman of the Board and Shri. Arun Yadav, Hon'ble Minister of State for Agriculture and Vice Chairman of the Board for the valuable support rendered. I wish to thank Prof. Abhijit Sen, Member (Agriculture) Planning Commission for his valuable guidance.

My special thanks are due to Shri. Rudra Gangadharan , IAS., Secretary, DAHD&F and Chairman of the Executive Committee of the Board, Shri A.S.Lamba, Additional Secretary (Financial Advisor), DAHD &F, Shri Tarun Shridhar, IAS, Joint Secretary, DAHD&F for their timely guidance and support. The encouragement received from Dr.S.Ayyappan, Secretary, DARE and Director General, ICAR and his team of Directors is gratefully acknowledged.

I wish to extend my sincere gratitude to all the Governing Body Members, Executive Committee Members for their support and guidance.

10<sup>th</sup> February, 2011

  
(Dr.P.Krishnaiah)







## I. INTRODUCTION

The increasing demand for fish because of the public awareness generated about fish as a very important health food due to its richness in omega-3 fatty acids and other health factors has been creating huge pressure on development of fisheries and aquaculture in the country. India, therefore has to plan and work for enhancement of fish production by prioritizing investment areas to achieve the target of increasing per capita fish availability from 9 kg to world average of 13 kg. Therefore, during this year special attention has been paid for fish productivity and production enhancement laying emphasis on new species and new technologies. The year has witnessed introduction of SPF *Litopenaeus vannamei* with well thought guidelines for hatcheries and farming and creation of a standard quarantine facility. Guidelines were also given for introduction of freshwater catfish *Pangasius sutchi* (Pangus). In addition, demonstration of seabass culture in ponds and open sea cages and cage culture of lobsters was focused. The NFDB initiatives for this year include reservoir fisheries development through capacity building on management of reservoirs, stocking of fingerlings, organizing fish melas and fish festivals in various states.

NFDB has focussed on the improvement of skills of the stake holders through the ICAR Fisheries Research Institutes and other important training institutions.

## II. OBJECTIVES OF THE BOARD

- To bring major activities relating to fisheries and aquaculture for focussed attention and professional management
- To coordinate activities pertaining to fisheries undertaken by different Ministries/Departments in the Central Government and also coordinate with the State/Union Territory Governments
- To improve production, processing, storage, transport and marketing of the products of capture and culture fisheries
- To achieve sustainable management and conservation of natural aquatic resources including the fish stocks
- To apply modern tools of research and development including biotechnology for optimizing production and productivity from fisheries



- To provide modern infrastructure mechanisms for fisheries and ensure their effective management and optimum utilization
- To generate substantial employment
- To train and empower women in the fisheries sector
- To enhance contribution of fish towards food and nutritional security

### III. CONSTITUTION OF THE GOVERNING BODY

The GOVERNING BODY of the NFDB consists the following members:

- |             |  |   |               |
|-------------|--|---|---------------|
| 1.          | Agriculture Minister,<br>Government of India,<br>(Ex-Officio)  | - | Chairman      |
| 2.          | Minister of State<br>In-charge Department of<br>Animal Husbandry, Dairying,<br>and Fisheries, Government of India,<br>(Ex-Officio) | - | Vice Chairman |
| 3.          | Member (Agriculture),<br>Planning Commission,<br>Government of India,<br>(Ex-Officio)  | - | Member        |
| 4 to<br>33. | Ministers in-charge of Fisheries<br>of the States and UTs  | - | Members       |
| 34.         | Secretary,<br>Department of Animal Husbandry<br>Dairying and Fisheries,<br>Government of India, (Ex-Officio)                       | - | Member        |
| 35.         | Secretary,<br>Department of Agriculture and Cooperation<br>Government of India,<br>(Ex-Officio)                                    | - | Member        |





36.	Secretary, Department of Agriculture Research and Education, Government of India, (Ex-Officio)	-	Member
37.	Secretary, Department of Commerce, Government of India, (Ex-Officio)	-	Member
38.	Secretary, Ministry of Food Processing Industries, Government of India, (Ex-Officio)	-	Member
39.	Secretary, Ministry of Panchayati Raj, Government of India, (Ex-Officio)	-	Member
40.	Chairman, Coastal Aquaculture Authority, Chennai (Ex-Officio)	-	Member
41.	Chairman, NABARD, Mumbai, (Ex-Officio)	-	Member
42 to 50.	Representatives (to be nominated) of groups and associations of fish farmers, fishing craft operators and exporters.	-	Members

## FUNCTIONS AND POWERS OF THE GOVERNING BODY

The Governing Body shall have the powers and duties to:

- i. Consider and decide on the programmes of activities of the Board and to add new schemes for ongoing activities of the Board.
- ii. Appoint auditors for the Board.
- iii. Consider the Annual Report, Audited accounts and balance sheet of the Board for the outgoing years



- iv. Add to and amend, with the prior approval of the Government of India, the rules of the Board.
- v. Supervise generally the functions of the Executive Committee and to provide guidance hereto.
- vi. Delegate any of its powers by resolution to the Executive Committee/ Committees constituted by Chief Executive or any other officer of the Board.

#### IV. CONSTITUTION OF THE EXECUTIVE COMMITTEE

The Executive Committee of the Board, consists of the following members:

Sl.No.	Name and Address	Designation
1.	Secretary, Department of Animal Husbandry, Dairying & Fisheries, Government of India, New Delhi. (Ex-Officio)	Chairman
2.	Financial Advisor & Additional Secretary, Department of Animal Husbandry, Dairying & Fisheries, Government of India, New Delhi. (Ex-Officio)	Member
3.	Advisor (Agriculture), Planning Commission, Government of India, New Delhi. (Ex-Officio)	Member
4.	Joint Secretary (Fisheries), Department of Animal Husbandry, Dairying & Fisheries, Government of India, New Delhi. (Ex-Officio)	Member
5.	Joint Secretary, Ministry of Food Processing Industries, Government of India, New Delhi. (Ex-Officio)	Member
6.	Managing Director, NABARD, Mumbai. (Ex-Officio)	Member



7.	Deputy Director General (Fisheries), ICAR, New Delhi. (Ex-Officio)	Member
8.	Chairman, Marine Products Export Development Authority (MPEDA), Kochi. (Ex-Officio)	Member
9.	Member Secretary, Coastal Aquaculture Authority, Chennai, (Ex-Officio)	Member
10 to 13.	Four Secretaries in charge of Fisheries of State Governments (to be nominated) (Ex-Officio)	Members
14.	Chief Executive of NFDB (to be appointed) (Ex-Officio)	Member-Secretary

## POWERS AND FUNCTIONS OF THE EXECUTIVE COMMITTEE

- i) The general superintendence, direction and the control of the affairs and functions of the Board shall be vested in the Executive Committee in accordance with these bye- laws and rules made therein for the furtherance of its objects, which may exercise all the powers necessary or expedient for the purpose
- ii) Without prejudice to the generality of the foregoing sub-rule, the Executive Committee shall have the powers:
  - a) To prepare and execute detailed plans and programmes for the Board and to consider and approve adjustment and re-appropriations of outlays for different components/programmes within the overall outlay approved by the Central Government for the plan projects of the Board, so as to carry on the administration and management of the Board efficiently and effectively;
  - b) To receive grants, gifts, donations and contributions and to have custody of the funds of the Board;



- c) To prepare, revise and amend the budget estimates of the Board each year and to sanction the expenditure;
- d) To institute and award fellowship, scholarships, prizes and medals;
- e) To collaborate with any other organization in the matter of fisheries development and to enter into agreements or contracts for and on behalf of the Board;
- f) To sue and defend all legal proceedings on behalf of the Board;
- g) To appoint, control, remove, suspend and dismiss staff as may be required to, for the efficient management of the affairs of the Board and to relate the recruitment and conditions of their service;
- h) To appoint Committees or Sub Committees as and when required;
- i) To delegate any of its powers by resolution to the Chief Executive or any other officer of the Board.
- iii) The Executive Committee shall be competent to decide appointment of persons on contract (for a period not exceeding six months at a time), while creation of all regular posts will need the approval of the Central Government.
- iv) All the matters to be placed before the Governing Body may as far as possible, in first instance be placed before the Executive Committee for examination.
- v) The Chairman of Executive Committee may, in extraordinary and emergency circumstances, act for and in the name of the Executive Committee subject to the ratification of such action by the Executive Committee within three months from the date of such decision provided that if any action so taken by the Chairman in the interest of the Board has the written concurrence of the Central Government, no ratification by the Executive Committee shall be required.

## CHIEF EXECUTIVE OF THE BOARD

- i) The Chief Executive shall be the Principal Executive Officer of the Board. He shall be appointed by the Chairman of the Governing Body of the Board with the previous approval of the Central Government and shall hold office for such period and on such conditions as may be specified by the Government.





- ii) It shall be the duty of the Chief Executive to coordinate and exercise general supervision over all the activities of the Board. In this regard, the Chief Executive shall be accountable to the Governing Body, the Executive Committee and the Central Government.
- iii) He shall prescribe the duties of all officers and staff of the Board and shall exercise such supervision and disciplinary control as may be necessary in accordance with the rules.

## V. GUIDELINES FOR VARIOUS NFDB ACTIVITIES

### 1. Intensive Aquaculture in ponds :

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	Construction of new fish/prawn ponds and Tanks		
	Existing species Entrepreneurs/ farmers	(a) Rs. 3.00 lakhs/ ha for plain areas	1. 20% subsidy with a ceiling of Rs. 0.60 lakhs/ha. 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.75 lakhs/ha.
		(b) Rs. 4.00 lakhs/ ha in hill states/ Districts and NE region	1. 20% subsidy with a ceiling of 0.80 lakhs/ha. 2. 25% subsidy to SC & STs with a ceiling of Rs. 1.00 lakhs/ha.
	New species Pangasius sutchi	Rs. 3.00 lakhs /ha	1. 20% of the unit cost for all farmers 2. 25% subsidy to SC & STs
2	Renovation of existing fish/prawn ponds and Tanks Entrepreneurs/ farmers	Rs.0.75 lakh/ha	1. 20% subsidy for all farmers/entrepreneurs with a ceiling of 0.15 lakhs/ha 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.1875 lakhs/ha.
	New species Pangasius sutchi	Rs.0.75 lakh/ha	
3	Cost of inputs		
	For prawn farming Entrepreneurs/ farmers	Rs.1.80 lakhs/ha	1. 20% subsidy with a ceiling of Rs. 0.36 lakhs/ha
	For fish/prawn farming in Paddy fields Entrepreneurs/ farmers	Rs.0.50 lakhs/ha.	1. 20% subsidy for all farmers/entrepreneurs
	New species Pangasius sutchi	Rs. 5.00 lakh / ha	40% of subsidy of the unit cost for initial period of 2 years and thereafter 20% for all farmers and 25% for SC / ST farmers.



Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
4	Establishment of freshwater prawn seed hatchery Capacity: 25 million PL / year State Governments ii) Capacity: 5-8 million PL / year Entrepreneurs/farmers	Rs. 30.00 lakhs/unit  Rs. 12 lakhs/unit	One time grant to the States for establishment of hatchery at State Level. 20% subsidy with a ceiling of Rs. 2.40 lakhs to entrepreneurs / farmers.
5	Establishment of fish seed hatchery		
6	Establishment of fish seed hatcheries with or without /nurseries 7-8 million (fry) capacity / year  New Species* (*Cultivable species other than major carps) Entrepreneurs/ farmers	Rs. 12.00 lakhs/ unit for plain areas  Rs. 16.00 lakhs/ Unit in hill state/ Districts and NE region Unit cost has to be approved by CIFA	20% back ended bank linked subsidy to entrepreneurs / farmers with a ceiling of Rs. 2.4 lakhs. 20% back ended bank linked subsidy to entrepreneurs /farmers with a ceiling of Rs. 3.2 lakhs. 40% back ended subsidy on capital investment
7	Renovation of fish Seed Farms i) Government fish seed rearing farms(aged about 5 years and above) ii) Renovation / remodeling / up gradation/ reconstruction of hatchery / nurseries in government sector (aged about 5 years and above) for existing and new species. Capacity: 7-8 million fry / year	Rs 2.00 lakh/ha. Rearing area  Rs 4.00 lakhs/ hatchery of 7-8 million fry production / year	90% one time grant. 90% one time grant.





Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
8	Construction of fish seed rearing units for rearing fry to large fingerlings of 80 - 100mm size	Rs. 3.00 lakhs/ha. for plain areas.	20% subsidy for all farmers/entrepreneurs 25% subsidy to SC & STs
		Rs. 4.00 lakhs/ ha in hill states/ Districts of NE region	20% subsidy for all farmers/entrepreneurs 25% subsidy to SC & STs 90% onetime grant to government / quasi government organizations
9	Brood stock Development Programme including ornamental (including farm and transport arrangements) - for Government Agencies/Government institutions only.	Rs 25.00 lakhs including a farm, transport arrangements for dissemination. Available for the State Governments.	Full grant to Government Agencies/Government institutions only.
10	Trout culture in race ways – Unit size: 45 m <sup>3</sup> water area Entrepreneurs/farmers	Rs.1.00 lakh/ Unit	1. 20% subsidy for all farmers/entrepreneurs with a ceiling of 0.20 lakhs/ha 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.25 lakhs/ha.
	Inputs for trout farming in raceways Unit size: 45 m <sup>3</sup> water volume	Rs.1.30 lakhs/ unit	1. 20% subsidy for all farmers/entrepreneurs with a ceiling of 0.26 lakhs/ha 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.325 lakhs/ha.
11	Trout seed hatchery i) Capacity: 0.5-1.0 million fry / year State Governments	Rs. 30.00 lakhs/unit	One time grant to the States/ ICAR institutions/ quasi government organizations .
	ii) Capacity: 0.2-0.3 million fry / year Entrepreneurs/farmers	Rs. 12 lakhs/unit	20% subsidy for all farmers/entrepreneurs
12	Feed mill ( Extruded floating pelleted feed of 5 tons/hour production capacity Entrepreneurs	Rs 1000.00 lakhs	40% equity on machinery and equipment in respect of listed companies  (or)



Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
	Feed mill of 2 tons/day.	Rs 25.00 lakhs/ unit	40% soft loan (with 5% interest) administered through commercial banks for entrepreneurs./ Profit making Fisheries Federations/ Fisheries Corporations
	Feed mill of 1.2 quintal /day	7.5 lakhs / unit	40% Soft loan on the capital cost (excluding land cost) @5% interest rate through nationalized banks 20% subsidy with a ceiling of Rs. 1.5 lakh per unit to entrepreneurs/ Farmers
13	Trout feed mill 3 tons/hour production capacity	Rs 500.00 lakhs	100% one time grant on machinery and equipment to State Fisheries dept/ ICAR / quasi government organizations.
14	Running water fish culture		
	Construction ( 100m <sup>3</sup> water volume)	Rs 0.45 lakhs/ unit	1. 20% subsidy for all farmers/entrepreneurs with a ceiling of 0.09 lakhs/unit 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.1125 lakhs/unit.
	First year input	Rs 0.15 lakhs/ unit	1. 20% subsidy for all farmers/entrepreneurs with a ceiling of 0.03 lakhs/unit 2. 25% subsidy to SC & STs with a ceiling of Rs. 0.0375 lakhs/unit.



**2. Reservoir Fisheries Development :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	i Fingerling Stocking in reservoirs @ 2000 /ha in small reservoirs, @ 1000/ha for medium and @500 for large reservoirs.	Re 1/- per fingerling of 80-100 mm IMC and other species indicated in the guidelines. This cost would include rearing of seed <i>insitu</i> / <i>exsitu</i> and transportation.	• 100% grant will be provided for stocking of fingerlings. Implementing agency shall have to pay 25% lease/ license amount to the NFDB
	ii Continuous stocking for medium and large reservoirs for 4 consecutive years.	Re 1/- per fingerling of 80-100 mm size	• Financial assistance will be extended for stocking of fingerlings in medium and large reservoirs at 50% of numbers stocked in the first year.
2	Training to fishermen on reservoir management		• Training up to for 5 days to the fishermen depending on the reservoirs. DA to fishermen @Rs.150 / Day, TA to fishermen- Rs 100 per day; Honorarium to the resource persons Rs. 500/-per day, TA - @Rs. 1000/- per programme; Implementing agency @Rs. 75 / day / member

**3. Coastal Aquaculture :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1)	(i) Construction of ponds for brackish water fin fish culture	Rs. 2.40 lakhs/ha	25% cost subject to a maximum of Rs. 0.60 lakhs/ha as subsidy.
	(ii). Additional infrastructure for brackish water finfish culture for modification of existing farms.	Rs. 2.00 lakhs/ ha.	25% cost subject to a maximum of Rs. 0.50 lakhs/ha as subsidy.
	(iii). Input assistance for brackish water fin fish culture.	Rs.3.00 lakhs/ ha. (subject to the approval of CIBA based on the production levels)	1. One time back ended subsidy of 25% to all farmers to a maximum of 0.75 lakhs/ha and 2. 30% subsidy in case of SC/STs to a maximum of Rs. 0.90 lakhs/ha.
	Input assistance for cage culture of brackish water fin fish	Rs. 7.00 lakhs / ha. (subject to the approval of CIBA /RGCA based on the production levels).	1. Back ended subsidy of 25% on the working capital for first crop with a ceiling of Rs. 1.75 lakhs/ha 2. Back ended subsidy of 30% on the working capital for first crop to SCs/STs with a ceiling of Rs. 2.10 lakhs/ha.





Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
2)	<b>Need Based Financial Assistance for development and demonstration of innovative/ new technologies</b>		
	1. For increasing fish production/ productivity as brood stock development,	Unit cost to be recommended by Central Fisheries Institute concerned.	Onetime 100% grant to the Central/State Government organizations/Federation.
	2. New species,	Unit cost to be recommended by Central Fisheries Institute concerned.	40% of the projectcost as promotional incentive on capital cost as back ended subsidy to the entrepreneurs.
	3. Low cost feed with high nutritive value,		
	4. New farming practices (cage/pen culture), etc.		
	5. Development of Diagnostic kits (including biotechnological kits)	Unit cost has to be approved by Central Fish. Institute concerned.	40% soft loan on capital investment through commercial banks to the entrepreneurs.
3)	Need based financial assistance for infrastructure development in coastal aquaculture (Aquatic Quarantine etc.)	Approval of Government of India is mandatory.	90% grant to Government Departments/Agencies.
4)	Need based financial assistance for Specific Pathogen Free shrimp nauplii production centres.	Rs. 25.00 lakhs for atleast 200 million nauplii production capacity/year	100% grant to Government Agencies
5)	Additional infrastructure for SPF shrimp seed hatcheries	Rs. 20.00 lakhs for 30 million PL20 capacity/year	90% to the Central/State Government Departments /Institutions;
6)	Assistance to Specific Pathogen Free shrimp culture farms for additional infrastructure for semi intensive /intensive farming.	Rs. 15.00 lakhs for 5 ha. w.s.a. and above	1. Back ended subsidy of 25% on the capital cost. 2. Back ended subsidy of 30% on the capital cost to SCs/STs

**4. Mariculture :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	Promotion of diversification by shrimp hatcheries to take up seed production of finfish species of commercial importance	Rs. 70 lakhs	20% subsidy on the unit cost not exceeding Rs. 14.0 lakhs/unit
2	Assistance for setting up of Open Sea cage culture units	Rs. 6.00 lakhs /cage	40 % back ended subsidy to fishermen groups and entrepreneurs with a ceiling of Rs. 2.40 lakhs /cage
3	Marine ornamental fish demonstration hatchery	Rs 83.2 lakh/unit	100% financial assistance to Govt institutions as per the guidelines of NFDB
4	Training on marine ornamental fish culture	100% grant	100% financial assistance to Govt. institutions as per the guidelines of NFDB
5	Assistance to Mussel/Oyster/clam culture/ other commercial shellfishes	1. for Mussel culture (rack culture: 30 m X 20 m rack of 1200 ropes of 1 m.): Rs. 1.90 lakhs (Rs. 1.41 lakhs on capital and Rs. 0.49 lakhs as recurring costs) 2. for Mussel culture (raft culture : 12 units of 5m X 5m rafts of 300 sq.m ( 600 ropes of 4m): Rs. 4.32 lakhs ( Rs. 2.81 lakhs on capital and Rs. 1.51 lakhs as recurring costs) 3. for edible Oyster and clam culture (rack culture of 300 sq.m area): Rs. 1.27 lakhs ( Rs. 0.38 lakhs on capital and Rs. 0.89 lakhs as recurring costs)	1. 25% back ended subsidy to Women SHG's, entrepreneurs on capital & recurring cost to all farmers and 2. 30% subsidy in case of SC/STs

**5. Seaweed Cultivation :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	Training and Demonstration	Daily allowance of Rs 150/ day /trainee to and fro travel, subject to a maximum of Rs 500 per trainee. Honorarium of Rs 500/day and actual to and fro travel, subject to a maximum of Rs.1000. Rs 75/ trainee/ day to the Implementing Agency.	100% Financial assistance as per the guidelines of NFDB
2	Establishment of Seaweed processing plants	Case to case basis	NFDB assistance in the form of equity to the tune of 20% of the investment costs.



## 6. Infrastructure: Fishing Harbours and Landing Centers:

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	Fishing Harbour	Need based	Existing fishing harbours owned by State/Central Govt. Departments, Maritime board/Port trust, NFDB would provide 100% financial assistance to landing centres owned by State/Central Govt. Departments. ,
2	Landing Centres	Need based	

## 7. Fish Dressing Centers and Solar Drying of Fish :

Sl No	Name of the Activity/Scheme	Unit Cost	Pattern of Assistance
1	Model Fish Dressing Centre	Up to Rs. 150.00 lakhs	(a)The NFDB will provide 90% grant to the Govt. Departments / Quasi Govt Organizations / Research Institutes (b) 40% soft loan at 5% interest rate to entrepreneurs
2	Setting up of Solar drying of fish units	Unit cost (i) up to Rs. 25.00 lakhs for 1000 Kg. and above, (ii) up to Rs.6.0 lakhs for 100 Kg.	(a)The NFDB assistance will be up to 90% grant to Government Departments / Quasi/ Government Organizations / Research institutes. (b) 25% subsidy (30% for SC/ ST & NE regions) to fishermen/ fisher women/SHGs/ entrepreneurs
3	Platform for Sun drying of fish	Unit cost limited to Rs.35,000/-	a) The NFDB assistance will be up to 90% grant to Government Departments / Quasi Government organizations/ Research Institutes  (b) 25% subsidy (30% for SC/ ST & NE regions) to fishermen/ fisher women/SHGs/ entrepreneurs
4	*Training and demonstration to fisherwomen on hygienic handling of fish and processing/ value addition	Daily allowance of Rs 150/ day /trainee to and fro travel, subject to a maximum of Rs 500 per trainee. Honorarium of Rs 500/day and actual to and fro travel, subject to a maximum of Rs.1000. Rs 75/ trainee/ day to the Implementing Agency.	100% Financial assistance as per the guidelines of NFDB

## 8. Domestic Marketing:

Sl No	Name of the Activity/Scheme	Unit Cost	Pattern of Assistance
1	Modernization of wholesale fish markets	Rs.250.00 lakhs/50 stalls; approximate area of 3.0 acres.	NFDB will provide 90% grant to Government Fisheries Departments Quasi Government Organizations, Local Civic Bodies, Research Institutes
2	Development / construction of new retail markets, complexes and retail outlets	Rs.50.00 lakhs to 100.00 lakhs for establishment of major retail markets (approx. 1.0 acre area, 20 outlets) and upto Rs. 50.00 lakhs for minor retail market (approx.0.5 acre area, 10 outlets)	(a) 90% grant to Govt. Dept. and Quasi Government Organizations. (b)20% subsidy on the capital cost to Entrepreneurs
3	New wholesale markets through private sector	Unit cost has to be decided and appraised on case to case basis.	Soft loan of 40% at 5% interest rate to Entrepreneurs through Commercial banks.
4	Establishment of modern fish retail outlet by NFDB	To be decided and appraised on case to case basis and on the local conditions. Normally, it may cost up to Rs.10 lakhs excluding the building cost.	NFDB will establish the retail outlets and will be leased/ rented to eligible entrepreneurs / self help groups / ex servicemen to manage the unit under PPP mode.
5	Setting up of retail fish Outlets	Up to Rs.10.00 lakhs	NFDB assistance will be in the form of subsidy @ 25 % of approved project cost to entrepreneurs (30% subsidy for SCs /STs/ NE regions).
6	Retailing by fisherwomen	Up to Rs.10.00 lakhs	The NFDB will provide a subsidy of 40% on the project cost to Fisherwomen who are involved in fish marketing and fisherwomen who are from fishermen community and members of local fishermen or fisherwomen co-operative societies
7	Cold chain development and processing of value added products	Unit cost has to be decided and appraised on case to case basis	The NFDB's assistance would be in the form of 40% soft loan at 5% interest rate to Entrepreneurs through commercial banks; Fisheries Federations and Corporations can avail the loan assistance directly from NFDB.





Sl No	Name of the Activity/Scheme	Unit Cost	Pattern of Assistance
8	Cold chain development (Equity 40%)	Unit cost has to be decided and appraised on case to case basis	NFDB assistance would be in the form of 40% equity of the capital investment to Entrepreneurs including individuals, firms, companies, registered associations, and registered societies
9	Campaign for promotion of fish products and consumption	Each proposal will be examined and appraised on case to case basis	100% grant to Government departments, Research institutions, and Quasi government organizations
10	Organization of fish festival/fish mela	Up to Rs 50.00 lakhs	NFDB will provide a maximum of 50% of the expenditure to Govt. departments / Quasi Government organizations

## 9. Technology Up-gradation:

### Criteria for selecting technology up gradation projects

- The proposed technology for up-gradation addresses a current problem in the field and would benefit a large number of farmers.
- The potential for up- scaling and repeatability of the upgraded technology as given in the project proposal is possible.
- The project clearly outlines the techno-economic viability and the expected enhanced profit and environmental impact if any.
- The project focuses on field demonstration and evaluation with minimum of testing in the laboratories and farms of the institutions.
- Attention has been paid to increase income generation beyond the existing levels
- Linkages with ongoing research, development and dissemination programmes are clear.

## 10. Human Resource Development Programme:

- A committee headed by the Chief Executive, NFDB would screen the proposals and assign the responsibility of conducting the training programmes identified at different levels.



**11. Deep Sea fishing and Tuna Processing :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
1	Development of indigenous Tuna Fishing Fleet	Unit cost Rs. 75 lakhs including gear component	NFDB contribute 25-33 percent of total cost of construction as equity participation
2	Human Resource Development	Daily allowance of Rs 150/ day /trainee to and fro travel, subject to a maximum of Rs 500 per trainee. Honorarium of Rs 500/day and actual to and fro travel, subject to a maximum of Rs.1000. Rs 75/ trainee/ day to the Implementing Agency.	100% Financial assistance as per the guidelines of NFDB
3	Up gradation of processing units	Case to case basis	Govt. Dept.Fishermen Federations /fishermen co operatives NFDB assistance in the form of 20-30% equity participation for ICAR/ Government institutions.

**12. Other Activities :**

Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
<b>A. Artificial Reefs/Fish Aggregating Devices</b>			
1	Artificial Reefs/ Fish Aggregating Devices	2.5 lakhs for structure	Fishermen and private entrepreneurs.
2	Training and Demonstration	Daily allowance of Rs 150/ day /trainee to and fro travel, subject to a maximum of Rs 500 per trainee. Honorarium of Rs 500/day and actual to and fro travel, subject to a maximum of Rs.1000. Rs 75/ trainee/ day to the Implementing Agency	Institutions with expertise on installation and operation of artificial reefs/fish aggregating devices would be preferred for providing assistance.
<b>B. Freshwater Ornamental Fisheries</b>			
1	Ornamental fish production- backyard hatcheries for women SHGS/ Fisher women cooperatives/ other house holds	1.0 lakh	50% of the unit cost as subsidy for members of women SHGs and fisherwomen cooperatives and 25% subsidy to any individual household and 30% subsidy for S.C/S.T/N.E



Sl. No.	Name of the Activity/ Scheme	Unit Cost	Pattern of assistance
2	Medium scale unit for ornamental fish production by the entrepreneurs	8.00 lakhs	NFDB provides 25% subsidy to entrepreneurs and in case of S.C./S.T/N.E to whom the subsidy is 30% of the unit cost.
3	Integrated ornamental fishery units with butcheries for ornamental fishes	15.00 lakhs	NFDB provides 90% grant to State Fisheries Department and 25% subsidy to the entrepreneurs for setting up to integrated ornamental fisheries unit
4	Setting up of Aquarium fabrication units- women SHGs/ Fisher women cooperatives/ others	1.0 lakh	NFDB provides 50% of the unit cost as subsidy for members of women SHGs and fisher women cooperatives and 25% subsidy to any individual and S.C./S.T/N.E the subsidy is 30 % for establishment of fabrication of aquaria unit.
5	Training and Demonstration	Daily allowance of Rs 150/ day /trainee to and fro travel, subject to a maximum of Rs 500 per trainee. Honorarium of Rs 500/day and actual to and fro travel, subject to a maximum of Rs.1000. Rs 75/ trainee/ day to the Implementing Agency	Members of women SHGs/ Fisherwomen cooperatives and any individual setting up of ornamental units. Willing to take up the activity in accordance with the guidelines of NFDB.





## VI. DETAILS OF THE BUDGET

The Government of India has released an amount of Rs. 226.90 Crores to the NFDB since 2006-07 to 2009-10 as per the statement given below. Out of Rs. 226.90 Crores released, an amount of Rs. 187.55 Crores was released by the Board to various states and organizations for taking up of fisheries developmental activities during the last four years.

S.No.	Year	Budget Allocation	Amount Received	Expenditure incurred (Rs. in crores)
1	2006-07	30.00	30.00	3.66
2	2007-08	100.50	50.00	27.09
3	2008-09	75.00	46.90	71.28
4	2009-10	135.00	100.00	85.52
	<b>TOTAL</b>	<b>340.50</b>	<b>226.90</b>	<b>187.55</b>

## VII. ACHIEVEMENTS DURING 2009-10

During the year 2009-10, the Board has extended substantial funding support for promoting intensive aquaculture, reservoir fisheries, infrastructure development and domestic markets. The details of support for the activities is as given below:

S.No.	Activities	2009-10 (Rs. in crores)
1	Intensive Aquaculture in ponds and tanks	24.23
2	Reservoir Fisheries	19.50
3	Coastal Aquaculture	2.85
4	Mariculture	0.02
5	Deep Sea fishing and tuna processing	0.20
6	Infrastructure for Post Harvest Processing	18.23
7	Fish dressing Centres and Solar Drying of Fish	0.94
8	Domestic Marketing	13.50
9	Other schemes	1.92
10	HRD	0.91
11	Administrative expenses	3.20
	<b>TOTAL</b>	<b>85.52</b>



## VIII. DETAILS OF SCHEMES IMPLEMENTED

### A) Intensive aquaculture in Ponds and Tanks:

During 2009-10, the NFDB has provided the financial assistance in the form of subsidy/grant for taking up of various activities by the implementing agencies under Intensive Aquaculture in Ponds and tanks scheme as shown below.

Sl. No	Activity	Physical	Financial (Rs. in lakhs)
1.	Construction of new fish/prawn ponds including onetime input costs	3065.11 Ha	1310.68
2	Construction/renovation of Government Fish/prawn seed hatcheries	24 Units	163.13
3	Renovation/Upgradation of Government Fish seed farms	43 Farms	437.77
4	Establishment of fish feed mills	3 Units	202.25
5	Construction of raceways for trout fish culture including onetime input costs	275 Units	32.84
6	Renovation and input costs for aquaculture in Kule lands (paddy fields)	105.90 Ha	3.17
7	Training of farmers in intensive aquaculture practices in ponds & tanks (inland fisheries)	8385 trainees	165.62
8	Technology Up-gradation	3 projects	88.09
9	Consultancy Services for Evaluation of implementation of activities and other activities	2 States	20.22
	<b>Total</b>		<b>2423.43</b>



**Details of state-wise releases made under Intensive Aquaculture in ponds and tanks during the year 2009-10**

S. No.	Name of the state	Amount released (Rs. in lakhs)
1	Andhra Pradesh	281.74
2	Arunachal Pradesh	638.16
3	Assam	87.14
4	Chhattisgarh	100.88
5	Jharkhand	10.52
6	Jammu & Kashmir	351.71
7	Karnataka	150.58
8	Kerala	3.17
9	Madhya Pradesh	0.98
10	Maharashtra	67.72
11	Manipur	383.44
12	Mizoram	6.63
13	Nagaland	148.53
14	Orissa	22.32
15	Sikkim	32.84
16	Tripura	44.20
17	Uttar Pradesh	72.98
18	Consultancy & Others	20.22
<b>TOTAL</b>		<b>2423.43</b>

Substantial support was extended towards pond construction and construction/ renovation of hatcheries. Among various states, North Eastern states of India such as Arunachal Pradesh, Manipur and Nagaland and in the mainland Andhra Pradesh, Chhattisgarh, Karnataka have received financial support from the NFDB.



**i. Construction of new fish/prawn ponds:**

The NFDB has sanctioned Rs.1310.68 lakhs as subsidy to 7 states for construction of fish/prawn ponds including one time input costs for inland fish production by adopting Intensive Aquaculture techniques in 3065.12 hectares of water spread area as detailed below:

S. No.	Name of the state	Area in hectares	Amount released (Rs. in lakhs)
1	Andhra Pradesh	60.77	40.63
2	Arunachal Pradesh	798.10	604.89
3	Assam	220.75	68.54
4	Karnataka	238.91	117.71
5	Manipur	1661.09	373.74
6	Nagaland (Fish & prawn)	85.50	98.54
7	Mizoram	2 <sup>nd</sup> instalment of 2008-09	6.63
	<b>Total</b>	<b>3065.12</b>	<b>1310.68</b>

**ii. Construction/renovation of Fish/prawn seed hatcheries:**

The NFDB has sanctioned Rs.163.13 lakhs for construction/renovation of 24 units of Fish seed hatcheries (FSH) by the Government/Quasi government organisations in the form of onetime grant for increasing fish/prawn seed production. The state-wise details of the grant extended by the Board are as shown below.

Sl. No	State	Activity	No.of units	Amount (Rs. in lakhs)
1	Assam	Renovation of 1 FSH & Construction of 3 Prawn seed hatcheries	4	17.10
2	Arunachal Pradesh	Renovation of Government FSH	1	0.57
3	Chattisgarh	Renovation of Government FSH	13	43.43
4	Jammu & Kashmir	Establishment of 3 trout fish seed hatcheries and renovation of 1 carp hatchery under Government sector	4	94.83
5	Nagaland	Renovation of Government FSH	2	7.20
	<b>Total</b>		<b>24</b>	<b>163.13</b>



It is expected that these projects would produce an additional 78 million fish fry, 75 million prawn post larvae and 2.5 million trout fish fry.

### iii. Renovation/Upgradation of Government Fish seed farms:

Various state Governments/quasi government organizations have availed the NFDB financial assistance of Rs.437.77 lakhs as onetime grant for up-gradation/renovation of existing fish seed farms by constructing/renovating 229.22 hectares of fish seed rearing ponds.

Sl. No	State	No. of Farms	Area (ha)	Amount (Rs in lakhs)
1	Andhra Pradesh	18	89.30	241.11
2	Arunachal Pradesh	6	9.70	17.46
3	Chhattisgarh	6	37.76	49.50
4	Jammu & Kashmir	5	39.50	66.88
5	Karnataka	5	17.96	32.07
6	Nagaland	3	35.00	30.75
	<b>Total</b>	<b>43</b>	<b>229.22</b>	<b>437.77</b>

An additional quantity of 31 million fish fingerlings could be produced through renovation, upgradation of fish seed farms.

### iv. Establishment of fish feed mills:

The NFDB has provided Rs.190.00 lakhs to the Government of Jammu & Kashmir as onetime grant towards establishment of a trout fish feed mill in addition to Rs.310.00 lakhs released during the year 2008-09. The NFDB has also assisted the Maharashtra State for establishing a magur fish feed mill. A private farmer from the Assam State has availed NFDB assistance for setting up of a formulated fish feed unit. The details are as shown below:

S. No	State	Activity	No. of Units	Capacity	Amount (Rs. in lakhs)
1	Assam	Formulated Fish Feed mill	1	2.0 tons/day	1.50
2	Jammu & Kashmir	Trout feed mill	1	5 tons/hour	190.00
3	Maharashtra	Magur fish feed unit	1	1.2 Quintal/ day	10.75



**v. Raceway units for trout fish culture:**

An amount of Rs.32.84 lakhs was released to the Department of Fisheries, Government of Sikkim as subsidy to 60 private farmers for construction of the Trout fish raceways and input costs for 275 units.

**vi. Aquaculture in Kole lands (paddy fields):**

An amount of Rs.10.82 lakhs was sanctioned as subsidy for renovation of 105.90 hectares of Kole lands (paddy fields) and one time input costs for taking fish/prawn culture as an alternate crop, in Kerala.

**vii. Training and Demonstration:**

Rs.165.62 lakhs was sanctioned by the board to 10 state fisheries departments/agencies for imparting training to 8385 fish farmers on intensive aquaculture in ponds and tanks, quality fish seed production and hatchery management, integrated fish farming, composite fish culture, fresh water prawn farming, seed production and culture of economically important fish and prawns and disease management.

Except in Jharkhand and some KVK's the training has been provided to the farmers to whom subsidy was extended for construction of new fish ponds under NFDB/ FFDA schemes.

S. No	Name of the state	No. of trainees	Amount released (Rs. in lakhs)
1	Arunachal Pradesh	871	15.24
2	Chhattisgarh	500	7.95
4	Jharkhand	604	10.52
5	Karnataka	50	0.80
6	Madhya Pradesh	50	0.98
7	Nagaland	660	12.05
8	Orissa	50	0.90
9	Tripura	1600	44.20
10	Uttar Pradesh	4000	72.98
	<b>Total</b>	<b>8385</b>	<b>165.62</b>

### viii. Technology upgradation programmes :

The NFDB has supported 3 projects of ICAR Fisheries Research Institutes and KVK's under technology upgradation for increasing fish seed production and to create fisheries management models.

Sl. No	Name of the Project	Project cost (Rs. in Lakhs)	Funds released (Rs. in Lakhs)	Institute
1	Quality seed production and stock upgradation of carps through use of cryopreservation technology in selected hatcheries of India	27.86	21.42	CIFA, Bhubaneswar
2	Seed Production and grow out culture of indigenous catfish, magur, through training and demonstration in north eastern states	28.98	9.7	KVK, Bishnupur
3	Development of community participated enhanced fisheries management model for the Chaur (flood plains) and Maun (Ox-bow lakes).	66.77	56.97	CIFE, Mumbai.
<b>TOTAL</b>		<b>123.61</b>	<b>88.09</b>	



Construction of new fish ponds in Tamirisa Village, Krishna Dist. Andhra Pradesh



Fish ponds under construction in Yackuli, Arunachal Pradesh

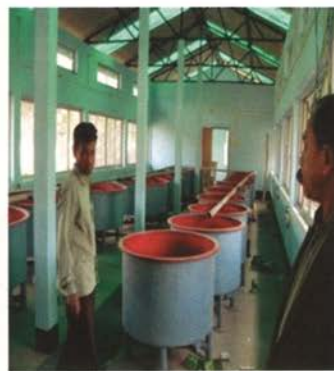




Fish seed hatchery at Maithon,  
West Bengal



Fish seed hatchery at Dibrugarh,  
Assam



Freshwater prawn hatchery in  
Guwahati, Assam



Fish feed mill established at Golaghat, Assam



Fish feed mill established at Karda, Maharashtra



Inauguration of Fish Semen Cryobank  
at State Government Fish Farm,  
Kausalyaganga, Orissa



Demonstration of Utilization of carp  
cryomilt at State Government Fish Farm,  
Kausalyaganga, Orissa



**ix. Evaluation of implementation of the NFDB schemes through NIRD :**

The National Institute of Rural Development (NIRD), Hyderabad has been requested to evaluate the implementation of Intensive Aquaculture in Ponds and Tanks in the States of Mizoram and Manipur for the funds sanctioned in the year 2008-09. An amount of Rs.10.36 lakhs was released to the NIRD for taking up this study. The broad findings of the study indicate that the funds are being used appropriately. The evaluation is under progress.

**B) Reservoir Fisheries Development :**

An amount of Rs 1950.21 lakhs was released to 15 states for fish seed stocking in reservoirs covering an area of 3,05,134.87 hectare and to impart training to 6975 members in reservoir fishery management. This being a major programme of NFDB, there was very good response from Karnataka, Chhattisgarh, Maharashtra and Andhra Pradesh. There has been a positive impact of fish seed stocking in reservoirs as witnessed through enhancement of average reservoir fish production for 10-15 kg/ha to about 40 kg/ha/year.

S.No	Name of the State	Amount released (Rs. in lakhs)
1	Andhra Pradesh	24.72
2	Goa	9.46
3	Himachal Pradesh	162.68
4	Karnataka	662.16
5	Maharashtra	259.49
6	Chhattisgarh	296.48
7	Mizoram	45.41
8	Nagaland	23.00
9	Sikkim	0.50
10	Tamil Nadu	197.37
11	Tripura	21.00
12	Uttar Pradesh	4.33
13	West Bengal	58.17
14	Jharkhand	162.34
15	Punjab	4.47
16	Other Activities	18.62
	<b>TOTAL</b>	<b>1950.21</b>

**i. Fish Seed Stocking in Reservoirs:**

Financial assistance of Rs 1834.91 lakhs was released to 15 states towards stocking of fish seeds of Indian Major Carps of Size 80-100 mm in reservoirs covering an area of 305135 hectares is detailed as below:

S.No	Name of the State	No. of reservoirs	Area (ha)	Seed stocked (in lakhs)	Amount released (Rs in Lakhs)
1	Andhra Pradesh	6	59348	24.719	24.72
2	Goa	3	473	9.46	9.46
3	Himachal Pradesh	3	27200	280	140.00
4	Karnataka	65	84300	662.19	662.16
5	Maharashtra	49	39718	448.95	224.47
6	Chhattisgarh	22	42334	316.46	285.81
7	Mizoram	2	5000	37.5	43.75
8	Nagaland	1	2258	23	23.00
9	Sikkim	1	600	0.5	0.50
10	Tamil Nadu	23	13630	159.74	179.32
11	Tripura	1	3775	18.875	18.88
12	Uttar Pradesh	2	1730	8.65	4.33
13	West Bengal	33	2377	47.51	51.70
14	Jharkhand	16	21727	162.34	162.34
15	Punjab	7	665	8.9424	4.47
<b>Total</b>		<b>234</b>	<b>305135</b>	<b>2208.83</b>	<b>1834.91</b>

**ii. Training on Reservoir Fisheries Management:**

The NFDB has sanctioned Rs 66.97 lakhs to the Department of Fisheries of 6 states towards training and demonstration in reservoir fishery management practices as detailed below:

S. No	Name of the State	No. of trainees	Amount released
1	Himachal Pradesh	2700	22.68
2	Maharashtra	700	11.78
3	Chhattisgarh	605	10.67
4	Mizoram	200	1.66
5	Tamil Nadu	2140	18.05
6	Tripura	200	2.13
<b>Total</b>		<b>6545</b>	<b>66.97</b>



### iii. Technology upgradation programmes/ Pilot projects :

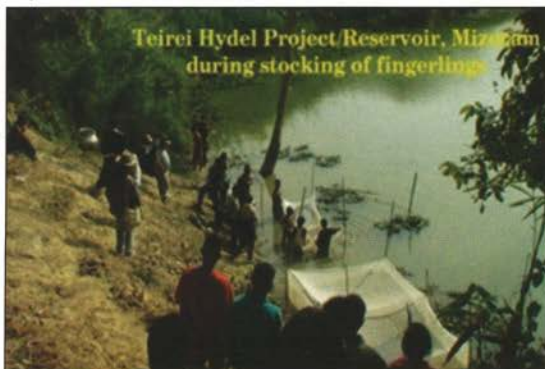
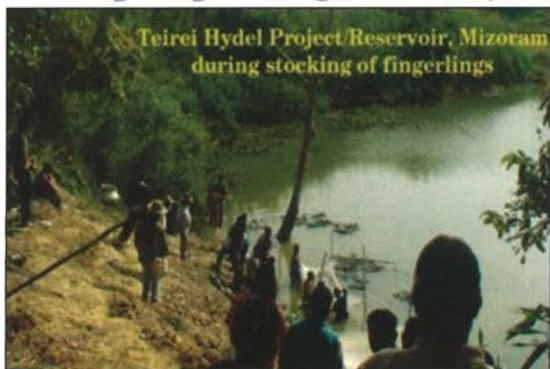
The NFDB has funded Central Institute of Fisheries Education, Mumbai and Department of Fisheries, Government of West Bengal for implementing the projects to demonstrate technologies for fish production enhancement through community approach.

Sl. No	Project	Project cost (Rs. in Lakhs)	Funds released (Rs. in Lakhs)	Institute
1	Cage rearing and grow out of Indian Major Carp in 2 units of cages in Coal pits on pilot basis in Burdwan district, West Bengal.	6.47	6.47	Department of Fisheries, Govt of West Bengal
2	Community based reservoir fisheries management in Dimbhe reservoir	30.73	23.24	CIFE, Mumbai
<b>TOTAL</b>		<b>37.2</b>	<b>29.71</b>	

### iv. Fish fingerling stocking at Serlui B Reservoir in Mizoram and Teirei Hydel Project, Mizoram :



### Fish fingerling stocking at Teirei Hydel Project in Mizoram







### Fish Fingerling stocking at Sathanur Reservoir in Tamil Nadu State



### Fish Seed Stocking at Gangrel Reservoir, and Kshirpani Reservoir of Chhattisgarh State.



### Fish Fingerling Stocking in Maithon Reservoir by Damaodar Valey Corporation, Kolkata



## Fish Fingerling stocking in Chandil Reservoir, Jharkand



### C) Coastal Aquaculture :

An amount of Rs. 285.22 lakhs was released to 4 states towards the following activities:

1. Training and demonstration to 1180 beneficiaries
2. Demonstration of Asian Sea bass (*Lates calcarifer*) farming in pond culture system by the CIBA, Chennai.
3. Prospective study on marketing and value chain improvement strategies for promoting Asian Seabass by the CIBA, Chennai
4. Developing infrastructure for Aquatic Quarantine Facility at Chennai by the RGCA.

The state wise funds release is as follows:

S. No.	Name of the state	Amount released (Rs. in Lakhs)
1	Andhra Pradesh	5.09
2	Karnataka	1.04
3	Maharashtra	2.78
4	Tamil Nadu	265.57
5	West Bengal	10.74
	<b>TOTAL</b>	<b>285.22</b>

#### i. Training and demonstration:

The NFDB has extended financial assistance of Rs. 19.65 lakhs to different agencies in 4 states for conducting training programmes on good management practices in coastal aquaculture, shrimp seed rearing, crab fattening in the backyard and sustainable poly culture in brackish water farms to cover 1180 beneficiaries. The details of statewise fund release and beneficiaries is as below:



S. No.	Name of the state	No. of trainees	Amount released (Rs. in Lakhs)
1	Andhra Pradesh	320	5.09
2	Karnataka	60	1.04
3	Maharashtra	200	2.78
4	West Bengal	600	10.74
	<b>TOTAL</b>	<b>1180</b>	<b>19.65</b>

## ii. Demonstration of Sea bass farming in pond culture systems :

The NFDB has funded the Central Institute of Brackishwater Aquaculture (CIBA), Chennai to demonstrate techno economic viability of Seabass (*Lates calcarifer*) culture in farmer's ponds under the Technology Upgradation scheme. The project with an outlay of Rs. 151.56 lakhs has to demonstrate seabass culture in farmers' ponds one each in Tamil Nadu, Andhra Pradesh and Maharashtra States for 3 consecutive crops. A first instalment of Rs. 54.21 lakhs was released during 2008-09. In the demonstration of first crop, a production of 3.5 tons/ hectare of seabass was achieved in Andhra Pradesh. The crop in other demonstration sites is in progress. The second instalment Rs. 40.00 lakhs was released for the demonstration project in the year 2009-10. Efforts are being made to spread this farming technology in about 200 hectares during the next financial year. CIBA has identified interested farmers in Nellore, Krishna and West Godavari Districts of Andhra Pradesh for undertaking Seabass culture. Planning for seed and feed requirement and cropping season is being worked out by them.



A haul of seabass harvested from the demonstration farm at Nellore, Andhra Pradesh



Shri. Hanumantha Rao Naidu, farmer of the demonstration site at Nellore , Andhra Pradesh with harvested seabass along with Dr. ART. Arasu, Head, FCD, CIBA, Chennai



### iii. Study on marketing and value chain improvement strategies for promoting Asian Seabass by CIBA, Chennai :

The NFDB has funded Rs. 13.60 lakhs to the Central Institute of Brackishwater Aquaculture (CIBA), Chennai to undertake a “Prospective study on marketing and value chain improvement strategies for promoting Asian Seabass”. The objectives of the study includes identification of existing domestic market situation for seabass, tracing of different marketing channels, marketing efficiency and evaluation of existing arrangements along with improvements required and analysis of global demand and supply factors for export marketing. Further, the study covers the economics of production of seabass in different categories of farms based on the farming technologies currently being undertaken by CIBA and MPEDA; to identify beneficiaries to adopt the new technology which needs further refinement to ensure reduction in the cost of production; to study the issues in sustainable production and marketing of Asian Seabass and policy options for further improvements. Designing the required market support mechanisms for farmed seabass would be the major outcome. The total duration of the study is 18 months.

### iv. Support for establishment of Aquatic Quarantine facility at Chennai :

NFDB, in association with Rajiv Gandhi Centre for Aquaculture (RGCA), unit of MPEDA has established an Aquatic Quarantine Facility (AQF) at Neelankarai, Chennai for regulated import of SPF- *Litopenaeus vannamei* brood stock at a cost of Rs. 3.49 crores.

During the financial year 2008-09, the NFDB has released Rs. 100.00 lakhs to RGCA. The AQF has a capacity to hold 1250 SPF shrimp brood stock. In the year 2009-10, NFDB has released Rs. 152.53 lakhs to build the infrastructure and Rs. 59.44 lakhs as one time revolving grant to meet the working capital requirements of the AQF. 15,000 SPF vannamei brood stock were imported and quarantined for distribution to 24 hatcheries during the year.



Outside view of the AQF



View of the Quarantine Area inside the AQF



SPF *L. vannamei* in the AQF

## D) Mariculture :

### i. Demonstration of Open sea cage culture to fishermen :

To demonstrate techno-economic viability of open sea cage culture to the fishermen, NFDB has extended financial assistance of Rs. 115.00 lakhs to the Central Marine Fisheries Research Institute (CMFRI), Kochi for taking up of culture of Asian sea bass, lobsters etc. in different locations in the maritime states.

Fourteen cages were deployed at various locations by involving fishermen groups. Fingerlings of seabass, juvenile shrimp and lobsters were stocked. First harvest of seabass in the cage deployed at Balasore coast, Orissa was harvested and a production of about 4 tons was obtained in 8 months. Fattening of lobsters was taken up near Veraval and Kanyakumari which yielded about 800- 1000 kg of lobsters/ cage in 6-8 months period. With this success, it is proposed to support establishment of a battery of 25- 30 cages, in Karwar and Kanyakumari coast respectively during the year 2010-11.



View of harvested lobsters from  
a cage at Veraval,



View of the harvested seabass  
at Balasore, Orissa

## E) Infrastructure for Post Harvest Processing :

The Board has sanctioned of Rs. 1823.40 lakhs towards the following to promote the coastal fisheries.

- i. A nylon net making plant at Azheekal, Kannur, Kerala by Matsyafed.
- ii. Modernization of Fishing Harbours in Karnataka and Kerala
- iii. Establishment of SPF shrimp seed Multiplication Centre at Molapolam village of Srikakulam district, Andhra Pradesh.



i. **Nylon net making unit:**

The MATSYAFED, Kerala has proposed to set up a fish net factory at Azheekal, Kannur district with an installed capacity of 525 tons/ annum of fishnet of different specifications. The project is expected to meet the increasing demand of fish net for traditional fishing sector and mechanised sector. NFDB has sanctioned Rs. 10.00 crores in the form of a soft loan for this project. The construction of the building has been completed and the process of importing the machinery is in progress. The project is expected to be completed by March, 2011.



View of Net making factory



Machine Room

ii. **Modernisation of fishing harbours:**

The NFDB has sanctioned Rs. 770.41 lakhs to Karnataka and Kerala states to improve the fish handling, storage and marketing facilities in the harbour complex besides water supply, lighting, toilet facilities and drainages etc.

A local fishing harbour management committee for these harbours was constituted for proper management of these harbours.

S. No.	Name of the state	Facility	Amount sanctioned (Rs. in Lakhs)	Amount released (Rs. in Lakhs)
1	Kerala	Puthiyappa fishing harbour	280.00	280.00
2	Kerala	Kayamkulam fishing harbour	259.00	130.00
3	Karnataka	Honnavar fishing harbour	348.79	348.79
4	Karnataka	Karwar fishing harbour (Additional assistance)	11.62	11.62
	<b>TOTAL</b>		<b>899.41</b>	<b>770.41</b>





Modernized fishing harbour in Karwar, Karnataka

### iii. Construction of SPF *Penaeus monodon* Multiplication Centre:

India is one of the top shrimp producing countries of the world and the Black Tiger shrimp *Penaeus monodon* is the native species cultured in India on a commercial scale. Owing to the incidence of diseases, the industry witnessed a sudden collapse during mid nineties. Due to the shortage of disease-free shrimp brood stock, the shrimp industry was finding it difficult to produce disease-free seed of *P. monodon* in required quantities. NFDB has decided to establish a SPF- *P. monodon* Shrimp seed Multiplication Centre (M.C), with the technology from M/s Moana Technologies Hong Kong Ltd. A MoU in this regard was signed between the NFDB and M/s Moana Technologies HK in the presence of the Hon'ble Union Agriculture Minister Shri Sharad Pawar on 20<sup>th</sup> March 2008. To establish the M.C, the NFDB has acquired 97.45 Acres of land at Mulapolam village of Sompeta Mandal, Srikakulam District, Andhra Pradesh.

The Central Public Works Development (CPWD) has submitted the preliminary estimates amounting to Rs. 51.02 crores towards execution of MC Project including all civil, mechanical, electrical components and equipments as well as for site development works and sea water intake system. To have a better connectivity to the project site, Government of Andhra Pradesh has accorded sanction for Rs. 153.00 lakhs for upgrading the main connecting road from the old NH 5 to Mulapolam village. An approach road from Mulapolam village to MC Project site was laid at a cost of Rs. 43.80 lakhs by the NFDB through the CPWD.

In 14<sup>th</sup> Executive Committee meeting of NFDB held on 07/12/2009 at New Delhi, it was decided to constitute a committee comprising of the following members to look in to the technical and financial aspects of the present arrangement and other possible options for implementation of SPF Project in case the project cannot be implemented through M/s. Moana Hong Kong Ltd (MHKL) and M/s. Moana Technologies (India) Pvt. Ltd (MTIPL). Accordingly, a committee with following members has been constituted.

1. Chief Executive, NFDB, Hyderabad
2. Chairman, MPEDA, Kochi
3. Joint Secretary (Fisheries), DADF, MoA, New Delhi
4. Director (Finance), DADF, MoA, New Delhi
5. Member Secretary, Coastal Aquaculture Authority, Chennai
6. Advisor (Agriculture), Planning Commission, New Delhi

The committee met twice and in the second meeting held on 3<sup>rd</sup> March, 2010 the committee decided the following:-

1. The process of setting up of SPF - MC Project with the technical collaboration of the MHKL will be continued as per the existing MoA. However, for this, MHKL should inform NFDB about its financial position through duly audited statements and by the way of completing the restructuring of the MTIPL without any further delay.
2. It was further decided to go ahead with the tendering process with the CPWD. However, a discussion with regard to whether to set up of the project in modular phases or, the entire project in one go may be taken after looking into techno-economical aspects.
3. In order to allow the jump start programme to continue, MHKL may go for some limited arrangement with M/s. Santir Aqua on this issue. However, MHKL can also explore possibility for alternate arrangement for the future continuation of the JSP, may be at a different site.



Approach road to SPF Centre, Srikakulam constructed by CPWD



### Jump-Start Programme (JSP):

To bring awareness among the farmers for using SPF seed for shrimp culture for enhanced production by adopting good management practices under bio-security measures, the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Govt. of India vide Lr. No.35029/3/2007-Fy (T&A) Dated 26 March, 2007, approved the proposal of M/s. Santir Aquatic Private Ltd, Visakhapatnam dated 20/03/2007, for import of 1, 50, 000 numbers of SPF Post Larvae of *Penaens monodon* from the Nucleus Breeding Center of M/s Moana Technologies, Hawaii, USA, as a part of establishment of a Multiplication Center (MC) for production and supply of SPF seed of *P. monodon*.

With the permission of Government of India, SPF shrimp seed from M/s. Moana's NBC, Hawaii were imported by M/s. Moana Technologies India Pvt. Ltd., (MTIPL) to India in nine spells from 5<sup>th</sup> May, 2007 to 14<sup>th</sup> August, 2009. Totally 3.00 lakh SPF Post Larvae (PL) were imported and reared in two bio-secured farms. During 2009-10, 45.74 million SPF PL were supplied to the farmers of Andhra Pradesh, Gujarat, Tamil Nadu and Maharashtra States.

The demonstration conducted during the year has proved that the usefulness of SPF seed in term of good survival, growth and quality. In all 131 demonstrations were undertaken and the average production is about 2.70 tons/hectare.

### **F. Deep sea fishing and tuna processing:**

An amount of Rs. 20.00 lakhs was released to the Fishery Survey of India (FSI), Mumbai to provide onboard training to 120 fishermen in deep sea fishing and tuna processing by utilizing the FSI vessels. The training was conducted in 4 batches and the feed back indicted the usefulness of the training for improving tuna fishing skills and manintaining the quality of tuna caught.



Fishermen undergoing training in tuna long lining on board FSI vessel



**G. Domestic Marketing :**

In the year 2009-10, under domestic marketing, emphasis was given to modernize the existing fish markets and to construct new fish markets through various agencies like municipalities, state fisheries departments, federations and corporations. During 2009-10, an amount of Rs. 2673.95 lakhs was sanctioned and Rs. 1349.98 lakhs was released to various implementing agencies for modernization/construction of whole/ retail fish markets, retail fish outlets, establishment of model fish dressing centres, training on hygienic handling of fish production of value added fish products, organization of fish festivals, campaign and publicity. The state wise funds released is as below:

S. No.	Name of the state	Amount released (Rs. in lakhs)
1	Andhra Pradesh	624.18
2	Assam	7.84
3	Karnataka	1.00
4	Kerala	16.00
5	Maharashtra	1.05
6	Nagaland	23.50
7	New Delhi	3.79
8	Tamil Nadu	207.78
9	Uttar Pradesh	10.00
10	West Bengal	450.00
11	Other Institutes	4.84
	<b>TOTAL</b>	<b>1349.98</b>

**i. Modernization/construction of whole sale fish markets and retail markets:**

The NFDB has extended financial assistance of Rs. 1172.38 lakhs to Tamil Nadu, Andhra Pradesh and West Bengal for modernization/construction of 20 whole sale/retail fish markets as detailed below. The modernisation work has been initiated by most of the beneficiaries and is likely to be completed in another 10-12 months.

Sl. No	Implementing agency	Amount sanctioned (Rs. in lakhs)	Amount released (Rs. in lakhs)
1	Municipal Corporation, Nellore, Andhra Pradesh	108.00	43.20
2	Municipal Corporation, Rajahmundry, Andhra Pradesh	158.20	79.10
3	Municipal Corporation, Eluru, Andhra Pradesh	305.10	152.55
4	Municipal Corporation, Guntur, Andhra Pradesh	369.00	184.50
5	Municipal Corporation, Kakkinada, Andhra Pradesh	154.80	77.40
6	Cuddalore Municipality, Tamil Nadu	146.25	73.13
7	TNFDC, Chennai, Tamil Nadu	225.00	112.50
8	BENFISH, West Bengal	900.00	450.00
	<b>TOTAL</b>	<b>2366.35</b>	<b>1172.38</b>



Whole sale fish market under construction  
at Nellore, Andhra Pradesh



Whole sale fish market under construction  
at Rajgunj, West Bengal

## ii. Setting up retail fish outlets:

The NFDB has released Rs.36.96 lakhs to the states viz., Tamil Nadu, Andhra Pradesh and Nagaland for the establishment of 9 fish retail outlets as shown below:-





Sl. No	Implementing Agency	No of units established	Amount sanctioned (Rs. in Lakhs)	Amount released (Rs. in Lakhs)
1	The Managing Director, TNFDC, Chennai	5	45.00	22.50
2	M/s Suryamitra Exim (P) Ltd, Bhimavaram, AP	1	0.39	0.39
3	Dept of Fisheries, Government of Nagaland	3	27.00	13.50
	<b>TOTAL</b>	<b>9</b>	<b>72.39</b>	<b>36.39</b>



Retail Fish Markets at Kohima, Nagaland



Retail Fish outlet developed by TNFDC, Tamil Nadu

### i. Training on hygienic handling of fish and preparation of value added fish products:

The Board has sanctioned of Rs. 38.62 lakhs to different implementing agencies in 3 states for imparting training on hygienic handling of fish. The expertise available with fisheries colleges, fisheries federations and National Institute for Micro, Small and Medium Enterprises, Hyderabad (Ni-msme) were utilized to train 3825 fisherwomen/ entrepreneurs.

Sl. No	State	Implementing agency	No of trainees	Amount released (Rs. in Lakhs)
1	Andhra Pradesh	College of Fisheries, Nellore	300	5.73
		Ni-msme, Hyderabad	170	1.07
		AFCOF, Andhra Pradesh	3000	28.25
2	New Delhi	FISHCOPFED, New Delhi	305	2.53
3	Maharashtra	Dr.B.S. Konkan Krishi Vidyapeeth, Ratnagiri	50	1.05
		<b>TOTAL</b>	<b>3825</b>	<b>38.63</b>





Training on hygienic handling of fish and production of value added fish products at Fisheries College, Muthukur, AP.



Training on hygienic dry fish production at 24Parganas, West

#### i. Organization of fish festivals and fish melas:

The NFDB has extended/ sanctioned of Rs. 87.49 lakhs towards organizing fish festivals and fish melas in the following states during the year 2009-10 as per the details given below.

Sl. No	Name of the State	Implementing agency	Amount (Rs. in Lakhs)
1	Andhra Pradesh	INFISH-2009, NFDB, Hyderabad	52.00
2	Tamil Nadu	India International Seafood Show 2010, MPEDA, Chennai	0.65
3	Karnataka	KVAFSU, Bidar	1.00
4	Kerala	NIFPHTT, Kochi	1.00
5	Kerala	International Aqua Show-10, FIRMA, Kochi	15.00
6	Uttar Pradesh	The Director of Fisheries, Govt of Uttar Pradesh	10.00
7	Assam	Assam Matsya Mahotsav 2010, Department of Fisheries, Assam	7.84
		<b>TOTAL</b>	<b>87.49</b>

**a. NFDB participated in the FISHFEST 2010 organized at Motimahal Lawns, R.P. Marg, Lucknow, Uttar Pradesh during 29 – 31, January 2010.**



Shri Dharmaraj Nishad, Hon'ble Minister for Fisheries, Government of Uttar Pradesh visited the NFDB Stall



Dr. P. Krishnaiah, Chief Executive, NFDB distributing the prizes during the valedictory function.



Dr. P. Krishnaiah, IAS, Chief Executive, NFDB, delivering the valedictory address.



Fish food stall displayed at the FISHFEST 2010.

**b. NFDB participated in the Assam Matsya Mahotsav 2010 organized by the Department of Fisheries, Government of Assam from 31-01-2010 to 01-02-2010 at Guwahati, Assam.**



Arch at the entrance of the Assam Matsya Mahotsav 2010



NFDB Stall at the exhibition





Shri Tarun Gogoi, Hon'ble Chief Minister of Assam lighting the lamp during the inauguration of the Matsya Mahotsav 2010.



Audience in the inaugural function.

#### v. Campaign and publicity:

An amount of Rs. 10.00 lakhs was sanctioned to the Department of Fisheries, Government of Nagaland for conducting campaign on promotion of fish products and fish consumption.

#### Indian Fish Festival (INFISH – 2009)

The National Fisheries Development Board (NFDB), organized the first Indian Fish Festival – INFISH 2009 from 11th to 13th July 2009, at the People's Plaza, Necklace Road, Hyderabad, to showcase the production and processing technologies in fisheries and to promote ornamental fisheries and fish consumption. This was a maiden attempt by the Board in organizing such a mega event.

Shri Sharad Pawar, Hon'ble Union Minister for Agriculture, Consumer Affairs, Food & Public Distribution, Government of India inaugurated the three day festival on 11 July '09 in the august presence of Prof. K V Thomas, Hon'ble Union Minister of State for Agriculture and Consumer Affairs, Food and Public Distribution; Shri K. Pardhasaradhi, Hon'ble Minister for Animal Husbandary, Dairying and Fisheries, Andhra Pradesh; Shri Vadde Vasanth Kumar Hon'ble Minister for Rural Development, AP; Shri M Krishna Rao Hon'ble Minister for Rural Development, Tourism & Fisheries, State of Pondicherry; Sri K. Bapi Raju, Member of the Parliament; Sri.K. Sambasiva Rao, Member of the Parliament; Dr.Priyadarshi Dash, I.A.S, Special Chief Secretary, DAHDD&F, AP; Shri.Tarun Sridhar, I.A.S., Joint Secretary(Fisheries) Government of India; Shri Neerabh K. Prasad, I.A.S., Commissioner of Fisheries, AP; Dr. S. Ayyappan Deputy Director General(Fisheries), ICAR, New Delhi and Dr.P.Krishnaiah, I.A.S, Chief Executive, NFDB, facilitated the inaugural function. The event witnessed exhibition of fish culture technologies, processing technologies, exquisite presentation of fish and shellfish food preparations and mesmerizing display of colorful ornamental fishes. A total of 124 exhibitors participated in the festival.



A recipe competition was organized for the women to encourage women in preparing recipes without loss of nutritive and medicinal values of fish.



Inauguration of Indian Fish festival 2009 by Hon'ble Union Minister for Agriculture and lighting of lamp during the Inaugural function.



Dr. S. Ayyappan, DDG (Fy) ICAR delivering the inaugural address for the technical session.



Gathering of visitors in a Food Court



Dignitaries in the Valedictory function



Ornamental fish stall

## H. Fish dressing centres and solar drying of fish :

During 2009-10, an amount of Rs 71.43 lakhs was released to the Coastal Area Development Agency, Kerala for establishment of model fish dressing centre at Nalapakam, Kerala. Further Rs 22.50 lakhs has been released to Government of Puducherry for setting up of solar fish drying unit at Yanam. The works are in good progress would be completed during 2010-11.



Fish Dressing Centre at Namkhana, W.B.sanctioned by NFDB in 2008-09 under construction



Installation and erection of tie beam of FDC, Junput, Purba, Medinipur West Bengal sanctioned by NFDB in 2008-09

## I. Freshwater Ornamental Fisheries:

The NFDB has sanctioned of Rs. 170.69 lakhs to 3 states for the development of ornamental fisheries. Kerala and Andhra Pradesh have taken lead in establish backyard ornamental fish rearing units. KAVIL in Kerala, a company established with support of Government of Kerala has taken up comprehensive development in India with an end to end approach from production to marketing, including export.

The details of assistance extended by the NFDB is as below:

S. No	Name of the state	Amount released (Rs. in Lakhs)
1	Andhra Pradesh	46.25
2	Kerala	101.07
3	Jammu and Kashmir	6.75
4	Other activities	16.62
	<b>TOTAL</b>	<b>170.69</b>





An amount of Rs 163.37 lakhs was sanctioned for setting up of 401 Ornamental fish units, Rs 2.50 lakhs for setting up of 10 Aquarium fabrication units and imparted training to 500 persons in seed production and culture of ornamental fishes. The details are as listed below:-

**i. Backyard hatcheries/Medium scale/ integrated ornamental Fish units:**

S. No	Name of the state	No of units	Amount released (Rs. in Lakhs)
1	Andhra Pradesh	15	43.75
2	Kerala	385	96.25
3	Jammu and Kashmir	1	6.75
4	Other activities		16.62
	<b>TOTAL</b>	<b>401</b>	<b>163.37</b>

**ii. Aquarium Fabrication Units:**

S.No	Name of the State	No of units	Amount released in lakhs
1	Andhra Pradesh	10	2.50
	<b>TOTAL</b>	<b>10</b>	<b>2.50</b>

**iii. Ornamental Fisheries Training:**

S. No	Name of the state	No. of trainees	Amount released (Rs. in Lakhs)
1	Kerala	500	4.82
	<b>TOTAL</b>	<b>500</b>	<b>4.82</b>

**Backyard ornamental fish farms at T.R.Puram, Kottayam District, Kerala State**







Ornamental fish units at Medchal in Andhra Pradesh



## J. Human Resource Development :

It is well recognized that the technical, financial and managerial skills are vital for the development of any sector.

Unfortunately this aspect has not received much attention in the fisheries sector due to various reasons. Therefore, it was felt that there is an urgent need to strengthen HRD in the fisheries sector and also to consider promoting alternative mechanisms of delivery through innovative methodologies to meet the growing needs of the sector. Keeping this in mind the NFDB has laid adequate focus on the HRD and extension aspects for improving the existing skill levels in the fisheries sector.

To organize training programmes under HRD, the NFDB had a detailed dialogue with the states and training institutes to identify the training needs and the training institutions were short listed. For the year 2009-10, 21 institutions were identified for imparting training to 985 participants to organize 48 training programs with a budget outlay of Rs.109.62 lakhs. Out of the 48 training programmes proposed for the year 2009-10, 5 programmes were dropped due



to various administrative reasons and finally 43 training programmes were proposed to train 860 participants. Out of proposed 860 officials proposed for the year 740 fisheries officials were trained during the year 2009-10 indicating implementation level of 84%.

### STATEMENT SHOWING THE FISHERY OFFICERS TRAINED DURING 2009-10

Agency	Name of the training	No of participants proposed	No of participants attended	Amount spent (Rs. in Lakhs)
Aquatic Resources Health Management Centre, Kolkata	Post harvest technology of aqua species and value added preparation	25	25	0.52
	Hygienic dry fish production and low cost methods	25	25	0.32
	Cage culture techniques with different aqua species	25	25	0.32
ASCI, Hyderabad	Financial systems management and accountability in government	20	14	5.95
	Management audit	20	16	6.62
CIBA, Chennai	Asian seabass fish seed production and culture	15	11	1.91
	Advanced technologies for management of soil and water environment in BWA	15	7	1.18
	Better management practices shrimp farming	20	10	1.14
	Crab breeding and culture	15	11	1.15
	Entrepreneurship development in coastal aquaculture	20	24	2.26
CIFE, Mumbai	E D P	8	8	2.4
	Policy and management option for sustainable fisheries & lively hoods	20	15	2.98
	Sectoral Planning, development & management	20	10	1.75
CIFRI, Barrackpore	Reservoir Fisheries Management	30	15	4.5
	Pen and cage culture	30	27	2.13
CIFT, Kochi	HACCP Concepts	10	13	0.89
	Marine ornamental fish culture	20	20	3.49
CMFRI, Kochi	Cage Culture of Sea-bas	20	25	3.75
	Mud crab farming	20	13	2.29





Agency	Name of the training	No of participants		Amount spent (Rs. in Lakhs)
		proposed	attended	
CoF, Mangalore	Brood stock management and hatchery practices for fresh water fishes	25	25	1.13
CoF, Panangad	Ornamental fish culture	20	20	1.5
CoF, Panthnagar	Fish seed production	30	30	1.22
	integrated Farming	30	30	1.22
CoF, Thoothukudi	Murrel Culture	25	16	1.61
DCWF, Bhimtal	Grow out technology of important cold water fishes in up land Himalayas	25	28	2.77
FSI Mumbai	Marine Fisheries	15	5	0.54
	Data collection, taxonomy, engineering	15	14	1.58
ICM, Hyderabad	Cooperative Law	20	18	1.6
	Accounting and audit	20	24	2.09
IIP, Hyderabad	Fish packaging	20	16	1.76
IIT, Khargpur	Engineering management in fisheries and aquaculture	16	16	4.15
Manage, Hyderabad	New dimensions in extension management	20	5	2.37
	Extension management	20	37	10.16
NIFPHTT, Kochi	Fish filleting and freezing	15	15	0.81
	Product development from fresh water fisheries	15	13	0.99
	HACCP Concepts	15	15	1.06
	Product development from fresh water fishes	15	15	0.84
NIMSME, Hyderabad	Strategic management of micro finance and capacity building	30	16	0.34
NIRD, Hyderabad	Practical orientation on inland fisheries development plan	25	11	2.73
	Practical orientation on inland fisheries development plan	25	19	1.22
Sambodhi Research & Communications Pvt.ltd, New Delhi	SPSS	1	1	0.15
Grand total		860	740	91.28



## IX. NFDB Office Complex

For establishment of NFDB Office Complex, 5.13 acres of land (20,760 Sqm) situated at Rajendranagar, Hyderabad was acquired from Sri Venkateswara Veterinary University, Tirupati on lease basis for 30 years for construction of an administrative building and staff quarters in the said land. A MoU has been signed between the NFDB and the CPWD for construction of office and residential complex.

Construction of administrative building is under progress. Slabs have been laid to the 4 floor level. Simultaneously construction of residential quarters is also progressing on a faster mode and is expected to be completed by June, 2011. An amount of Rs. 5.86 crores was released for the construction of office building and an expenditure of Rs. 6.00 crores was incurred so far by the CPWD.



Laying of foundation stone of NFDB complex at Hyderabad by Hon'ble Union Minister of Agriculture 10.07.2009



Construction of NFDB office complex under progress

## X. Transparency in the approval of projects

### i. Constitution of Screening Committee :

During 2009-10, the NFDB has constituted a Screening Committee with the following members for processing, scrutinizing and recommending of the proposals received from various states and organizations, for NFDB financial assistance

1. Dr. C. Vasudevappa, Sr. Executive Director -Chairman
2. Dr. E. V. Gopinath Sai, Executive Director (Tech.) - Member
3. Dr. A. S. Upadhyay, Executive Director (Tech.) - Member
4. Dr. C.K.Murthy, Executive Director (Tech) - Member



5. Dr. Mary Regina B, Sr. Executive (Tech) - Member
6. Dr. B. Sarala Devi, Sr. Executive (Tech) - Member
7. Dr. R. Jayakumar, Sr. Executive (Tech) - Member
8. Shri D.V.N.M. Sharma, Senior Executive (Finance) - Member

The Screening Committee has met 17 times and processed 175 proposals and out of this 125 proposals were recommended for extending the NFDB assistance of Rs. 12903.50 lakhs. Out of Rs. 12903.50 lakhs sanctioned and amount of Rs. 7903.43 lakhs was released to the states and organizations for implementing various fisheries development activities.

ii. State wise details of the proposals processed by the screening committee is as detailed below:

Sl. No	States	Proposals Processed	No. of Proposals recommended for extending finance	Amount recommended Rs. in lakhs	Amount Released Rs. in lakhs
1	Andhra Pradesh	24	18	1596.46	928.91
2	Arunachal Pradesh	9	7	1059.54	612.66
3	Assam	8	7	172.58	87.14
4	Chhattisgarh	6	4	428.3	397.71
5	Delhi	2	2	11.78	2.53
6	Goa	1	1	9.46	
8	Himachal Pradesh	1	1	302.68	162.68
9	Jammu & Kashmir	4	4	396.93	328.46
10	Jharkhand	4	3	173.36	172.86
11	Karnataka	13	7	1223.38	1174.19
12	Kerala	12	11	2198.73	1585.68
13	Madhya Pradesh	2	2	0.98	0.98
14	Maharashtra	16	11	617.65	362.38
15	Manipur	8	5	1519.57	388.64
16	Mizoram	8	6	564.55	52.04
17	Meghalaya	1	1	13.2	0
18	Nagaland	11	9	226.99	185.03
19	Orissa	2	2	63.37	46.49





Sl. No	States	Proposals Processed	No. of Proposals recommended for extending finance	Amount recommended Rs. in lakhs	Amount Released Rs. in lakhs
20	Pondicherry	2	1	22.50	22.50
21	Punjab	1	1	4.47	4.47
22	Rajasthan	1	0	0	0
23	Sikkim	5	3	37.72	33.34
24	Tamil Nadu	15	6	966.62	737.52
25	Tripura	2	2	23.69	21.00
26	Uttar Pradesh	9	5	159.49	77.31
27	West Bengal	8	6	1109.5	518.91
	<b>Total</b>	<b>175</b>	<b>125</b>	<b>12903.50</b>	<b>7903.43</b>

### **XI. Details of funds released to the states and utilised by them during 2009-10**

Out of total expenditure of Rs. 85.52 crores, an amount of Rs. 22.08 crores were utilized for various activities as detailed below and the balance amount of Rs. 63.44 crores is at various stages of utilization during the year 2009-10.

	Name of the state	Total funds released (Rs in crores)	Amount utilized during 2009-10 (Rs in crores)
1	Andhra Pradesh	9.29	0
2	Arunachal Pradesh	6.13	3.40
3	Assam	0.87	0
4	Chhattisgarh	3.98	0.06
5	New Delhi	0.02	0.02
6	Goa	0.09	0
7	Himachal Pradesh	1.63	0
8	Jammu & Kashmir	3.28	0
9	Jharkhand	1.73	0
10	Karnataka	11.74	5.07
11	Kerala	15.86	0.08
12	Madhya Pradesh	0.01	0.01
13	Maharashtra	3.62	0.01





	Name of the state	Total funds released (Rs in crores)	Amount utilized during 2009-10 (Rs in crores)
14	Manipur	3.89	2.96
15	Mizoram	0.52	0.65
16	Nagaland	1.85	0.91
17	Orissa	0.46	0.15
18	Pondicherry	0.22	0
19	Punjab	0.04	0
20	Sikkim	0.33	0.13
21	Tamil Nadu	7.39	2.48
22	Tripura	0.21	0
23	Uttar Pradesh	0.77	0
24	West Bengal	5.19	0
25	Other Institutions	3.19	2.95
26	Office Administration	3.20	3.20
	<b>TOTAL</b>	<b>85.52</b>	<b>22.08</b>



**P. JANARDANA RAO & COMPANY**

Chartered Accountants

6-3-609/11/2, Anand Nagar Colony, Khairatabad, Hyderabad 500004

Tel: 23390709.

**AUDITORS' REPORT**

To  
The Members,  
Governing Body,  
National Fisheries Development Board,  
Hyderabad.

We have audited the attached Balance Sheet of National Fisheries Development Board as at 31<sup>st</sup> March, 2010 and the Income And Expenditure Account for the year ended on that date, annexed thereto. These financial statements are the responsibility of the Board's Management. Our responsibility is to express an opinion on these Financial Statements, based on our Audit.

We conducted our Audit in accordance with Auditing Standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the Financial Statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall Financial Statements presentation. We believe that our audit provides a reasonable basis for our opinion.

**We report as under :**

1. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
2. In our opinion, proper Books of Accounts as required by law, have been kept by the Board, so far as appears from our examination of those books.
3. The Balance Sheet, Income And Expenditure Account dealt with by this report are in agreement with the books of accounts.
4. In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view in conformity with the accounting principles generally accepted in India :
  - (a) In case of the Balance Sheet, of the state of affairs of the Society as at 31<sup>st</sup> March 2010.
  - (b) In case of the Income And Expenditure Account, of the Excess of Income over Expenditure for the year ended on that date.

Place : Hyderabad  
Date : 06.10.2010

**For P. JANARDANA RAO & COMPANY**

Chartered Accountants  
Firm Regn.No:005717S

(C.V.M.SRINIVAS)

Partner.

Membership No - 202765

**NATIONAL FISHERIES DEVELOPMENT BOARD  
MAITRI VIHAR, AMEERPET, HYDERABAD  
BALANCE SHEET AS AT 31st MARCH 2010**

LIABILITIES	AMOUNT (Rs)	AMOUNT (Rs)	ASSETS	AMOUNT (Rs)	AMOUNT (Rs)
<b>Capital Fund</b>			<b>Fixed Assets</b>		
Opening Balance			(Schedule - I)		
As on 01.04.2009	57,279,104		Gross Block	12,629,642	
<b>Excess of Income over Expenditure</b>	22,255,514	<b>79,534,618</b>	<b>Less:</b>		
			Depreciation	6,575,697	<b>6,053,945</b>
<b>Grant in Aid</b>			Net Block		
Opening Balance			<b>Capital Work - In -Progress</b>		
As on 01.04.2009	869,822,879		<b>Including Capital Advances</b>		
			Administrative Building	60,747,600	
<b>Received During the year</b>	1,000,000,000		SPF Project at Sriakakulam	54,217,688	<b>114,965,288</b>
<b>Less: Taken in Income &amp; Expenditure Account</b>	392,805,415	<b>1,477,017,464</b>	<b>Current Assets,</b>		
			<b>Loans &amp; Advances</b>		
<b>Current Liabilities</b>			Rent Deposit	691,200	
Earnest Money Deposit & Further Security Deposit	89,000		Advances for Activities	881,231,295	
Salary Deductions	342,627		(Schedule - II)		
Other Liabilities	80,922		Other Advances	3,111,992	<b>885,034,487</b>
TDS on Rent & Contractors	3,774	<b>552,464</b>			
VAT - From suppliers	36,141		<b>Cash on Hand</b>		<b>17,562</b>
<b>Bank Balances:</b>			<b>Bank Balances:</b>		
<b>In Current Account</b>			<b>In Current Account</b>		
With State Bank of Hyderabad		<b>275,401,796</b>	With State Bank of Hyderabad	253,909	
			With State Bank of India	340,547	
			<b>In Fixed Deposits</b>		
			With State Bank of Hyderabad	663,595,805	
			With State Bank of India	162,244,799	<b>826,435,060</b>
<b>Notes on Accounts (Schedule - III)</b>					
<b>TOTAL</b>		<b>1,832,506,342</b>	<b>TOTAL</b>		<b>1,832,506,342</b>

As per Our Report of Even Date  
For P.JANARDHANA RAO & COMPANY  
Chartered Accountants  
Firm Reg.No: 005717S  
(C.V.M. Srinivas)  
Partner  
Membership No: 202765

Place : Hyderabad  
Date : 06.10.2010

For and on behalf of  
National Fisheries Development Board  
C.MURALI DHARAN  
Executive Director (F & A)  
Dr.C.VASUDEVAPPA,  
Senior Executive Director  
Dr.P.KRISHNAIAH, IAS  
Chief Executive







**NATIONAL FISHERIES DEVELOPMENT BOARD**  
**MAITRI VIHAR, AMEERPET, HYDERABAD**  
**INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH 2010**

EXPENDITURE	AMOUNT (Rs)	AMOUNT (Rs)	INCOME	AMOUNT (Rs)	AMOUNT (Rs)
Intensive Aquaculture in Ponds and Tanks	115,688,106		Grants Utilised		392,805,415
Reservoir Fisheries	190,895,330		Interest on Fixed Deposits		19,536,700
Coastal Aquaculture	29,500,790		Interest on SB Account		11,538
Sea Weed Cultivation	-		Lease Amount		2,731,232
Fish Dressing and Solar Drying	4,931,250		Misc. Income		30
Domestic Marketing	60,142		Sale of Tender Forms		2,500
Mariculture	8,164,810		Unspent Amount		1,621,693
Other Activities	430,000				
<b>TOTAL (A)</b>		<b>349,670,428</b>	<b>TOTAL</b>		<b>416,709,108</b>
<b>ADMINISTRATIVE EXPENSES:</b>					
Salary & Bonus expenses	17,891,853				
G.B / EC Meeting Expenses	451,571				
Advertisement & Publicity Expenses	1,488,763				
Celebrations	8,235				
Computer & Maintenance	202,171				
Professional & Consultancy Charges	2,657,372				
Hiring Of Vehicles	999,291				
Rent Expenses	1,877,968				
Office Expenses	1,624,284				
Electricity Charges	421,920				
Postage Charges	243,750				
Travelling Expenses	4,625,905				
Printing & Stationary	544,198				
Telephone Expenses	498,900				
Bank Charges	923				
Insurance Charges	19,179				
Statutory Audit Fee	49,635				
Training & Development	9,529,069				
Depreciation	1,648,179				
<b>TOTAL (B)</b>		<b>44,783,166</b>			
<b>Total Expenditure (A + B)</b>		<b>394,453,594</b>			
Excess of Income Over Expenditure		<b>22,255,514</b>			
<b>Notes on Accounts (Schedule - III)</b>					
<b>TOTAL</b>		<b>416,709,108</b>	<b>TOTAL</b>		<b>416,709,108</b>

As per Our Report of Even Date  
For P.JANARDHANA RAO & COMPANY  
Chartered Accountants  
Firm Reg.No: 0057175

For and on behalf of  
National Fisheries Development Board

C.MURALI DHARAN  
Executive Director (F & A)

(C.V.M. Srinivas)  
Partner  
Membership No : 202765

Dr.C.VASUDEVAPPA,  
Senior Executive Director

Place : Hyderabad  
Date : 06.10.2010

Dr.P.KRISHNAIAH, IAS  
Chief Executive

**NATIONAL FISHERIES DEVELOPMENT BOARD  
MAITRI VIHAR, AMEERPET, HYDERABAD  
FIXED ASSETS SCHEDULE AS AT 31.03.2010**

Schedule - I

Sl. No.	Particulars	Cost as on 1-4-2009 Rs.	Additions		Cost as on 31-3-2010 Rs	Depreciation upto 31-3-2009	Depreciation for the year Rs	Depreciation upto 31-3-2010	Rate of Depreciation	WDV as on 31-3-2010 Rs	WDV as on 31-3-2009 Rs
			Before 30.09.2009	After 1.10.2009							
1	Aquarium	26,900			26,900	8,923	2,697	11,619	15%	15,281	17,978
2	Audio Video Equipment	1,141,097		26,900	1,167,997	377,789	116,514	494,302	15%	673,695	763,309
3	Computers	1,959,353	217,825	30,750	2,207,928	1,459,564	439,793	1,899,357	60%	308,571	499,789
4	EPABX	72,500		-	72,500	21,395	7,666	29,061	15%	43,439	51,105
5	Printers	118,917	16,425	11,800	147,142	25,986	17,288	43,274	15%	103,868	92,931
6	Office Equipment	57,207			57,207	18,975	5,735	24,710	15%	32,497	38,232
7	Sign Board	186,284			186,284	61,788	18,674	80,462	15%	105,822	124,496
8	UPS	320,790			320,790	69,556	37,685	107,241	15%	213,549	251,235
9	Air Conditioner	601,244	25,954	136,900	764,098	199,425	74,433	273,858	15%	490,240	401,819
10	Furniture & Fixtures	1,339,117		277,192	1,616,309	279,824	119,789	399,613	10%	1,216,696	1,059,293
11	Electical Fittings	443,784	7,142	2,050	452,976	102,293	34,966	137,258	10%	315,718	341,492
12	Digital Copier	323,702		-	323,702	107,369	32,450	139,819	15%	183,883	216,334
13	Interioriors	3,205,465		1,273,885	4,479,350	2,136,976	641,093	2,778,069		1,701,281	1,068,489
14	Generator	275,000			275,000	41,250	35,063	76,313	15%	198,688	233,750
15	Cell Phones	24,990	5,939		30,929	3,749	4,077	7,826	15%	23,103	21,242
16	LCD T.V	24,000			24,000	3,600	3,060	6,660	15%	17,340	20,400
17	Refrigerator	16,400			16,400	2,460	2,091	4,551	15%	11,849	13,940
18	Scanner	11,900			11,900	1,785	1,517	3,302	15%	8,598	10,115
19	Cordless microphone	-		8,500	8,500		638	638	15%	7,863	-
20	Time & Attendance System	32,075			32,075	4,814	4,089	8,903	15%	23,172	27,261
21	Franklingmachine	-		88,961	88,961	-	6,672	6,672	15%	82,289	-
22	freezer	-	94,875		94,875	-	14,231	14,231	15%	80,644	-
23	Mikeset	-	-	82,224	82,224	-	6,167	6,167	15%	76,057	-
24	Nikon digital camera	-	17,300	14,945	32,245	-	3,716	3,716	15%	28,529	-
25	Software	-	-	100,350	100,350	-	16,725	16,725		83,625	-
26	Water Dispenser	-	9,000	-	9,000	-	1,350	1,350	15%	7,650	-
<b>Total :</b>		<b>10,180,725</b>	<b>394,460</b>	<b>2,054,457</b>	<b>12,629,642</b>	<b>4,927,518</b>	<b>1,648,179</b>	<b>6,575,697</b>		<b>6,053,945</b>	<b>5,253,207</b>





**NATIONAL FISHERIES DEVELOPMENT BOARD  
MAITRI VIHAR, AMEERPET, HYDERABAD**

Schedules Forming of Balance Sheet as on 31.03.2010

Schedule - II

As at 31.03.2010

**Advance for Activities**

**Amount in Rs.**

Advance for Intensive Aquaculture in Ponds and Tanks	206,393,194
Advance for Reservoir Fisheries	238,418,469
Advance for Coastal Aquaculture	16,427,960
Advance for Sea Weed Cultivation	331,750
Advance for Fish Dressing and Solar Drying	23,091,250
Advance for Mariculture	3,567,747
Advance for Deep sea Fishing and Tuna processing	20,500,000
Advance for Infrastructure for post harvest Processing	208,124,138
Advance for Other Activities	38,138,900
Advance to Domestic Marketing	126,237,887
<b>Total</b>	<b>881,231,295</b>

**Other Advances**

**Amount in Rs.**

Temporary Advance	181,000
Tour Advance	210,913
Transfer TA Grant	145,000
Infish	2,300,086
TDS Receivable	274,993
<b>Total</b>	<b>3,111,992</b>

**SPF Project at Srikakulam**

**Amount in Rs.**

Advance for Mona Technologies	21,751,488
Advance for SPF Project	466,200
Advance to Land Aquisition	32,000,000
<b>Total</b>	<b>54,217,688</b>

**Cash on Hand**

**Amount in Rs.**

Cash	14,028
Cash (In Fish)	772
Cash (Imprest)	2,762
<b>Total</b>	<b>17,562</b>





**Schedule - III**

**NATIONAL FISHERIES DEVELOPMENT BOARD  
MAITRI VIHAR, AMEERPET, HYDERABAD**

**SIGNIFICANT ACCOUNTING POLICIES  
&  
NOTES FORMING PART OF ACCOUNTS**

**A. ACCOUNTING POLICIES**

1. Accounts were prepared by adopting Cash Basis of Accounting.
2. Depreciation has been provided on Written Down Value Method by adopting the depreciation rates prescribed by the Income Tax Act 1961, excepting for Interior Decorations which are written off proportionately over the lease period of the Building.
3. Out of the Grants received from Government of India Grants to the extent of the amount spent as Revenue Expenditure (excluding depreciation) during the Financial Year will be treated as Income for the year and the balance will be treated as Capital Grants.
4. Grants given to various Agencies for implementation of the projects shall be treated as expenditure on receipt of utilization certificates.

**B. NOTES ON ACCOUNTS**

1. An amount of Rs.3,20,00,000/- was paid to Sub Collector Tekkali, Srikakulam District towards purchase of Land at Gollavooru and Mulapolum Village, Srikakulam District, Andhra Pradesh. Even though the Tahsildar's Office had given possession of land admeasuring 97.45 Acres Vide Land Possession Handing Over Certificate RC No.176/07/B dated, 10.03.2008, pending proceedings from the District Collector alienating land to NFDB the amount paid is shown as advance.
2. For the investments made during the financial year 2008 – 2009 in the equity share capital of NIFPHATT and Tamil Nadu Fisheries Development Corporation Limited share allotment letters / equity share certificates were not yet received.
3. For the majority amounts released during the year for various programs utilization certificates / receipt of unspent balances, if any are yet to be received.
4. Contingent Liabilities : Rs. Nil ( Previous Year Rs. Nil)



5. As the Society is registered under Section 12 AA of the Income Tax Act 1961, the Income of the Society is exempt from Tax and hence no provision is made for Income Tax.
6. The Board has been allotted 5 Acres of land during the financial year 2007 – 2008 on lease for 30 years at Rajendra Nagar, Hyderabad, by Sri Venkateswara Veterinary University. An amount of Rs.150/- paid as Lease Rental for the entire period of 30 years in the financial year 2007 – 2008 was charged off to Income and Expenditure Account .
7. Previous years figures have been regrouped where ever necessary to conform with the current years presentation.
8. Other liabilities amounting to Rs.80,922/- represents credits given by the bank on different dates the sources of which is yet to be identified.
9. Advances for activities amounting to Rs.88,12,31,295/- outstanding as on 31.03.2010 are subject to confirmation.
10. Credit Balance in Current Account in State Bank of Hyderabad amounting to Rs.27,54,01,796/- was due to accounting for of advances based on the vouchers and cheques that were dated 31.03.2010 even though they were dispatched at a later date.

For **P. JANARDANA RAO & COMPANY**  
Chartered Accountants  
Firm Regn.No.005717S

(**C.V.M.SRINIVAS**)  
Partner.  
Membership No - 202765

Place : Hyderabad  
Date : 06.10.2010.

For and on behalf of  
National Fisheries Development Board

**C.Muralidharan**  
Executive Director (F & A)

**Dr. C. VASUDEVAPPA**  
Senior Executive Director

**Dr.P. KRISHNAIAH, IAS**  
Chief Executive .



**NATIONAL FISHERIES DEVELOPMENT BOARD**  
**MAITRI VIHAR, AMEERPET, HYDERABAD**

Statement Showing Grouping of Expenditure  
For the year Ended on 31.03.2010

**Salary & Bonus expenses**

	<b>Amount (Rs)</b>
Salary & Bonus expenses	15,662,964
Children Education Assistance	177,677
Leave Salary	1,568,252
Pension Contribution	335,061
Leave Travel Expenditure	114,972
Leave Encashment	32,927
<b>Total</b>	<b>17,891,853</b>

**Computer & Maintenance**

	<b>Amount (Rs)</b>
Computer & Other Expences	84,641
Web Hosting Charges	30,599
Internet Charges	86,931
AMC on EPABX	-
<b>Total</b>	<b>202,171</b>

**Professional & Consultancy Charges**

	<b>Amount (Rs)</b>
Consultancy Charges	1,243,976
Out Sourcing Charges	1,228,980
Leagel Charges	5,000
Professional Charges	179,416
<b>Total</b>	<b>2,657,372</b>

**Postage Charges**

	<b>Amount (Rs)</b>
Postage Charges	72,605
Courier Charges	171,145
<b>Total</b>	<b>243,750</b>



**Printing & Stationary Expenses**

Printing &amp; Stationary

Stationary

**Total****Amount (Rs)**

34,146

510,052

**544,198****Training & Development**

Training &amp; Development Expenses

Work Shop &amp; Seminars

**Total****Amount (Rs)**

9,084,069

445,000

**9,529,069****Office Expenses**

News Paper Bill of Employees

Cable &amp; Consumables

Medical Charges

Office Expenses

POL

Repairs

Xerox Charges

Tea Expenses

Water

Working Lunch

Conveyance Charges

Auto / Taxi Charges

**Total****Amount (Rs)**

32,050

14,350

486,322

946,945

34,242

16,654

4,010

36,743

20,028

30,368

1,360

1,212

**1,624,284**

**XIII. Staff**

The following staff members are associated with NFDB during the year 2009-2010:

Sl. No.	Designation	Name	From	To
1	Chief Executive	Dr. P. Krishnaiah	04 .07.08	Continuing
2	Senior Executive Director	Dr. C. Vasudevappa	02.01.08	Continuing
3	Executive Director(Tech)	Dr. E.V. Gopinath Sai	21.11.07	Continuing
4	Executive Director(Tech)	Dr. A.S. Upadhyay	22.11.07	Continuing
5	Executive Director (Tech)	Dr. C.K.Murthy	11.03.07	Continuing
6.	Executive Director (F&A)	Shri C. Muralidharan	15.02.10	Continuing
5	Sr. Executive (Tech)	Dr. Mary Regina B.	25.08.06	Continuing
6	Sr. Executive (Tech)	Shri S. Murali Krishna	25.08.06	Continuing
7	Sr. Executive (Tech)	Dr. B. Sarala Devi	01.09.07	Continuing
8	Sr. Executive (Tech)	Dr. M. Vallathan	24.09.07	Continuing
9	Sr. Executive (Tech)	Dr. R. Jayakumar	26.11.07	Continuing
10	Sr. Executive (Tech)	Shri A. Tiburtius	07.01.08	Continuing
11	Sr. Executive (Tech)	Shri D. Gopi Reddy	10.01.08	Continuing
12	Sr. Executive (Admn)	Shri T. Rafeeq Ahmed	17.08.09	Continuing
13	Sr. Executive (Admn)	Shri D.V.N.M. Sharma	01.10.08	Continuing
14	Executive (Tech)	Shri D. Srinivas	01.09.07	Continuing
15	Executive (Tech)	Dr. S. Puneekar	21.09.07	*
16	Executive (Tech)	Dr. Deepanjali Appunni	16.01.10	Continuing
17	Executive (Admn)	Shri P. Parthasarthy	08.02.10	Continuing
18	Executive (Tech)	Shri B. Narasimha Rao	02.01.08	Continuing
19	Executive (Tech)	Shri M. N. Sudhakar	30.09.08	Continuing
20	Executive (F&A)	Ms. M. V. Goutami	12.10.07	*
21	Executive Asst.(Tech)	Smt. A.V. Madhuri	04.07.08	Continuing
22	Executive Asst.(Tech)	Shri Amit Bhardwaj	23.07.08	Continuing
23	Executive Asst.(Tech)	Shri Ashim Bora	14.07.08	Continuing
24	Executive Asst.(Tech)	Smt. J. Deepa Suman	31.07.08	Continuing
25	Executive Asst.(Fin.&Admn.)	Shri B. Jagadeeswar Rao	07.07.08	Continuing
26	Executive Asst.(Tech)	Ms. Smiti Rekha Pati	12.03.10	Continuing

Note: \* - repatriated to the parent department.



### XIV. Website

The information regarding the activities of NFDB, achievements, guidelines, orgnaogram etc are regularly updated in the official web site of NFDB which is <http://nfdb.ap.nic.in>.

### XV. RTI

In the year 2009-10, NFDB received four RTI questions, the details of which are as given below

Sl. No	Name of the applicant	Place	Information requested	Date
1	Mr. Sheik Ali Hussain	West Godavari Dist., Andhra Pradesh	Role of NFDB in organic aquaculture	23.07.2009
2	Mr. Sameer Shridhar Palkar	Nagpur, Maharashtra	Financial assistance provided to MFDC under Reservoir development scheme of NFDB	12.08.2009
3	Mr. Rama Swarup	New Delhi	Guidelines and terms and conditions for joint ventures between Indian and Taiwan fishing companies.	06.02.2010
4	Kailash Chandra Gupta	Gwalior, Madhya Pradesh	Budget allocated to NFDB during current financial year	24.02.2010

### XVI. Lok Sabha Questions/ Rajya Sabha Questions

The NFDB has received eighteen questions regarding various aspects of fisheries dealt by the NFDB, of which thirteen were from Lok Sabha and five questions were from Rajya Sabha. In addition to the above the NFDB has also received a question from the Prime Ministers Office regarding the problems faced by the fishermen of the country.



**XVII. Meetings and visits conducted by NFDB**

Sl No	Date	Venue	Purpose of the Meeting
1	18.04.09	Mandapam, Tamil Nadu	To visit seaweed culture areas & Open sea cage culture units
2	19.04.09	Rameshwaram, Tamil Nadu	To visit sites suitable for pen culture of brackishwater fishes.
3	21.04.09	Chidambaram, Tamil Nadu	To visit the marine ornamental fish breeding center
4	21.04.09	Puducherry	To discuss the new proposals of DoF Puducherry & visit the project sites
5	21.04.09	Chennai, Tamil Nadu	To oversee the establishment of aquatic quarantine facility for <i>L. vannamei</i>
6	7.5.2009	Hyderabad, Andhra Pradesh	To discuss the action plan for stocking of fingerlings in reservoirs for the year 2009-10 and to improve the procedures for undertaking the fingerling stocking program
7	17.05.09	New Delhi	To attend the meeting on review of the progress of the establishment of aquatic quarantine facility for <i>L. vannamei</i>
8	28.05.09	Chennai, Tamil Nadu	To oversee the establishment of aquatic quarantine facility for <i>L. vannamei</i>
9	29.05.09	Sirkali, Tamil Nadu	To assess the in the seabass demonstration project
10	30.05.09	Chennai, Tamil Nadu	To finalize SOP for the aquatic quarantine facility
11	31.05.09	Nellore, Andhra Pradesh	To assess the stock in the seabass demonstration project
12	11.6.2009	Hyderabad, Andhra Pradesh	To finalize the HRD action plan of NFDB for the year 2009-10.
13	13.6.2009, 14.6.2009	Coimbatore, Tamil Nadu	Orienting the States Department of Fisheries in developing the Fisheries in Reservoirs to increase the fish production from the small reservoirs and stock enhancement in medium and large reservoirs.
14	17.06.2009	Hyderabad, Andhra Pradesh	To involve the Fisheries Stakeholders in organizing of Indian Fish Festival (INFISH-2009) and Press Meet



Sl No	Date	Venue	Purpose of the Meeting
15	18.06.09	Chennai, Tamil Nadu	To conduct the midterm review meeting of the "sea bass demonstration" programme
16	30.06.2009	Hyderabad, Andhra Pradesh	To review the arrangements made for smooth conduct of Fish Festival and to discuss about formation of National Fish Coordination Committee (NFCC)
17	02.07.09	Chennai, Tamil Nadu	To attend the technical meeting of Aquatic Quarantine facility for <i>L. vannamei</i>
18	11.7.2009 to 13.07.2009	Hyderabad, Andhra Pradesh	Conduct of Indian Fish Festival – 2009 (INFISH-2009)
19	17.07.09	Nellore, Andhra Pradesh	To inspect the shrimp farms for grant of permission for <i>L. vannamei</i> culture
20	28.07.09	Chennai, Tamil Nadu	To discuss on the promotion of open sea cage culture with the technical support of NIOT
21	29.07.09	Nellore, Andhra Pradesh	To assess the stock in the "seabass demonstration project"
22	30.07.09	Chennai, Tamil Nadu	To attend the brain storming workshop on Environmental sustainability in coastal aquaculture
23	19.08.09 & 20.08.09	Prakasam & Nellore districts, Andhra Pradesh	To inspect the shrimp farms for grant of permission for <i>L. vannamei</i> culture
24	26.08.09 & 27.08.09	Visakhapatnam, East & West Godavari Districts, Andhra Pradesh	To inspect the shrimp farms for grant of permission for <i>L. vannamei</i> culture
25	01.09.09,	Hyderabad, Andhra Pradesh	To speed up implementation of the schemes and discussion on the revised guidelines
26	07.09.09	Mumbai, Maharashtra	To speed up implementation of the schemes and discussion on the revised guidelines
27	09.09.09	New Delhi	To speed up implementation of the schemes and discussion on the revised guidelines
28	09.09.09 & 10.09.09	Prakasam & Nellore districts, Andhra Pradesh	To inspect the shrimp farms for grant of permission for <i>L. vannamei</i> culture





Sl No	Date	Venue	Purpose of the Meeting
29	10.9.2009	Hyderabad, Andhra Pradesh	To finalize guidelines on "ornamental fisheries" development in accordance to the subcommittee meeting
30	11.09.2009	Hyderabad, Andhra Pradesh	To discuss about the "strategies for development of hygienic fish markets in Andhra Pradesh"
31	16.09.09 & 17.09.09	Visakhapatnam, East & West Godavari Districts	To inspect the shrimp farms for grant of permission for <i>L. vannamei</i> culture
32	18.09.09	Shillong, Meghalaya	To speed up implementation of the schemes and discussion on the revised guidelines
33	18.09.2009	Hyderabad, Andhra Pradesh	To finalize the guidelines framed in the light of the new schemes approved by the DAHD&F, Ministry of Agriculture
34	22.09.09	Orissa	To speed up implementation of the schemes and discussion on the revised guidelines
35	6.10.2009, 7.10.2009	Hyderabad, Andhra Pradesh	To finalize guidelines on "Reservoir Fisheries Development" in accordance to the subcommittee meeting
36	7.10.2009	Hyderabad, Andhra Pradesh	Introduction of New Technology in "Solar Drying of Fish"
37	12.10.09	NFDB, Hyderabad	Meeting on Promotion of "Tilapia Culture"

## IX. MEETINGS OF THE BOARD

### 1. Executive Committee Meeting:

The Executive Committee meetings of the NFDB were held under the Chairmanship of the Secretary, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India on the following dates:

Sl. No.	Meeting	Place	Date
1	13 <sup>h</sup> Executive Committee Meeting	Hyderabad	17.04.2009
2	14 <sup>th</sup> Executive Committee Meeting	New Delhi	07.12.2009



The resolutions of the meeting are enclosed.

## 2. Governing Body Meeting :

The fifth meeting of the Governing Body (GB) of the NFDB was held on 8<sup>th</sup> March, 2010 at Krishi Bhawan, New Delhi under the Chairmanship of Professor K.V. Thomas, Hon'ble Minister of State for Agriculture, Consumer Affairs, Food and Public Distribution and Vice-Chairman, Governing Body of NFDB. The minutes of the meeting are enclosed.



The Hon'ble Union Minister of State Prof. K.V. Thomas and Shri. Rudhra Gangadharan, Secretary, DADF attending the Governing Body Meeting of NFDB



View of the Governing Body members



Dr. P. Krishnaiah, Chief Executive, NFDB explaining the activities taken up by NFDB to the GB members



Prof. Abijit Sen, Member, Planning Commission and the Hon'ble Union Minister of State attending the GB meeting of NFDB

### 3. Southern States review meeting :

Hon'ble Union Minister of State for Agriculture Prof. K.V. Thomas has reviewed the implementation of various schemes by the southern states viz., Tamil Nadu, Kerala, Karnataka, Puducherry and Lakshadweep. The meeting was held at the conference hall of MPEDA, Kochi on 03.02.2010 and Shri. Malladi Krishna Rao, Minister for Fisheries, Government of Puducherry also participated in the meeting. Ms. Leena Nair IAS, Chairperson, MPEDA, Kochi, Shri. Tarun Shridhar, IAS, Joint Secretary (Fy), Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India, Dr. C. Vasudevappa, Senior Executive Director, NFDB, Hyderabad and senior officials from Fisheries departments of southern states have participated in the meeting. Hon'ble Union Minister of State for Agriculture Prof. K.V. Thomas held detailed discussions with the officials and suggested necessary steps to be taken for speedy implementation of various ongoing schemes related to fisheries.



Hon'ble Union Minister of State for Agriculture  
Prof. K.V. Thomas reviewing the implementation  
of schemes



View of the senior officials attending the meeting

### 4. Regional Level Meetings on Preparation of State specific Action plans for 2010-11 :

With a view to prepare a state specific Action Plan for the financial year 2010- 11, regional meetings were held between 1<sup>st</sup> to 4<sup>th</sup> March, 2010 at Hyderabad, Mumbai, Delhi and Kolkata and the states have presented their action plans for the year 2010-11. The details of revised guidelines, limitations and problems faced by the state governments while implementing the NFDB schemes especially, shortage of field staff were discussed at length. The action plans prepared on these lines were submitted by the different state governments to the NFDB for preparing a national level Action Plan for NFDB for the year 2010-11.





Chief Executive, NFDB discussing with the State Fisheries officials of Eastern Region in the meeting held on 04.03.2010 at CIFE Sub centre, Kolkata.



Chief Executive, NFDB discussing with the State Fisheries Officials of Northern Region in the meeting held on 3.03.10 at Krishi Bhavan, New Delhi



Chief Executive, NFDB discussing with the State Fisheries officials of Western Region in the Action Plan meeting held at CIFE, Mumbai on 02.03.2010

## 5. Regional Review Meetings organized by NFDB:

A series of regional meetings were organized by NFDB with the state departments to apprise them of the new guidelines and to draw State Specific Action Plans for 2010-11.

The Southern regional meeting was held at NFDB Hyderabad on 1<sup>st</sup> September 2009. The Secretaries, Commissioners and Directors of Fisheries/their representatives of Tamil nadu, Karnataka, Andhra Pradesh, Puducherry and Kerala States attended the meeting.

The western regional meeting was held at CIFE, Mumbai on 7<sup>th</sup> September 2009. The Secretaries, Commissioners and Directors of Fisheries/their representatives of Maharashtra, Madhya Pradesh, Goa, Gujarat and Chhattisgarh States participated in the meeting.



The Northern regional meeting was held at Krishi Bhawan, Ministry of Agriculture, New Delhi on 9<sup>th</sup> September, 2009. The Secretaries of Uttar Pradesh, Punjab and Directors of Jammu & Kashmir, Himachal Pradesh, Rajasthan, Haryana, Delhi and Managing Director of FISHCOPFED attended the meeting.

## **6. NFDB – FAO Mission Consultative Meeting on Development of Fisheries Sector in India:**

With a view to share the vast experience of the experts of the Food and Agriculture Organization (FAO), NFDB initiated a dialogue with the country representative of FAO in India Dr. Gavin Wall. It was decided that the technical support of FAO should be accessed and a task force was constituted to work on the fields viz; Climate change on Indian Fisheries, Aquatic diseases and management, NFDB field projects which includes Cage culture of fishes in Reservoirs and Open sea cage culture of fin fishes. The FAO Mission had three days consultative meeting from 23<sup>rd</sup> - 25<sup>th</sup> March, 2010 at NFDB, Hyderabad. The report of this meeting is enclosed.



Dr. Simon Funge Smith, FAO Expert, Thailand



Dr. Gavin Wall, Country Representative of FAO in India and Dr. P. Krishnaiah, CE, NFDB

## **7. Meeting with the Insurance Regulatory & Development Authority (IRDA), Hyderabad on 23<sup>rd</sup> September 2009:**

The NFDB had organized a meeting with the Insurance Regulation and Development Authority of India (IRDA), Hyderabad on 23<sup>rd</sup> 2009 to discuss the need for a comprehensive aquaculture stock insurance scheme to support this sector in the country. Representatives from Government and private sector insurance companies participated in the meeting. The meeting was chaired by Dr. Randip Singh Jaspal, Joint Director, IRDA, Hyderabad. Dr. C. Vasudevappa, Senior Executive Director, NFDB apprised the insurance companies about



the recent development to make aquaculture sustainable and requested the cooperation of the insurance companies to bring comprehensive insurance schemes for freshwater and coastal aquaculture. It was decided to setup a sub-committee consisting of the representatives from IRDA, insurance companies, NFDB and stakeholders to work out a model insurance scheme to support the sector.

#### **8. Meeting to discuss the research and development priorities in fisheries :**

A meeting was held on 30<sup>th</sup> January, 2010 under the chairmanship of the Director General, ICAR with the Directors of ICAR Fisheries Research Institutions at New Delhi to review the progress of the NFDB funded project to these institutions and for identification of thrust areas, popularization of new fish species for culture and strategies for increasing the overall fish production in the country.

#### **9. Meeting on preparation of guidelines for regularizing the *Pangasius sutchi* culture:**

A sub committee meeting was organized at the NFDB on 24<sup>th</sup> September 2009 to prepare guidelines for regularizing *Pangasius sutchi* farming in India. The meeting was chaired by Dr. C.Vasudevappa, Senior Executive Director, NFDB, Dr. A.K. Singh, Scientist NBFGR, Lucknow, Dr. Madhumita Mukharjee, Joint Director, Department of Fisheries, Government of West Bengal, Shri. I.A. Siddiqui, Fisheries Research & Investigation Officer, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India, Dr. K. Phani Prakash, Assistant Director, Department of Fisheries, Government of Andhra Pradesh and Senior officials of NFDB attended the meeting. Draft guidelines for regularizing *Pangasius sutchi* were prepared and submitted to the Ministry of Agriculture, Government of India for approval.

#### **10. Other Meetings/ Workshops organized by NFDB during 2009-10:**

##### **a. Workshop on “Development of Community Participated Enhanced Fisheries Management Model for the Chaur ( Flood Plains) and Maun ( Ox-bow Lakes)” - Bihar**

A workshop on “Development of Community Participated Enhanced Fisheries Management Model for the Chaurs (Flood Plains) and Mauns (Ox-bow Lakes)” was conducted at Muzaffarpur, Bihar on 5-6 December, 2009. The workshop was conducted as a part of the project funded by the NFDB in Bihar to demonstrate specific technological package that is appropriate, scalable, economically viable and easily adaptable by fisher / farmer for enhancing fish in chaurs and mauns.





Inauguration of the project by Hon'ble Member of Parliament, Muzaffarpur Sri Captain Jayanarayana Nishad.



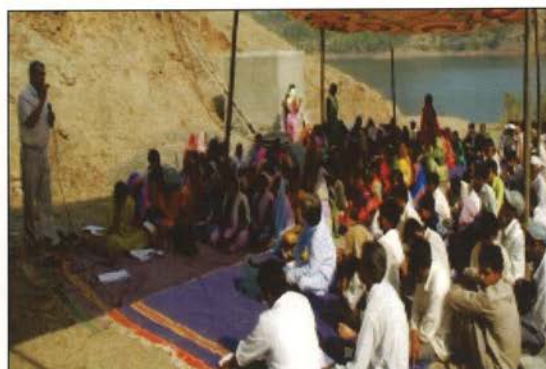
View of the participants

### **b. Launching of project –“Community Based Reservoir Fisheries Management” - Maharashtra**

A one day meeting with stakeholders involved in the NFDB funded project for cage culture demonstration was held by the CIFE, Mumbai on 27<sup>th</sup> January, 2010 at Siddeshwar temple, Vachpe village, Dimbhe reservoir. The objective of the project was to evolve a reservoir specific technological package of practices that can be easily adaptable by fishers for sustainable enhancement of fish production and income from the reservoir.



Launching the workshop at reservoir site



Director, CIFE addressing the Fishers community at reservoir site

### **c. Workshop on Indigenous Fresh water Fish species : Their role in poverty Alleviation, Food Security and Conservation of Bio-Diversity**

A workshop on “Indigenous Fresh water Fish species : Their role in Poverty Alleviation, Food Security and Conservation of Bio-Diversity” was conducted by the International Collective In Support of Fish workers (ICSF) Trust, Chennai in collaboration with Inland Fishery Society of India (IFSI) at CIFRI , Barrackpore, West Bengal in February, 2010. This



workshop was supported with funding by the NFDB. The objective of this workshop was to facilitate in evolving a policy for sustainable use of small indigenous fresh water fish species in fisheries and aquaculture.

#### **d. Brain Storming Meeting on “Fisheries Development in Reservoirs”**

Development of fisheries in reservoirs is one of a flag ship activity of the NFDB. The NFDB has conducted one day brain storming workshop on “Fisheries Development in Reservoirs” at Hyderabad on 7<sup>th</sup> May, 2009 with the Fisheries officials of the states to discuss an action plan for stocking of fingerlings in reservoirs for the year 2009-10 and to improve the procedures for undertaking the fingerlings stocking program under reservoir fisheries development in the southern States and Maharashtra. The main objectives of the workshop was to formulate the strategies to increase the average productivity to a level of 500 kg/ha/yr from small reservoirs; 200 kg/ ha/ yr from medium reservoirs; and 100-150 kg/ ha/ yr from the large reservoirs through effective implementation of the Reservoir Fisheries Development activity. The workshop also emphasized the need to build required capacities and skills of the in fishers for managing the whole process of fisheries development and harnessing the reservoirs.

#### **e. Review meeting on reservoir fisheries development**

The NFDB convened a meeting on 22<sup>nd</sup> December, 2009 at NFDB, Hyderabad to review the implementation of Reservoir Fisheries Development scheme by State Fisheries Departments in the country. 13 State Fisheries Departments have undertaken the fish fingerling stocking in the reservoirs under NFDB funding. Dr.K.K Vass, Former Director CIFRI, Dr. Vijaya Gupta, World Food Prize Laureate, Dr Jha, senior principal scientist, CIFRI attended the meeting. The state fisheries officials were requested to have clear policy on reservoir leasing and identify suitable reservoirs for holistic development from fingerling stocking to marketing involving the communities in a participatory mode.

#### **f. Seminar on Ornamental fisheries**

The Chief Executive, NFDB attended the “International seminar on ornamental breeding, farming and trading” organized jointly by the Department of Fisheries Kerala, Ministry of Agriculture , Government of India and NFDB, Hyderabad at Cochin on 14<sup>th</sup> February, 2010 in connection with “Kerala Ornaments-2010 held during 13-15 February 2010. The seminar became a platform for meaningful deliberations on various issues connected with the ornamental fish industry and find out solutions for improving of natural stocks, examine the development of technologies for captive breeding and genetic improvement, recent technologies in aquarium keeping , appraisal on global market trends , marketing issues and challenges, and constraints related to polices and legislation.



View of the “International seminar on ornamental breeding, farming and trading”  
seminar sponsors and participants

### **g. Field demonstrations and Interaction Meeting on Seabass culture at Ramudupalem, Gangapatnam Village.**

The Central Institute of Brackishwater Aquaculture (CIBA) has developed a technology for the seed production under controlled conditions and for nursery and grow out culture. The farmers can take up Asian seabass farming as an alternative/supplementary activity to overcome the present crisis in the aqua farming. CIBA with the funding support of National Fisheries Development Board, Hyderabad, took up a Demonstration Project in farmers' ponds. The main objective of the programme is to create confidence and awareness amongst farmers on the culture of seabass including nursery rearing and grow out culture by providing the techno economic viability of the whole operation in the pond culture system. The programme has been taken up at three places viz., 1.Ramudupalem, Gangapatnam, Nellore District, Andhra Pradesh, 2.Mahendrapalli, Sirkazhi District, Tamil Nadu and 3.Saphale, Maharashtra. At Andhra Pradesh, demonstration was carried out in the farm of Shri Hanumantha Rao Naidu, a progressive farmer at Ramudupalem of Gangapatnam, Nellore District. An Interaction Meet on the progress of demonstration was held at D.R.Uttam Hotel, Nellore on 19<sup>th</sup> February, 2010. The programme was successful with the participation of more than 100 farmers, entrepreneurs, feed manufacturers, State Fisheries Department officials and media persons. The participants were taken to the farm site at Ramudupalem to witness the culture of Seabass.





Dr. A.R.T. Arasu, Head, FCD, CIBA explaining about the demonstration programme



Drag netting of seabass from the demonstration pond at Ramudupalem, Nellore District, A.P.

#### **h. Meeting on Improving the Infrastructure in Fishing Harbours and Fish Landing Centres**

A meeting was convened by the NFDB on 4<sup>th</sup> December, 2009 at the NFDB, Hyderabad to discuss the plan of action for improving the infrastructure in Fishing Harbours and Fish Landing Centres of the Country. Representatives of Maritime State Fisheries Departments, Port Departments, Maritime Boards, DAHDF, the Marine Products Export Development Authority (MPEDA), Export Inspection Agency (EIA), Central Institute of Coastal Engineering and Fishery (CICEF) and Seafood Exporters Association of India (SEAI) have participated in the meeting.



The Chief Executive, NFDB addressing the gathering.

#### **i. Expert Committee Meeting on NFDB Guidelines for Domestic Fish Marketing**

A expert Committee Meeting was held on 18<sup>th</sup> September, 2009 at the NFDB for formulating revised guidelines consequent to the revisions of schemes of NFDB and changing the pattern of financial assistance. Concerned subject specialists and stakeholders participated and offered their suggestions for the making the guidelines user friendly.



**j. Stakeholders meetings:**

Two meetings were conducted by involving Central and state government fisheries officials, office bearers of various fisheries associations/organizations, fish farmers, fish processors and entrepreneurs, on 17th and 30th June, 2009 at Hyderabad and discussed organizing the Indian Fish Festival at Hyderabad.

**k. Stakeholders meeting:**

On 11<sup>th</sup> September, 2009 meeting was organized at the NFDB office to evolve strategies for development of hygienic fish markets in Andhra Pradesh. The officers of fisheries department, Government of Andhra Pradesh, APCOF, local fish traders, fish processing and marketing organizations had participated in the meeting. In all 26 stakeholders participated and deliberated on development of marketing infrastructure, market, cold chains etc.

**l. Awareness workshop:**

One day awareness workshop for Small Scale Fish Traders in Hyderabad City on “Hygienic fish retail outs” was conducted at NIMSME, Yusufguda, Hyderabad on 29<sup>th</sup> October, 2009. About 175 entrepreneurs participated in the workshop to build awareness about hygienic handling of fish in domestic marketing.

**m. Meeting on modernization of hygienic markets :**

A meeting was organized on 10<sup>th</sup> November, 2009 at the office of Commissioner & Director of Municipal Administration, Hyderabad on Modernization/ construction of hygienic fish markets with the assistance of NFDB”, inviting Commissioners of all Municipal Corporations in Andhra Pradesh.

**11. Hindi week organized at NFDB during 14-20th September, 2009:**

NFDB organized a official language week during 14<sup>th</sup> – 20<sup>th</sup> September, 2009 to popularize and encourage the usage of written and spoken raj bhasha (hindi ) in the office. While addressing the gathering the Chief Executive emphasized the need to use the official language more often in the office. The staff members actively participated in the programmes organized during the week.



**Proceedings of the Thirteenth meeting of the Executive Committee of the  
National Fisheries Development Board held at National Fisheries Development  
Board Office, Hyderabad on 17.04.2009**

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The 13<sup>th</sup> Meeting of the Executive Committee (EC) of the National Fisheries Development Board was held at 02.30 p.m. on 17<sup>th</sup> April 2009 at the office of National Fisheries Development Board, Hyderabad under the Chairmanship of Shri. N. Gokulram, Secretary, DAHD&F, Ministry of Agriculture, Govt. of India, New Delhi. The list of Executive Committee members and invitees who attended the meeting is given in Annexure - I.

Dr. P. Krishnaiah, Chief Executive (CE), NFDB welcomed the Chairman and members of Executive Committee and made a power point presentation on the Action Taken Report.

Executive Committee, while confirming the 12th Executive Committee meeting proceedings, noted the action taken report and advised that the construction of office building by CPWD should commence immediately.

The deliberations and decisions on the agenda items is as follows:

**1. Cost escalation for construction of the SPF shrimp seed Multiplication Centre at Srikakulam Dist. A.P. to be taken up by CPWD :**

**A.** EC confirmed the earlier decision of execution of the works through CPWD after comparing the estimates furnished by various agencies, CPWD was asked to work out the cost index as per the fluctuations in the market price to arrive at actual budget requirement. CPWD, NFDB and M/s. Moana should also explore cost cutting measures and try to eliminate non essential investment.

**B.** Necessary preventive works should be taken up for protection of site from floods and cyclones. In this regard, the CPWD was requested to visit the site, re examine the designs with reference to the site conditions and work out the actual requirement of critical components of the project without compromising on the technical standards and requirements for efficient execution of the project.

**Jump Start Programme:**

**C.** EC was appraised about the progress of the Jump Start Programme and positive response from the farmers about the performance of the seed. Responding to the point raised by Shri M. Sudarshan Swamy, M.D. M/s Moan India regarding delay in giving permit





for import of brood stock, EC advised M/s. Moana Technologies India Pvt. Ltd., (MTIPL) to submit a comprehensive proposal for obtaining the required permit from the Government of India.

**D.** EC also desired that the MTIPL should submit periodic reports to the Coastal Aquaculture Authority (CAA) about the progress of the Jump Start Programme. CAA may also be involved in fixing the price of the SPF seed to be supplied to the farmers both under Jump Start Programme and the regular seed production programme.

**E.** The Multiplication Centre should be insured against the natural calamities. Responding to the request of the MD, MTIPL, the EC decided that there will be no reduction in the lease amount on account of increase in the cost of the project.

## 2. Revision of EFC document for existing and new schemes:

**A.** EC suggested to take up the revised schemes and new schemes to the EFC for approval. The following funding pattern was discussed and the EC approved the broad approach and the assistance pattern.

S.No	Pattern of assistance	Agencies	Activities
1	100% Grant	Government departments/ Research Institutions/ Quasi government organizations	Human Resource Development program Brood stock development, Reservoir Fisheries Development, Transfer of technology.
2	90% Grant	Government departments/ Quasi government organizations  Research Institutes	Infrastructure development such as hatcheries, feed mills, harbours, Markets etc. Integrated model fishery units.  Developing working models/branding/bench marking/certification
3	50% subsidy assistance	Government departments/ Quasi government organizations/ Organizations of Farmers SHGs,	Publicity and educational campaign  Insurance to aquaculture Ornamental fishery units etc.
4	40% subsidy	Farmers / Entrepreneurs	Innovative schemes such as culture of new species, New farming practices(cages/pens) Hygienic marketing.





S.No	Pattern of assistance	Agencies	Activities
5	40% soft loan at 5% interest rate	Entrepreneurs/ Farmers through commercial banks  Fisheries Federations and Corporations	Feed mills, Extruded floating pelleted feed mills, Processing facilities, Seafood courts and restaurants etc.  Feed mills, Extruded floating pelleted feed mills, Processing facilities, Seafood courts and restaurants, Setting up of hygiene markets.
6	Equity	Entrepreneurs/ Companies	Extruded floating pelleted feed plants, Cold chain development, Modern market development etc.
7	25% for all categories 30% for S.C/S.T/ N.E Regions subsidy	farmers/ entrepreneurs	Construction/renovation of fish/prawn ponds/brackish water fin fish, Establishment of hatcheries, seed rearing units, Trout culture, Inputs for culture, Setting up of retail fish markets, Mussel/Oyster/clam culture/other commercial shellfishes etc.

**B.** EC also agreed to establish model Kiosks (fish selling outlets) with NFDB funding in important towns and cities of the country after a feasibility study. The Kiosks will be owned by NFDB but managed under Public-Private-Partnership.

**C.** While approaching the EFC for approval, the proposal shall highlight the efforts made to avoid duplication of the schemes with other agencies.

**D.** The proposal for adoption of revised unit costs should be on par with the recently revised Centrally Sponsored Schemes (CSS) as far as practicable, wherever similar schemes exist under NFDB and CSS.

**E.** With regard to the clarifications sought by the representative of the Secretary, Uttar Pradesh on the pattern of assistance for SC/ST beneficiaries, EC advised him to submit a separate proposal to the Ministry for clarification.

**F.** A scheme to promote onboard processing facility for off shore fishing vessels should be devised soon.



### **3. Provision for 1st year input subsidy for new species with or without renovation activity:**

EC approved the proposal to provide input subsidy of 40% for aquaculture in new species like murels, catfishes, tilapia, sea bass, milk fish, mullets etc., even where renovation of existing ponds / construction of new ponds is not involved. The unit cost for inputs will be arrived at in consultation with the concerned research organizations.

### **4. Establishment of nylon net making factory:**

It was agreed to extend financial assistance for the proposals received from Kerala and Orissa for establishment of fish net making plants in the form of 60% soft loan on the specific guarantee of the state government with a ceiling of Rs. 5 crores. Interest would be charged at the rate applicable to the primary sector.

### **5. Establishment of fish meal and fish oil unit:**

EC did not approve the proposal for establishment of fish meal and fish oil unit received from M/s Yashaswi Fish Meal and Oil Company, Pithrody, Udyavara, Udupi taluq Karnataka as there is no suitable scheme under NFDB.

### **6. Establishment of Aquatic Quarantine Facility at Neelankarai, Chennai by the Rajiv Gandhi Centre for Aquaculture:**

EC approved revised capital cost estimate of Rs. 216.53 lakhs for the establishment of the Aquatic Quarantine Facility at Chennai. The working capital requirements for the aquatic quarantine facility and the user charges for the Aquatic Quarantine facility should be worked out by NFDB in consultation with CAA and MPEDA. The proposal to subsidize the cost of quarantine testing charges was not approved and it was advised that ministry should examine the proposal separately.

### **7. Human Resource Development Programme for the year 2009-10:**

HRD activities may be taken up in proportion to the budget allotted. Special emphasis should be given to HRD in the inland States duly earmarking the required budget.

### **8. Administrative issues:**

#### **A. Strengthening of NFDB staff**

While endorsing the need for additional staff, EC desired that a separate proposal may be sent with proper justification to the Ministry.

**B. Extension of deputation period of Dr. B. Mary Regina and Shri Murali Krishna, Senior Executives in NFDB**

The extension of the deputation period of Dr. Mary Regina and Shri S. Murali Krishna, Senior Executives in NFDB for a period of another two years was approved.

**C. Shifting of NFDB office**

EC approved the proposal of shifting of NFDB office and advised that a complete case be submitted for ministry's approval.

**D. Medical Reimbursement Policy**

Medical Reimbursement Policy was approved in principle by the Executive Committee. For out patient treatment the expenditure incurred by the beneficiaries will be reimbursed by the Board. For inpatient treatment, suitable medical-claim insurance policy should be finalized by CE, NFDB.

**E. Hospitality bills**

EC approved the proposal of providing hospitality expenses and empowered CE, NFDB to incur such expenditure as and when essential.

**F. Residential Accommodation for CE/SED**

EC approved the proposal in accordance with GoI norms.

EC agreed for hired accommodation for the two senior officers (Chief Executive and Senior Executive Director) until such time residential accommodation of suitable type is provided by the NFDB.

HRA would be admissible to the Chief Executive who has to pay penal rent for the present accommodation provided by the Government of AP from the date of his joining NFDB.

**G. Continuation of the service of Deputy Executive Engineers**

Executive Committee ratified the action taken by the NFDB and continue the services of the Shri Ramakrushna, DEE till the completion and trial run of the SPF shrimp seed Multiplication Centre project at Srikakulam.





## 9. Financial matters:

### A. Change of Accounting Policy

EC approved the proposal that all releases would be treated as Advances till such time the Utilization Certificate is received and the change in Accounting Policy of NFDB will be reflected in the Annual Report for 2008-09. A note explaining the strategy to monitor the releases will be submitted to the Integrated Finance Division, Ministry of Agriculture.

### B. Budget estimates for the year 2009-2010

A copy of the Action Plan submitted by the States shall be sent to DAHDF to workout fund requirement for NFDB and to include such proposals under CSS wherever relevant. EC desired that priority shall be given in releasing funds, for schemes which address issues related to production and productivity enhancement. EC desired that an action plan for Rs. 250 Crores should be prepared by NFDB and communicated to the implementing agencies for sending detailed proposals.

### 10. Proposal for conducting a short tem Certificate course on the Entrepreneurship Development Programme

EC approved for the funding support of 100% of the Tuition fee component only for first two years at the rate of 40 candidates per year. NFDB should also extend tuition fee support to the deserving trainees of National Institute for Fisheries Post Harvest Technology and Training (NIFPHATT).

Meeting ended with vote of thanks to the Chair and members.

**Sd\ - N. Gokulram**  
Chairman & Secretary,  
Executive Committee meeting, NFDB,  
Department of Animal Husbandry,  
Dairying & Fisheries (DAHD&F),  
Ministry of Agriculture, Govt. of India.

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**CHIEF EXECUTIVE**



**List of participants attended the meeting of the 13th Executive Committee on  
17.04.2009 held at NFDB, Hyderabad**

1. Shri N. Gokulram, I.A.S.,  
Secretary, Department of Animal Husbandry, Dairying & Fisheries (DAHD&F),  
Ministry of Agriculture, Govt. of India,  
Krishi Bhawan,  
New Delhi - 110 001
2. Shri Tarun Shridhar, I.A.S.,  
Joint Secretary (Fisheries),  
Department of Animal Husbandry, Dairying & Fisheries  
(DAHD&F), Ministry of Agriculture, Govt. of India,  
Krishi Bhawan, New Delhi - 110 001.
3. Shri V.V. Sadamate,  
Advisor,  
Planning Commission,  
Govt. of India, Yojana Bhavan,  
New Delhi - 110 001.
4. Dr. P. Prabhakaran, I.A.S.,  
Addl. Chief Secretary ,  
GAD & Fisheries, Govt. of Kerala,  
Secretariat,  
Thiruvananthapuram - 695 001.
5. Dr. Paul Raj,  
Member Secretary,  
Coastal Aquaculture Authority,  
Shastri Bhawan Annexe - 26, Haddows Road,  
Chennai - 600 006.
6. Dr. Priyadarshi Dash, I.A.S.,  
Special Chief Secretary, Animal Husbandry, Dairying & Fisheries Department  
(AHD&F), Govt. of Andhra Pradesh,  
D-Block, Floor - 1, Secretariat, Hyderabad.
7. Dr. P. Krishnaiah, I.A.S.,  
Chief Executive,  
National Fisheries Development Board,  
Hyderabad



**List of participants who represented the Executive Committee members:**

8. Shri G. S. Metha,  
General Manager,  
NABARD, Mumbai,  
  
Representing  
Shri K. G. Karmakar  
Managing Director,  
NABARD, Plot.No.C-24, G-Block,  
Bandra (E), Mumbai - 400 051.
9. Shri P.K. Agrawal,  
Special Secretary Fisheries,  
Govt. of Uttar Pradesh.  
Representing  
Dr. Harsaran Das, I.A.S.,  
Secretary (Fisheries),  
Govt. of Uttar Pradesh,  
Secretariat,  
Lucknow - 226 001.

**Others present in the Meeting:**

10. Shri M. Sudarshan Swamy,  
Managing Director,  
M/s Moana Technologies (India) Pvt. Ltd.,  
Flat # 401, D.No. 6-22-13/16, Kurupam Anchorage Apartment,  
East Point Colony, Beach Road,  
Visakhapatnam - 530 017, Andhra Pradesh.
11. Shri G. Radha Krishnan,  
Superintending Engineer,  
C.P.W.D, Hyderabad.
12. Shri Vivekananda Swamiji,  
Executive Engineer,  
C.P.W.D, Hyderabad.
13. Dr. C. Vasudevappa,  
Senior Executive Director,  
National Fisheries Development Board,  
Hyderabad.





**Proceedings of the Fourteenth meeting of the Executive Committee of the  
National Fisheries Development Board held at Krishi Bhavan, New Delhi on  
07.12.2009**

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The 14<sup>th</sup> Meeting of the Executive Committee (EC) of the National Fisheries Development Board was held at 11.00 a.m. on 7<sup>th</sup> December 2009 at Krishi Bhavan, New Delhi under the Chairmanship of Shri Rudhra Gangadharan, Secretary, DAHD&F, Ministry of Agriculture, Govt. of India, New Delhi. List of participants is annexed.

Dr. P. Krishnaiah, Chief Executive (CE), NFDB welcomed the Chairman, members of the Executive Committee (EC) and other invitees.

EC confirmed the proceedings of the 13<sup>th</sup> Executive Committee meeting and reviewed the action taken report on the decisions of 13<sup>th</sup> Executive Committee. Following decisions were taken.

**1. Cost escalation for construction of SPF shrimp seed Multipli- cation Centre at Srikakulam to be taken up by CPWD:**

CE, NFDB presented the latest position regarding the progress of construction of the M.C. project and the steps taken by NFDB to implement the project as per the Memorandum of Agreement signed between NFDB, Moana Hong Kong Limited (MHKL) and Moana Technologies India Private Limited (MTIPL).

After examining various pros and cons, the EC decided that a letter should be issued to M/s MHKL and MTIPL giving them time till 31st January 2010 to settle all the issues with the NFDB regarding establishment of the SPF *P. monodon* multiplication center.

In the meanwhile, EC decided that a committee be constituted comprising of following members to look into technical and financial aspects of the present arrangement and other possible options for implementation of SPF project in case the project cannot be implemented through MHKL and MTIPL:

- i. Chief Executive, National Fisheries Development Board
- ii. Chairman, MPEDA
- iii. Joint Secretary (Fisheries), DAHD&F, MOA, GOI
- iv. Director (Finance), DAHD&F, MOA, GOI
- v. Member Secretary, CAA
- vi. Advisor (Agriculture), Planning Commission.



The committee will give its recommendation to the EC on further course of action on this project.

**(B.) Necessary preventive works should be taken up for protection of site from floods and cyclones. In this regard, the CPWD was requested to visit the site, re-examine the designs with reference to the site conditions and work out the actual requirement of critical components of the project without compromising on the technical standards and requirements for efficient execution of the project.**

Action taken noted.

**Jump Start Program:(c) EC was appraised about the progress of the Jump Start Programme and positive response from the farmers about the performance of the seed. Responding to the point raised by Shri M. Sudarshan Swamy, M.D. M/s Moana India regarding delay in giving permit for import of brood stock, EC advised M/s. Moana Technologies India Pvt. Ltd., (MTIPL) to submit a comprehensive proposal for obtaining the required permit from the Government of India.**

Senior Executive Director, NFDB explained the progress of jump start program. EC suggested to send copies of the reports on jump start programme to MPEDA also.

**(D). EC also desired that the MTIPL should submit periodic reports to the Coastal Aquaculture Authority (CAA) about the progress of the Jump Start Programme.**

Action taken noted.

**CAA may also be involved in fixing the price of the SPF seed to be supplied to the farmers both under Jump Start Programme and the regular seed production programme.**

Action taken noted.

**(E.) The Multiplication Centre should be insured against the natural calamities. Responding to the request of the MD, MTIPL, the EC decided that there will be no reduction in the lease amount on account of increase in the cost of the project.**

Action taken noted.

**Revision of EFC document for existing and new schemes**



**A. EC suggested to take up the revised schemes and new schemes to the EFC for approval. The following funding pattern was discussed and the EC approved the broad approach and the assistance pattern.**

While approaching the EFC for approval, the proposal shall highlight the efforts made to avoid duplication of the schemes with other agencies.

Action taken noted.

**B. Establishment of model kiosks (fish selling outlets)**

EC also agreed to establish model Kiosks (fish selling outlets) with NFDB funding in important towns and cities of the country after a feasibility study. The Kiosks will be owned by NFDB but managed under Public-Private-Partnership.

CE, NFDB explained the action initiated to establish model fish retail outlets by contacting State Fisheries Secretaries, Commissioners/ Directors, and State municipal administration departments. Chairman, Executive Committee advised that letters be addressed from the Secretary, DADF, Govt. of India to all state Chief Secretaries requesting for allotment of suitable land for establishment of fish retail outlets in metros and modernization of fish markets across the country.

CE, NFDB submitted to the committee that many proposals have been received for modernization of fish markets at estimated costs higher than the unit cost (Rs 250.00 lakhs) of NFDB. Hence, the EC was requested for approval to sanction projects costing more than Rs 250.00 lakhs by treating the amount beyond Rs.250.00 lakhs as soft loan at 5% interest.

After detailed discussion, it was resolved that the need for revision of unit cost may be examined and revised proposal may be placed before EC.

**C. Adoption of revised unit costs on par with the recently revised CSS**

The proposal for adoption of revised unit costs should be on par with the recently revised Centrally Sponsored Schemes (CSS) as far as practicable, wherever similar schemes exist under NFDB and CSS.

Action taken noted.

**D. Pattern of assistance to SC/ST beneficiaries of Uttar Pradesh**





With regard to the clarifications sought by the representative of the Secretary, Uttar Pradesh on the pattern of assistance for SC/ST beneficiaries, EC advised him to submit a separate proposal to the Ministry for clarification.

EC resolved to drop the issue as there has been no response from the State Government.

#### **E. Promotion of onboard processing facility for off shore fishing vessels.**

**A scheme to promote onboard processing facility for off shore fishing vessels should be devised soon.**

CE, NFDB informed that MPEDA had agreed to prepare an appropriate scheme.

Chairman, MPEDA informed that they will send a detailed proposal to NFDB.

#### **3. Provision of 1st year input subsidy for new species with or without renovation activity**

EC approved the proposal to provide input subsidy of 40% for aquaculture of new species like murels, catfishes, tilapia, sea bass, milk fish, mullets etc., even where renovation of existing ponds or construction of new ponds is not involved. The unit cost for inputs will be arrived at in consultation with the concerned research organizations.

EC approved the unit costs to provide input subsidy of 40% for aquaculture of new species like murels, catfishes, tilapia, sea bass, milk fish, mullets etc. in accordance with the detailed guidelines framed by NFDB.

#### **4. Establishment of nylon net making factory**

It was agreed to extend financial assistance for the proposals received from Kerala and Orissa for establishment of fish net making plants in the form of 60% soft loan on the specific guarantee of the state government with a ceiling of Rs. 5 crores. Interest would be charged at the rate applicable to the primary sector.

EC agreed to extend financial assistance of Rs.10.0 crores as soft loan at 5% rate of interest on the guarantee of the state government.

#### **5. Establishment of Aquatic Quarantine facility at Chennai**

**A. EC approved revised capital cost estimate of Rs. 216.53 lakhs for the establishment of the Aquatic Quarantine Facility at Chennai.**



**B. The working capital requirements for the aquatic quarantine facility and the user charges for the Aquatic Quarantine facility should be worked out by NFDB in consultation with CAA and MPEDA.**

EC authorised the Joint Secretary (Fisheries), DADF to resolve the pending issues by discussing these with Chairman MPEDA and the Chief Executive, NFDB.

## **6. Administrative issues**

### **A. Strengthening of NFDB staff**

While endorsing the need for additional staff, EC desired that a separate proposal may be sent with proper justification to the Ministry.

Action taken noted. Chairman, EC desired that the ministry should follow up with the Department of Expenditure.

### **B. Extension of deputation period of Dr. B. Mary Regina and Shri Murali Krishna, Senior Executives in NFDB**

The extension of the deputation period of Dr. Mary Regina and Shri S. Murali Krishna, Senior Executives in NFDB for a period of another two years was approved.

Action taken noted.

### **C. Shifting of NFDB office**

EC approved the proposal of shifting of NFDB office and advised that a complete case be submitted for ministry's approval.

Action taken noted.

### **D. Medical Reimbursement Policy**

Medical Reimbursement Policy was approved in principle by the Executive Committee. For out patient treatment the expenditure incurred by the beneficiaries will be reimbursed by the Board. For inpatient treatment, suitable medical-claim insurance policy should be finalized by CE, NFDB.

Action taken noted.



### **E. Hospitality bills**

EC approved the proposal of providing hospitality expenses and empowered CE, NFDB to incur such expenditure as and when essential.

Action taken noted.

### **F. Residential Accommodation for CE/SED**

EC approved the proposal in accordance with GoI norms.

EC agreed for hired accommodation for the two senior officers (Chief Executive and Senior Executive Director) until such time residential accommodation of suitable type is provided by the NFDB. HRA would be admissible to the Chief Executive who has to pay penal rent for the present accommodation provided by the Government of AP from the date of his joining NFDB.

Action taken noted.

G. Executive Committee ratified the action taken by the NFDB and continue the services of the Shri S. Ramakrushna, DEE till the completion and trial run of the SPF shrimp seed Multiplication Centre project at Srikakulam.

Action taken noted.

## **7. Financial matters**

### **A. Change of Accounting Policy**

EC approved the proposal that all releases would be treated as Advances till such time the Utilization Certificate is received and the change in Accounting Policy of NFDB will be reflected in the Annual Report for 2008-09. A note explaining the strategy to monitor the releases will be submitted to the Integrated Finance Division, Ministry of Agriculture.

Action taken noted.

### **B. Budget estimates for the year 2009-10**

A copy of the Action Plan submitted by the States shall be sent to DAHD&F to workout fund requirement for NFDB and to include such proposals under CSS wherever relevant. EC desired that priority shall be given in releasing funds for schemes which address issues related to production and productivity enhancement. EC desired that an action plan for Rs. 250 Crores should be prepared by NFDB and





communicated to the implementing agencies for sending detailed proposals.

Action taken noted.

**8. EC approved for funding support of 100% of the Tuition fee component only for first two years at the rate of 40 candidates per year to CIFE, Mumbai. NFDB should also extend tuition fee support to the deserving trainees of National Institute for Fisheries Post Harvest Technology and Training (NIFPHATT).**

Action taken noted.

## **NEW AGENDA**

### **1. Establishment of Nylon Net making unit**

EC approved the proposal of the State Fisheries Department, Kerala to provide Rs. 10 crores as soft loan at 5% rate of interest on the guarantee of the state government.

### **2. Establishment of fish meal plant at Perunthottam, Sirikali taluk, Nagapatnam dist. Tamilnadu:**

CE, NFDB explained the proposed project on establishment of fish meal plant and requested approval of EC to extend financial support from NFDB in the form of soft loan to the extent of 40% of capital cost @ 5% interest for such schemes.

EC deliberated on issue relating to availability of raw material, technical feasibility of the project and quality of fish meal. EC resolved that a scheme for assisting the establishment of fish meal plants may be prepared by NFDB after due diligence and placed before the EC for a decision to include it as a new scheme.

### **Human Resource Development Programme : Provision of TA to the participants for the training programs conducted at various Institutions**

EC agreed to extend TA limited to two tier AC to all the state Fisheries officials/ farmers/ entrepreneurs/ Fishers/ NGOs for attending the training program at identified institutions.

### **3. Additional financial requirement on the seed cost stocked in reservoirs of Karnataka during 2008-09**

EC decided that enhancement beyond the approved unit cost may not be agreed. It was also decided to discourage the practice of importing fish fingerlings from neighbouring states as



it would have an adverse effect on seed quality, cost and mortality due to long distance transport. The Chairperson, MPEDA suggested to ensure quality of fish fingerlings and a monitoring system for ensuring correct stocking. The MD, NABARD expressed the need for conservation of indigenous fish varieties. The Member Secretary, Coastal Aquaculture Authority desired that the technology of floating cage nurseries in reservoirs may be adopted for rearing fry to fingerlings. The Joint Secretary DADF desired that the manual on reservoir fisheries brought out by the ministry may be circulated to all the user states/organizations.

It was decided that CIFRI, Barrackpore may be requested to complete their evaluation study of fingerling stocking in reservoirs in 3 months time.

#### **4. Establishment of Aquatic Quarantine Facility at Neelankarai, Chennai by the Rajiv Gandhi Centre for Aquaculture (RGCA)**

##### **A. Escalation of the capital cost and**

##### **B. Working capital requirement**

EC has authorised the Joint Secretary (Fisheries), DADF to resolve the pending issues by discussing with Chairman MPEDA and the Chief Executive, NFDB.

#### **5. Indian Fish Festival – 2009 (INFISH-2009)**

EC ratified the additional expenditure of Rs. 8.75 lakhs. NFDB was advised to organize more such festivals in important cities. Wherever possible these may be combined with other important events conducted by MPEDA etc.

#### **6. Opening of Bank Accounts**

EC ratified the action taken on opening of two Savings Bank Accounts bearing No.62099473120 in the name of “NFDB-INFISH” and another account bearing No.62100354035 in the name of “NFDB-TDS” for the purpose of remittance of TDS online in State Bank of Hyderabad, Sanjiva Reddy Nagar Branch, Hyderabad.



## **ADDITIONAL AGENDA**

### **8. Other items with permission of the chair**

#### **A. NFDB guidelines**

(i) Approval of detailed guidelines

EC approved the detailed guidelines for implementing the NFDB schemes.

(ii) Approval of certain new schemes

EC decided that the schemes recommended by the Sub Committee and not approved by the Government be resubmitted to the government for taking suitable decision.

(iii) Adoption of certain schemes with the funding pattern suggested by the Sub Committee during its revision:

EC resolved to extend 20% subsidy on the unit cost approved under CSS for establishment of fish seed hatcheries of 8 to 10 million capacity.

#### **B. Fish seed stocking in Bheels, Jheels, Chauras, and Mauns of 20 ha to 200ha.**

EC desired that this item may be brought before the next EC meeting after the receipt of the evaluation study report of CIFRI, Barrackpore.

#### **C. Running water fish culture**

EC agreed for extending financial assistance to Running water fish culture by NFDB on par with CSS norms.

#### **D. Norms for training and demonstration**

EC agreed to the revised cost proposed for extending assistance to the states/organizations for training programme of fishermen/fish farmers.

#### **E. Exposure visits to Fisheries functionaries and progressive fish farmers**

EC approved the scheme of exposure visits to Fisheries functionaries and progressive fish farmers within the state or outside the state.

#### **F. Proposal for assisting fishermen for the acquisition of specially designed Beach Landing Boats for Tuna Fishing**



EC suggested that NFDB may send the details of the schemes to the Ministry for examination in view of certain policy implications relating bilateral and multilateral agreements. EC advised that if the proposed scheme falls under the category of innovative activities, the Chief Executive is competent to extend the financial assistance after due appraisal by a competent agency.

### **Development of a Common Facility Centre for value added fish products at Nellore, Andhra Pradesh**

EC gave in-principle approval for development of Common Facility Centre for value added fish products and to conduct a detailed feasibility study by a competent agency.

### **G. Establishment of Fish meal and Fish Oil plant at Guntur District**

CE, NFDB explained the proposed project on establishment of fish meal plant and required permission of EC to extend financial support from NFDB in the form of soft loan to the extent of 40% of capital cost @ 5% interest for such schemes.

EC resolved that a scheme for assisting the establishment of fish meal plants may be prepared by NFDB after due diligence and placed before the EC for a decision to include it as a new scheme.

### **H. Setting up a Modern Fish Retail Markets by M/s Oceanic Edibles International Limited, Chennai**

EC resolved to extend subsidy from NFDB to M/S Oceanic Edibles International Ltd. Chennai for the fish retail outlet at Valasaravakkam based on the existing approved pattern.

### **I. Setting up value added seafood processing plant (IQF)**

EC ratified the action taken on extending financial assistance of Rs.155.20 lakhs to M/s Sasoondock Matsyodhyog Sahakari Society Ltd., for setting up value added seafood processing plant (IQF) through National Cooperative Development Corporation (NCDC) by equity participation.

### **J. Setting up of common facility centre for export processing of sashimi grade tuna by the NIFPHATT at Vizag with NFDB financial assistance**

EC ratified the action taken on extending financial assistance of Rs. 185 lakhs for setting up a common facility centre at Vizag unit of NIFPHATT.

**K. Trainings organized by FISHCOPFED**

Joint Secretary, DADF informed EC members the decision of the fisheries ministers meeting held at Bhubaneswar to use FISHCOPFED as one of the nodal agencies to conduct training and awareness building programmes. Mr. B.K.Mishra, Managing Director, FISHCOPFED who was a special invitee to the meeting, explained the involvement of FISHCOPFED in conducting the trainings to the fishermen members of Fisheries Cooperatives through its 4 regional centers spread over the country.

Referring to the evaluation report of NIRD, the Chairman pointed out that some of the training programmes conducted by FISHCOPFED in Kerala and Orissa were stated to be irrelevant to the fishers. The MD, NABARD was of the opinion that most fishery cooperatives are non functional and referred that trainings by FISHCOPFED is an outsourced model.

Additional Secretary and Finance Advisor, DADF opined that FISHCOPFED should justify its capability for undertaking trainings and suggested to enhance their capacity in terms of infrastructure for training centres, resource persons etc. Further, he also added that FISHCOPFED is getting funds from Government of India for training programmes. The Secretary (Fisheries), Government of Kerala informed that their state government can undertake training programmes instead of outsourcing to FISHCOPFED.

CE, NFDB also expressed that most of the training programmes are inbuilt in the NFDB activities of intensive aquaculture in ponds and tanks and reservoir fisheries development and suggested that FISHCOPFED may undertake training for marine fishermen.

The Joint Secretary, DADF advised the Managing Director, FISHCOPFED to send a specific proposal detailing the calendar of training programmes (avoiding overlap with the trainings of State Governments and CSS), infrastructure available, training schedule, course content and deliverables of the training programme.

**L. Progress report on HRD Action Plan 2009-10**

EC noted the progress made on HRD action plan.

**ADMINISTRATION AND FINANCE****M. Air Travel by Air India & other Airlines**

EC advised NFDB to send the proposal to DADF.



## **N. Audited accounts for the year 2008-09**

EC approved the audited accounts for the year 2008-09.

## **O. Publication of Annual Report 2008-09**

EC approved the annual report 2008-09.

## **Other Items**

1. Modernization of Wholesale Fish Market at Howrah, Kolkata, West Bengal at an estimated cost of Rs.35.5 crores.

EC resolved that the proposal may be got further examined keeping in view the unique nature of Howrah fish market.

2. Request of Fisheries Resources Management Society (FIRMA, Govt. of Kerala undertaking) for availing the financial support from NFDB in the form of soft loan.

CE, NFDB explained the details of the proposal and the item was put for discussion.

The Chairperson, MPEDA expressed that the proposal has to be dealt very cautiously, as there are certain problems regarding export of ornamental fishes.

The Secretary (Fisheries), Kerala felt that if a soft loan is provided by NFDB for Rs. 273.00 lakh it would speed up the completion of the project as the bank loan is not yet tied up.

The Joint secretary, DADF expressed that since the proposal in question does not fit into the approved scheme of NFDB on the technical and economical feasibility may be got evaluated and proposed again.

Meeting ended with a vote of thanks.

**Sd\ - Rudhra Gangadharan**  
Chairman & Secretary,  
Executive Committee meeting, NFDB,  
Department of Animal Husbandry,  
Dairying & Fisheries (DAHD&F),  
Ministry of Agriculture, Govt. of India.

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**CHIEF EXECUTIVE, NFDB**





**List of participants attended the meeting of the 14<sup>th</sup> Executive Committee on  
7.12.2009 held at Krishi Bhavan, New Delhi**

**Executive Committee Members**

1.	Shri Rudhra Gangadharan, I.A.S., Secretary, Department of Animal Husbandry, Dairying & Fisheries (DAHD&F), Ministry of Agriculture, Govt. of India, Krishi Bhawan, New Delhi – 110 001
2	Shri A.S. Lamba, I.A.S., Additional Secretary & Finance, Dept. of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Govt. of India, Room No. 129, Krishi Bhawan, New Delhi-110 001
3.	Shri Tarun Shridhar, I.A.S., Joint Secretary (Fisheries), Department of Animal Husbandry, Dairying & Fisheries (DAHD&F), Ministry of Agriculture, Govt. of India, Krishi Bhawan, New Delhi - 110 001.
4.	Shri V.V. Sadamate, Advisor (Agriculture), Planning Commission, Govt. of India, Yojana Bhavan, New Delhi - 110 001.
5	Shri K. G. Karmakar, Managing Director, NABARD, Plot.No.C -24, G-Block, Bandra – Kurla Complex, P.B.No. 8121, Bandra (E), Mumbai – 400 051
6	Ms. Leena Nair, I.A.S., Chairman, Marine Products Export Development Authority, MPEDA House, Panampilly Avenue, Kochi – 682 036
7.	Dr. Paul Raj, Member Secretary, Coastal Aquaculture Authority, Shastri Bhawan Annexe - 26, Haddows Road, Chennai - 600 006.
8	Shri K.R. Jyothilal, I.A.S., Secretary (Fisheries) Govt. of Kerala, Secretariat, Thiruvananthapuram – 695 001
9	Dr. P. Krishnaiah, I.A.S., Chief Executive, National Fisheries Development Board – Member Convener, Hyderabad



## List of participants who represented the Executive Committee members Representing

10. Shri N.R. Patel,  
Deputy Director of Fisheries,  
Gandhi Nagar, Gujarat.  
**Representing**  
Secretary (Fisheries),  
Govt. of Gujarat, Block No. 5, 2<sup>nd</sup> Floor,  
New Secretariat, Gandhi Nagar – 382 010

11. Dr. Salim Sultan,  
Deputy Director of Fisheries, Uttar Pradesh.  
**Representing**  
Principal Secretary (Fisheries),  
Room No.-10, Naveen Bhawan,  
Govt. of Uttar Pradesh,  
U.P. Secretariat, Lucknow – 226 001

12. Dr. Manmohan Singh, I.A.S.,  
Commissioner of Fisheries,  
Government of Andhra Pradesh,  
Street No. 4, Shanti Nagar,  
Near Masab Tank, Hyderabad – 500 028.  
**Representing**  
Special Chief Secretary,  
Dept. of Animal Husbandry, Dairy Development and Fisheries,  
Government of Andhra Pradesh,  
D-Block, Floor-I, Hyderabad – 500 022

### Special Invitee:

13. Shri B. K. Mishra,  
Managing Director,  
FISHCOPFED, New Delhi.

### Others present in the Meeting:

14. Dr. C. Vasudevappa,  
Senior Executive Director,  
National Fisheries Development Board, Hyderabad.





**Proceedings of the Fifth Meeting of the Governing Body of the National Fisheries Development Board held at the Krishi Bhawan, New Delhi on the 8<sup>th</sup> March, 2010**

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The fifth meeting of the Governing Body (GB) of the National Fisheries Development Board (NFDB), Hyderabad was held at 9.30 AM on the 8th March, 2010 at the Krishi Bhawan, New Delhi. under the chairmanship of Professor K.V. Thomas, Hon'ble Minister of State for Agriculture, Consumer Affairs, Food & Public Distribution and Vice-Chairman, Governing Body of NFDB. The list of participants is annexed.

Shri Rudhra Gangadharan, Secretary, Department of Animal Husbandry, Dairying & Fisheries (DAHD&F), Government of India welcomed the Hon'ble Minister and the members of the Governing Body.

In his opening remarks, Professor K.V. Thomas, highlighted the importance of fisheries sector which provides livelihood to more than 14 million fishers in the country. The Chairman exhorted the States to focus on enhancement of productivity of the reservoirs by creating adequate infrastructure especially for seed quality improvement. The Chairman desired that efforts be made for development of hatcheries and nurseries for quality fish seed and the States should aim to become self sufficient in seed production. The Chairman advised the states to develop ornamental fisheries as an income generating scheme for the women's groups. Highlighting the importance of clean and hygienic markets and harbours, the Chairman requested the states to create appropriate revenue generation and management structures for the harbours and markets. The stake holders should be adequately trained in this regard, by engaging the scientists from the Indian Council of Agriculture Research (ICAR) Institutes. The Chairman advised the state to mobilize atleast 30% of the Rashtriya Krishi Vikas Yojana (RKVY) grants made available to the States for fishery sector. While appreciating the efforts of NFDB in adopting a professional approach to fisheries development in the country, he requested State Fisheries Departments to utilize the opportunity for better reach of funds and technology to the end users.

Thereafter, the Chairman invited discussion on the agenda.



## **I. Confirmation of the Proceedings of the Fourth Meeting of the Governing Body held on 12<sup>th</sup> February 2009**

The proceedings of the fourth meeting of the Governing Body held on 12th February, 2009 were confirmed.

Shri N. Nanje Gowda, member suggested that atleast two meetings of the Governing Body should be conducted in a year. The Chairman informed that a decision will be taken in consultation with the Hon'ble Union Minister of Agriculture, Consumer Affairs, Food & Public Distribution.

## **II. Action Taken Report**

The Chief Executive (CE), NFDB made a presentation of the Action Taken Report on the decisions of the Fourth Governing Body. Action taken was noted by the governing body.

## **III. New Agenda**

### **1. Review of the projects taken up by NFDB**

The Governing Body reviewed the projects with the following comments and decisions.

#### **A. Reservoir Fisheries Development (RFD)**

Shri Dharmraj Nishad, Hon'ble Minister of Fisheries, Uttar Pradesh mentioned that it is not possible to pay 25% of the income to NFDB. The CE, NFDB clarified that the states have to pay 25% of the lease income and not 25% of the income derived from the reservoirs and the states have already started payment of 25% of the lease income to NFDB. The Secretary (Fisheries), Kerala representing the Minister of Fisheries, Kerala, mentioned that, most of the reservoirs in Kerala State belong to power department and the fishermen societies are not allowed to catch fish in these reservoirs due to security reasons. Therefore, he requested for exemption of payment of 25% to NFDB to facilitate Kerala to utilize the benefits of this scheme. The CE, explained that an appropriate mechanism may be evolved by the State to ensure that fishermen are permitted to fish in the reservoirs. The Governing Body approved the present arrangement.

Shri Kiranmay Nanda, Hon'ble Minister of Fisheries, West Bengal requested that, bheels may be considered under the Reservoir Fisheries Development (RFD) scheme. The C.E,



NFDB informed that, after the midterm evaluation of the scheme by the Central Inland Fisheries Research Institute (CIFRI), the inclusion of bheels could be considered. Shri Nanje Gouda, member, while thanking NFDB for funding Karnataka State for fingerling stocking, stated that the schedule of stocking of fingerlings in reservoirs should be informed to members of GB, wherever possible. He informed that in Karnataka the fingerlings are purchased from Andhra Pradesh which is resulting in high mortality and additional costs. The CE, NFDB, informed that the States should promote pen culture/ cage culture for rearing fingerlings within the reservoirs to prevent mortality, ensure better acclimatization and avoiding additional expenditure.

The Chairman directed that, the Reservoir Fisheries Development scheme has to be implemented in a scientific way and there should be a suitable mechanism for monitoring the implementation of the scheme since a considerable investment is being in the scheme and reservoirs also offer an excellent opportunity for enhancing fish production in the country.

## **B. Intensive Aquaculture in ponds and tanks**

Training of fish farmers/fishermen:

The Chairman directed that, ICAR Fisheries Institutes and Fisheries Colleges should be actively involved in the training programmes to fishermen and fish farmers. The syllabus in Fisheries Colleges and Schools may be updated to include the latest technologies.

## **C. Support for establishing a Trout Feed Mill at Jammu & Kashmir**

Shri Ajaz Ahmed Khan, Minister of Fisheries, Jammu & Kashmir informed that, the cost of the proposed trout feed mill has gone up to Rs 8.88 crores and requested for NFDB's assistance to meet the entire project cost. The CE, NFDB informed that, NFDB has already extended a grant of Rs. 5.00 crores as per the guidelines and the balance may be met by the State Government. Secretary, DAHD&F informed about the liberal support extended to J & K and requested the states for the speedy implementation of the projects.

## **D. Ornamental Fisheries**

The Chairman appreciated the encouragement to this sector and advised the states to avail NFDB's support as this scheme would benefit the women.

## **E. Infrastructure Development**

### **i. Establishment of Aquatic Quarantine Facility (AQF) at Chennai**

Shri D. Ramraj requested for exploring the possibility to test the brooders on a sample basis instead of entire lot with a view to facilitate import of more brood stock. He further requested for quarantine facility for other fish species as well. The Chairman informed that this issue will be placed before the technical committee for examination.

### **ii. Modernization of fishing harbours**

The Chairman suggested that supply of fresh water, internal roads and ice facility should be given due consideration in modernization of the fishing harbours. Shri Anwar Hashim, President, Seafood Exporters Association of India mentioned that, certain fishing harbours are not being used by the fishermen for want of supply of freshwater. He specifically mentioned about the Dolhai fishing harbour in this regard. The Chief Executive, NFDB informed that NFDB would consider financial assistance for any such proposal submitted by the State Government.

### **iii. Establishment of Fish Dressing Centers and Solar drying units**

The Chairman advised to involve research organizations in training programmes for development of value added fish products. Shri Deepak P. Gadre, member suggested that publicity may be organized on sustainable fisheries, mesh regulation etc. Shri. Kiranmay Nanda, Hon'ble Minister of West Bengal, suggested that such publicity material can be made in local languages. He informed that West Bengal has prepared an advance action plan and offered to take up this work.

### **iv. Modernization of whole sale and retail fish markets:**

The Chairman suggested that all fish markets should have adequate and hygienic facilities. The President, Sea Food Exporters Association suggested creation of model fish markets. The Chief Executive, NFDB informed that financial support is extended to all essential components like water supply, ice and chilled storage facility etc., in the markets to be developed with NFDB assistance. Secretary, DAHD&F stated that, the model prepared by NFDB can only serve as a guideline and based on the local situations each market should be designed to meet the standards of hygiene. The implementing agencies are advised to





develop management structure for revenue generation and the maintenance protocols for waste disposal and cleaning.

#### **v. Establishment of SPF-*Penaes monodon* Multiplication Centre and jump start programme**

Shri T. Satyanarain, member, desired that steps should be taken to set up the multiplication centers for the vannamei shrimp. Shri Tarun Shridhar, Joint Secretary, Fisheries stated that Ministry will examine viable projects in this regard.

Shri D.Ramraj, member, informed that some of the ponds recently stocked with seed supplied under the jump start programme have reported disease problem within 30 days of stocking. He further expressed apprehension on the quality of seed produced under jump start programme since Moana Hong kong Limited (MHKL) does not have any control over on actual farming. Replying to his query, the Chief Executive, NFBD informed that, the matter with regard to disease problem will be referred to the Central Institute of Brackish Water Aquaculture (CIBA) for examination. Further, he informed that, MHKL is in the process of reconstituting M/S Moana Technologies India Private Limited (MTIPL) and that they are likely to sort out the problem shortly.

### **F. PUBLICITY AND AWARENESS CAMPAIGN**

#### **i. Exhibitions and Publicity campaigns**

Shri Dharmraj Nishad, Hon'ble Minister for Fisheries, Uttar Pradesh requested NFDB to consider the proposal submitted by the state to organize fish festivals in district headquarters. Chief Executive informed that State level fish festival will be supported in the first phase and the proposals for district level festivals will be taken in the subsequent years.

#### **ii. Marketing Study on Asian Seabass**

The Chairman suggested that a buy-back arrangement for seabass marketing may be worked out in collaboration with the Exporters' Associations.

#### **iii. Fish Festivals:**

It was agreed to conduct a fish festival at Mumbai, Kolkata and Puducherry during the year 2010-11.



## **2. Audited Accounts and Publication of Annual Report 2008- 09**

The audited account and annual report for the year 2008-09 were approved.

## **3. Guidelines for implementing NFDB schemes**

The manual of detailed guidelines of NFDB was released by the Chairman.

## **4. Waiver off of 10% contribution by the states to NFDB**

The Governing Body approved that the states may provide 10% of the approved cost of the project instead of making cash contribution to meet their share when ever NFDB provides NFDB provides 90% support to the schemes.

## **5. Sharing of 25% annual lease income from reservoirs by the state governments with NFDB**

Waiver of 25% of lease amount to be remitted to NFDB was not agreed to by the Governing Body.

## **6. Executive Committee meeting proceedings**

The proceedings of the Executive Committee meetings held on 17.04.2009 and 07.12.2009 were ratified.

## **7. Strengthening of NFDB staff**

The action taken is noted. Dr. G. K. Bhanji, member requested to consider absorption of the deputationists.

## **8. Any other items with the permission of the Chair**

### **A. Action plan for the year 2010-11**

The action plan for the year 2010-2011 at an estimated cost of Rs.431crores was approved. The states were advised to strengthen the manpower of fisheries departments for effective utilization of funds.

The Ministers representing various States, while appreciating the efforts of the NFDB, requested to enhance the budget outlays for housing programmes for the fishermen.



## **B. Electricity tariff**

Shri S K Mohanty, member informed that in the State of Orissa, the State Electricity Regulatory Board has considered the request for supplying electricity for the fisheries and aquaculture under separate category called “Agro-industry” at the rate of Re. 1 per unit. Many members requested the Planning Commission to intervene on this matter by taking up this matter with the State Governments to supply electricity to the fisheries sector on par with agriculture activity.

The Chairman requested the states to devise suitable tariff for aquaculture and take up the matter with their respective electricity regulatory boards.

## **C. Promotion of tuna fishing in Lakshadweep and Andaman and Nicobar**

The Chairman desired to know the action taken for promotion of tuna fishing in Lakshadweep and Andaman & Nicobar islands. The Joint Secretary (Fisheries ) explained that the ministry has already approved Rs. 30 Crores for purchase of two mother vessels for promoting deep sea fishing in Lakshadweep and Andaman and Nicobar administration has prepared a detailed plan for the tuna fishing.

Shri S.Venu Gopal, member, desired that the unit cost for the tuna fishing vessels needs to be enhanced. The CE replied that NFDB has sent a proposal to GoI for two types of schemes for tuna fishing – one costing Rs 60-70 lakh for tuna long liners and the other costing Rs. 10 lakh for beach landing crafts to be used by small fishermen. Shri Deepak Gadre, member suggested that onboard preservation of tuna should be given utmost importance. The Chairman advised to explore the tuna live tuna exports as is practiced by some foreign companies on a pilot scale. Shri S. Venugopal, member also suggested to consider the possibility of extending financial assistance as 50% Government grant and 50% bank loan for tuna fishing vessels. The Chairman directed that this issue be examined by NFDB.

## **D. Dissemination of potential fishing zone data by FSI**

Shri S.K Mitra, Executive Director, National Bank for Agriculture and Rural Development (NABARD) desired that fishing vessel operators may be regularly informed about the location and availability of the tunas in advance through mapping for which Fishery Survey of India (FSI) assistance may be taken. The Chairman advised that installation of Electronic Display Boards in all major fishing harbours for the benefit of fishermen may be considered.





Shri Deepak P. Gadre, member suggested to provide weather forecast data that helps the fishermen going for fishing.

The Chief Executive informed that consultation will be done with the state governments, Fishery Survey of India and stakeholders in this regard to work out the modalities. The Governing Body agreed to the suggestion.

### **E. Insurance Coverage for Aquaculture**

The Chief Executive, NFDB informed that NFDB has formulated a policy for giving financial assistance for insurance for aquaculture sector (fish & prawn) and discussions are going on with the insurance companies to work out a master policy.

### **F. Rashtriya Krishi Vikas Yojana (RKVY) and Rural Infrastructure Development Fund (RIDF)**

The Chairman advised states to mobilize at least 30% of the RKVY grants for development of fisheries sector in the state. Prof. Abhijit Sen, Member, Planning Commission mentioned that ear marking of 30% of RKVY funds may not be a desirable strategy, however states should formulate viable projects and seek funding from RKVY which could even be above 30%. The Executive Director, NABARD advised the state governments to send specific proposals through the state finance departments for development of fisheries infrastructure through funding Rural Infrastructure Development Fund.

The meeting ended with vote of thanks.

Sd/-

Prof. K.V.Thomas

Hon'ble Minister of State for Agriculture,  
Consumer Affairs, Food & Public Distribution  
And

Vice Chairman, Governing Body of NFDB

P. Krishnaiah  
CHIEF EXECUTIVE

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## EXTENDED CONCEPT

### GOVERNMENT OF INDIA-FAO COOPERATION IN THE FISHERY SECTOR

India has a high level of competence of Fisheries administration, research and technology support and private entrepreneurship apart from the strengths of local community level institutions and indigenous knowledge and practices of the fishers and practitioners. The Fisheries Division of the Agriculture Ministry at the national level and the Department of Fisheries in the state Governments are doing the fisheries administration.

The different research institutions under the Indian Council of Agriculture Research (ICAR) gives research back up in various areas of Fisheries and aquaculture. The Fisheries Survey of India, does the fisheries resource survey and exploration.

The Marine Products Development Authority (MPEDA) under the Ministry of Commerce and its various societies promote marine products export and various production programmes in aquaculture and capture fisheries. The Coastal Aquaculture Authority of India regulates coastal aquaculture to ensure sustainable development.

For the past 18 months FAO has been in discussion with GOI in developing a strategy for FAO-GOI cooperation in the Fishery Sector. The discussions have resulted in an agreement that FAO should proceed with relevant Fishery Institutions in India to design a programme of that combines Indian expertise in several key priority areas in fisheries and aquaculture with technical support from FAO. In particular the recently created National fisheries Development Board (NFDB) has been identified as a partner together with the Department of Animal Husbandry Dairy and Fisheries (DAHDF) and The Indian Council for Agricultural Research (ICAR)

It is agreed that India now has sufficient in-country technical capacity to undertake appropriate policy and advisory type research, as well as relevant adaptive research and development to promote the fishery and aquaculture sectors. However it is considered that FAO can play an effective role in providing technical cooperation on such programmes and add value in the linking of such programmes and analysis to National and State Policy development mechanisms, as well as State planning and development for the fisheries and aquaculture Sector.

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There does not seem to be a gender or women focused dimension in these programmes which need to be incorporated. Promotion of opportunities for women is one of NFDB's functions.

The conclusion reached is that the NFDB investment programme in the identified priority areas can be co-financed by FAO to cover key technical support inputs as well as programmatic coordination using the FAO TCP programme to cover these technical coordination inputs. The overall programme would be developed into a UTF arrangement between FAO and The GOI to ensure smooth implementation and facilitate the successful delivery of the foreseen products of the programme.

This programme addresses the majority of the core functions of the National Fisheries Development Board through a range of components that span policy and advisory products through to some specific technology transfer. Some key institutional challenges identified by the NFDB which the programme also seeks to address are:

- Limited inter-agency coordination on policy development and national development strategies
- Weak extension of research outputs into practical products for sectoral use.
- Need for technical capacity development of staff of Indian institutions in key emerging areas of the fishery and aquaculture sub-sector.
- o Need to improve awareness of existing experience and expertise in similar tropical developing countries in sustainable fisheries and aquaculture development technologies, approaches and processes.
- o Improved understanding of emerging concepts and approaches in Fisheries management, poor participation of the primary stakeholders in the planning, decision making and implementation

### **Priority areas under the programme**

The priority areas identified in consultation between GOI (DAHDF) are:

#### **1) Climate change adaptation and mitigation plans for Indian fisheries and aquaculture**

- Develop fisheries-climate change scenarios by adapting climate models; with particular emphasis on advice for planning at state and sub-sector level.
- To develop adaptation plans and practices for fisheries/aquaculture sector





- To develop mitigation measures for fisheries/aquaculture sector
- To develop programme for awareness raising in climate change for roll-out with relevant institutions and stakeholders at state level

## 2) Strengthening National and State capacity to manage aquatic animal health

- Development of a regulatory framework for aquatic animal health management
- Capacity building in key skill areas of Epidemiology, Surveillance, Contingency Planning and Import Risk Analysis.
- Strengthen capacity and procedures for biosecurity, quarantine.
- Development of SPF Broodstock and quality seeds.
- Development of a comprehensive surveillance and reporting system.
- Strengthen diagnostic capability at farmer and district levels; accreditation of testing facilities.
- Address food safety issues - through cluster farming; targetted information products for farmers, fish nutrition.
- Effective communication and information dissemination to private sector
- Development of approved lists of chemotherapeutants, preventions & prophylaxis; including traditional or local knowledge products.

## 3) Promotion of cage culture systems in marine and freshwater environments

- Scoping of potential (availability/location of sites, markets species, systems, economic models; expected changes in domestic demand).
- Regulatory needs (environment, loading models, zoning, access)
- Broodstock and seed development (systems for transfer, needs and potential demand).
- Advisory products to State governments on regulatory development needs, and development potential.

- Promotion of small/medium scale seed production in cages in fresh and marine waters (particularly systems for lower cost construction and operation)
- Assessment of potential for ornamental fish production in cage systems

The three priority areas can be addressed through a comprehensive programme to be funded by the NFDB under a Unilateral Trust Fund (UTF) arrangement with FAO

### Operational modality

- The programme components will be funded under a UTF project agreement between GOI and FAO. The UTF will be operated according to standard FAO procedures relating to UTF type projects.
- The individual project components of the UTF will be further split into sub-components and contracts for implementation by competent Indian fishery and aquaculture institutions, typically under a Letter of Agreement (LOA) arrangement with FAO for the services and products which they will be provided.
- These UTF project components will receive technical advisory and backstopping inputs from a complementary FAO funded TCP project which will be developed in support of the UTF, to address the need for international consultancy and FAO technical input from its technical officers.
- FAO will manage the project activities (e.g. LOA's, national consultants, training events, workshops, studies monitoring and evaluation and other activities foreseen) in-country via the FAO Technical Coordination Unit (TCU) to be established under the UTF. The location of this unit might be in Hyderabad.
- The TCU will also have the function of monitoring the delivery of the services and products under the Letters of Agreement (LOA), with the assistance of technical input for international consultants and FAO technical staff.
- The TCU will be responsible for liaison between FAO, NFDB and the component implementation institutions
- The TCU will receive technical backstopping, monitoring and support from FAO technical and operational officers in the Regional Office for Asia and the Pacific, and FAO fisheries Department in FAO headquarters. The FAO country office will monitor all finances and operational aspects in country.

- The TCU will comprise of a FAO national coordinator, FAO programme associate and a Senior Office Assistant.
- The UTF will have an Programme Steering Committee (PSC) which will meet every 6 months to monitor overall programme progress and facilitate inter-ministerial and inter-institutional issues/coordination. The PSC membership will comprise DAHDF, NAFDB, ICAR, FAO, MoEFF.

### **Role of FAO in the partnership**

FAO would manage the UTF and ensure that appropriate technical inputs and coordination aspects related to achieving the relevant degree of cooperation between the various partners under the sub-components. FAO will provide specific technical assistance in the form of technical staff resources from both FAO Fisheries Department and the FAO Regional office for Asia and the Pacific to assist in steering and guiding the development of the components and the peer review of products and outcomes.

#### *Technical advice to the three components*

- FAO will mobilize international consultants and FAO technical staff in support of the technical areas of the UTF project. This will be funded from an FAO TCP.
- Detailed technical inputs in the form of technical consultancy will also be provided in key areas identified under the three components.
- Technical advice will also be provided to the Technical Coordination Unit.

#### *Coordination and monitoring of the programme*

- FAO will recruit a national programme coordinator and assistant to coordinate planning and monitoring the proposed activities under the sub-components in each of the three priority areas, funded under the UTF.
- These personnel will be based within a Technical Coordination Unit to be established using the funds of the UTF.





*Assistance to arrange technical transfer and learning opportunities in the priority areas.*

- FAO will be able to organize specific training and study tour type activities.
- FAO can assist in the development of improved information transfer documents and communication products

*Assistance in appraisal of complementary initiatives that are submitted to NFDB for financial support*

- It is expected that the two-year programme will generate a second wave of supporting or complementary initiatives (typically larger development support type projects) which the NFDB will consider for funding support. The FAO technical inputs will also provide an opportunity for appraisal of these proposals and make recommendations to NFDB as to how relevant they are or how they could be improved or strengthened.



## Personnel requirement under the UTF for programme coordination and support (24-36 months)

The FAO Technical Coordination Unit will be developed in an appropriate location and will have the minimum personnel as follows:

- *FAO national coordinator (P3/P4 grade)*: A post graduate in fisheries science or related subjects with minimum of 20 years experience in fisheries and livelihoods development programmes working with Government, reputed Non Governmental Organizations and preferably also UN or other International agencies.
- *FAO programme associate (G5 grade/National Professional)*: A post graduate in fishery sciences with 5 years experience in Government, research/ training institution or reputed NGO. Experience in facilitating technical interventions, project monitoring, organizing trainings.
- *Senior Office Assistant (G3/NPP)*: Graduate with minimum 5 years experience in administrative and office procedures, arranging contracts, logistic arrangements for travel, facilities /arrangements for external experts, trainings, workshops etc.

## Budget and funding under the UTF

FAO will develop a budget and the funding to run the Coordination unit plus FAO's administrative cost would be paid by the Government of India through the UTF. This will include:

- The FAO Coordination unit personnel, who will be recruited by FAO directly in consultation with NFDB. Their salary benefits and travel eligibilities would be according to FAO norms. The payments would be made by FAO.
- Minimum office equipment and maintenance cost would be provided by FAO for the unit from the budget.
- The operational costs and all national staff, national consultants, their travel; workshops, training and equipment costs related to the three components in the programme will be covered by the UTF.

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2 Probably in Hyderabad to benefit from proximity to NFDB (although NFDB itself may lack adequate office space) and convenient access to other locations. This also enhances the coordination function

3 These grades have to be verified



Component 1	\$3,000,000
Component 2	\$4,500,000
Component 3	\$3,000,000
Coordination unit personnel	\$300,000
Coordination unit operational costs	\$90,000
FAO servicing costs	\$1,365,000
<b>Total</b>	<b>\$12,255,000</b>

### Co-financing of the UTF under FAO TCP programme

As co-financing to the UTF, FAO will develop a 24-month TCP project (~US\$460,000) to cover the costs of international technical support to the UTF programme. These costs cover consultants, FAO staff, their travel and subsistence, as well as the cost of monitoring and evaluation of the Project.

#### *International consultancy*

- Planning and guidance on policy level work (integrating regulatory and management frameworks (e.g. zoning; health; policy products)
- Technical training (e.g. IRA, surveillance, guidance on development of training courses)
- Monitoring of outputs
- Appraisal of other proposals to NFDB

#### *Regional consultancy (under TCDC mechanism)*

- Specific training courses or hands on training (e.g. production methods; diagnostics etc.)
- Writeshops/communication and information material development

#### *Technical backstopping for FAO staff( TSS)*

- Peer review of outputs
- Planning of programmes
- Identification and management of consultancy inputs
- Appraisal of other proposals to NFDB
- Monitoring

4 A UTF project of this size would have a mandatory evaluation procedure. The cost of this would normally be covered within the UTF.





## Component 1: Climate change adaptation and mitigation plans for Indian fisheries and aquaculture

### Background

Investigations on the impact of long-term trends in climate change on fisheries were initiated in India in 2004 with the Indian Council of Agricultural Research (ICAR) Network Project “Impact, adaptation and vulnerability of Indian fisheries to climate change”. In the last six years considerable insights have been gained on the impacts, adaptive capacity and vulnerability hotspots with reference to fisheries and climate change. It is understood that long-term climate change has important feedback loops to global ocean circulation patterns, sea level rise and changes in climatic factors like rainfall and temperature, extreme events, all of which affect the biological properties, distribution and abundance of species.

Investigations by the scientists of ICAR have indicated changes in

- Hydrographic features in freshwater, brackishwater and marine systems;
- Geographic distribution pattern and abundance of commercially important fishes;
- Low-value species with higher adaptive capacity are likely to dominate, which will cause economic erosion to the fishermen;
- Faster growth and decay rates, and changes in species mix of plankton at elevated temperatures;
- Vulnerability of sedentary aquatic species to warming;
- Recruitment and seed availability for aquaculture;
- Phenology such as shifts in spawning season to cooler months and prolonged breeding.

The above mentioned changes indicate that the structure and function of aquatic ecosystems are likely to change. Research also indicates that sea level rise, sea erosion and extreme events such as drought, flood and cyclones will increase the vulnerability of fishermen and fish farmers.

The investigations by ICAR institutes provide scope for advanced research on climate - fisheries models to develop scenarios at ecosystem level. Development of short term and long term scenarios is required to evolve adaptation strategies for sustaining fisheries and aquaculture.

The gaps in our understanding are: climate modeling, scenarios and downscaling at ecosystem level; and developing adaptation and mitigation planning and practices. Interaction with international organizations like FAO will facilitate developing of climate change scenarios, adaptation and mitigation options and strategies on fisheries and aquaculture in India. As the research projects of ICAR are progressing, there will be a flow of information from those projects, which will support this new initiative.

### Objectives of the component

- Development of fisheries-climate change scenarios by adapting climate models; with particular emphasis on advice for planning at state and sub-sector level.
- To develop adaptation plans and practices for fisheries/aquaculture sector
- To develop mitigation measures for fisheries/aquaculture sector
- Climate sensitized groups developed through programme for awareness raising in climate change for roll-out with relevant institutions and stakeholders at state levels

### Objective 1: To develop fisheries scenarios by adopting climate models

ICAR institutes have collected time series data on catch and abundance of different fish groups and on their biological characteristics and also production from aquaculture systems. Time series data on climatic and hydrographic parameters are also available. The potential partnering institutions, namely, Indian Meteorological Department (IMD) and Indian National Centre for Ocean Information Services (INCOIS) have data series and expertise on physical oceanographic processes. All these Institutes have the expertise to analyse and interpret the data. (i) A synchrony among the Institutions with technical assistance from FAO will be helpful to develop climate modeling, downscaling at ecosystem level and evolve scenarios. These scenarios should take into consideration the complexities of tropical fisheries and ecosystems. (ii) Capacity building for development of appropriate climate models and scenarios relevant to Indian fisheries is required. (iii) The developed scenarios will have to be disseminated to sensitise different user groups such as research institutions, central and state government officials, fisheries managers and fishermen groups by conducting workshops, meetings and awareness campaigns (under Objective 4).

Potential Partnering Institutions: Central Marine Fisheries Research Institute (CMFRI), Central Inland Fisheries Research Institute (CIFRI), Central Institute of Brackishwater Aquaculture (CIBA), IMD, INCOIS, NFDB and FAO

### Outputs

- Capacity building for development of appropriate climate models and scenarios relevant to Indian fisheries
- Communication of the Climate change scenarios to appropriate stakeholders

### Objective 2: To develop adaptation plans and practices for fisheries and aquaculture sector

Response to gradual and abrupt climate change events require appropriate adaptation plans and strategies. This would entail investments in flexible technologies and flexible processing





chains, or the ability and opportunity for alternative livelihoods during critical periods. Management plans for sustainability of fisheries and aquaculture in the context of overfishing and overcapacity are advocated by ICAR institutes from time-to-time. (i) Climate change inclusive adaptation plans need to be developed for the country. (ii) Capacity building for development of adaptation responses relevant to Indian fisheries is required at different user levels. (iii) The plan may include action plans, implementation strategies and cost of implementing the plans. (iv) Networking of central and state government officials, scientists, fishermen and fish farmer groups/associations to implement the plans may be indicated. (v) Incorporating the action plan into the National and State Action Plans on Climate Change is also necessary.

Potential Partnering Institutions: Central Marine Fisheries Research Institute (CMFRI), Central Inland Fisheries Research Institute (CIFRI), Central Institute of Brackishwater Aquaculture (CIBA), MoEF, Ministry of Agriculture, NFDB and FAO

### Outputs

- Capacity building for development of adaptation responses relevant to Indian fisheries at different user levels.
- National Climate change inclusive adaptation plans developed
- Incorporation of the action plan into the National and State Action Plans on Climate Change

### **Objective 3: To develop mitigation measures for fisheries and aquaculture sector**

The primary mitigation route for the sector lies in its energy consumption, through fuel, raw material use and production. As with other food sectors, distribution, packaging and other supply chain components also will contribute to the sector's carbon footprint. Net mitigation contributions of fisheries, aquaculture and related supply chain features are small in overall terms. It is estimated that the contribution of CO<sub>2</sub> emission by fishing boats of India to the country's total emission is about 0.5% only. Although a relatively small global contributor, capture fisheries have a responsibility to limit GHG emissions as much as possible. There is scope for reducing emission by fishing and aquaculture sector by following mitigation measures. For this, (i) primary data have to be collected for life cycle assessment (LCA) of carbon emission in fisheries and aquaculture, and from harvest to post-consumer wastes. (ii) Indicative mitigation measures have to be identified to reduce carbon dioxide emission and by sequestering carbon. (iii) The indicative mitigation plan may include action plans, implementation strategies and cost of implementing the plans. (iv) A network of organizations and agencies to implement the strategies needs to be identified.





Potential Partnering Institutions: Central Marine Fisheries Research Institute (CMFRI), Central Inland Fisheries Research Institute (CIFRI), Central Institute of Brackishwater Aquaculture (CIBA), MoEF, The Energy Research Institute, Ministry of Agriculture, NFDB and FAO

### Outputs

- LCA for key carbon emitters completed, with recommendations for mitigation approaches
- Costed action plan for mitigation strategies

**Objective 4: To develop programme for awareness raising and sensitization in climate change for roll-out with relevant institutions and stakeholders at state level**  
There is a critical gap in the communication of climate change scenario, mitigation and adaptation information to the planning and policy process. This is most acutely felt in the gap between the scenario development process and the state level planning. The development of State Action plans on climate must be informed by the ongoing analytical and modelling activities which have covered the fishery and aquaculture sectors.

### Outputs

- Training programme for State Level officers in fisheries/aquaculture and related sectors
  - Integration of a climate awareness component in NFDB/DAHDF training activities
- Component 2: Aquatic Animal Health Management in India**

The Group on 'Aquatic Diseases' constituted for the Consultative Meeting has been tasked to prepare framework for expanded Concept Note on 'Aquatic Animal Health Management in India'. In this regard the Group is required to review the status of aquatic animal health management in the country, identify the products that would accrue from a focused programme on aquatic animal health management, develop a Gantt chart on the activities keeping a time-frame of approximately two years and also suggest the funding requirements for carrying out the programme.

Aquaculture has been the fastest growing sub-sectors of the fisheries sector in India. Since the early eighties when scientific fish farming practices gained roots in the country, the growth of aquaculture has been phenomenal. Presently, aquaculture contributes about 45 percent (?) of the total fish produced in India. Within aquaculture, freshwater carp culture dominates followed by Pangasius sp. and shrimps. Besides general health management concerns of the farmed species, the Epizootic Ulcerative Syndrome (EUS) in freshwater fishes and White Spot Syndrome Disease (WSSD) in shrimp aquaculture have been the main causes of large-scale mortalities in the country. Since aquaculture is poised for much higher

growth in the coming years, it is essential that all aspects of the farming system, including health management are adequately taken care of.

Animal husbandry practices have been plagued with diseases and health management issues since time immemorial and aquatic animals are no exception. From time to time diseases and poor health management in aquaculture have caused large-scale economic losses to farmers and to national economies. The losses caused by the EUS in freshwater fishes and WSSD in shrimp aquaculture are well known to us. More recently, intensification of farming practices, the unplanned introduction of exotic aquatic species and unregulated transboundary movement of aquatic animals have been the main reasons behind many epidemics. Further, inadequate scientific knowledge and lack of skills and capacities in handling such contingencies have compounded the problem.

Although many remedial measures and protocols and practices have been developed in recent years in tackling aquatic animal health issues, yet more concerted efforts encompassing good farm management practices, improved skills and capacities of the managers and farm workers, sound prophylactic and disease control measures and effective community networking are necessary to improve the situation.

The Objectives of the programme on 'Aquatic Animal Health Management' would be to

- Develop National and State level systems for disease surveillance, early warning system, import risk assessment and contingency planning
- Development of a regulatory framework for aquatic animal health management and strengthen national and state regulatory capacity
- Improve diagnostic capabilities
- Promote best practices for management of aquatic animal health.

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5 Initially a two year programme is suggested keeping in mind that the FAO contribution to the programme is likely to come through their TCP (Technical Cooperation Programme) arrangements, which usually have a two year life span.



## Outputs

### *Development of a regulatory framework for aquatic animal health management*

- Functioning of a national level body with necessary responsibility and mandate to implement a 'national health management strategy' or 'Health management regulation' on the basis of existing international standards, guidelines or recommendation from FAO, OIE and NACA and WTO
- Existing policies and programmes on aquatic animal health management revised (including the role of State/ Union Territory Governments and the Research Institutions).
- Develop recommendations for required infrastructure (aquatic animal health laboratories and diagnostic capabilities in both public and private sectors; establishment of quarantine infrastructure and their functioning).

### *Development of a national programme for surveillance and reporting*

- Development of a national programme of aquatic animal health surveillance and reporting mechanism
- Develop one national network program to progress the implementation of epidemiological studies for key national diseases of concern
- The capabilities of reporting diseases by the states through local fishery institutions needs to be strengthened. Farmers sensitized and encouraged to report

### *Strengthen capacity and procedures for bio security, quarantine at National and state Level*

- Establish protocols for importation risk assessment
- Recommendation of national and State system for regulation of introductions and movement
- Development of a quarantine system and quarantine guidelines
- Sensitization of farmers on biosecurity requirements.
- Capacity building/training on IRA in collaboration with NACA
- Conduct IRA for species likely to be imported in the near future and identify key transboundary issues in aquatic animal health management.
- Capacity building in contingency planning

### *Strengthen diagnostic capability at farmer and district levels; accreditation of testing facilities*

- Accreditation of laboratories and strengthening of existing diagnostic laboratories and the facilities and capacity building at regional level by creating diagnostic facility at district level.
- Training of human capacity this. This requirement is to be addressed at

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6 While developing the expanded Concept Note, the work carried out under the FAO-NACA Regional Guidelines on Transboundary Movement of Aquatic Animals and the FAO/GOI/ GoAP Technical Cooperation Programme on Health Management in Shrimp Aquaculture will be incorporated into the Note.





- national level
- Identification of field level diagnostic kits that are available at an affordable cost.
- Level three diagnostic/detection system Greater on-farm technical support, involving better diagnostic capabilities in the field as well as the laboratory.

*Development of SPF Broodstock and quality seeds*

- Develop recommendations on the design and management of SPF broodstock facilities based on internationally accepted norms and scientific evaluation.
- Develop protocols for Improved screening of wild broodstock and monitoring mechanisms for good quality seed

### Implementing partners

The proposed programme will be a multi-party activity, with the following key players:

The Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture	Including its constituents such as the National Fisheries Development Board Coastal Aquaculture Authority
The Indian Council of Agricultural Research (through its Research Institutes)	Central Inland Fisheries Research Institute Central Marine Fisheries Research Institute Central Institute of Fisheries Education Central Institute of Freshwater Aquaculture Central Institute of Brackishwater Aquaculture National Bureau of Fish Genetic Resources Directorate of Coldwater Fisheries and the concerned Colleges of Fisheries
The Ministry of Commerce	Marine Products Export Development Authority and its constituents such as the National Centre for Sustainable Aquaculture - NaCSA and Rajiv Gandhi Centre for Aquaculture- RGCA
The Ministry of Environment and Forests	Central Pollution Control Board and the State Pollution Control Boards)
Department of Fisheries of the States and Union Territories State/ Union	Agencies such as the Fish Farmers Development Agencies (FFDAs and Brackishwater Fish Farmers Development Agencies BFDAs)
	Non-Governmental and Civil Society Organizations working in the field of aquaculture and related activities Fin and shellfish farmers.

### Component 3: Promotion of cage culture in marine and freshwaters

#### Objective 1 – Promotion of locally appropriate cage aquaculture for water body user groups

Culture of fish and prawns in cages and pens is a viable option for enhancing production from open waters like reservoirs and wetlands. Design of such structures and technology for their operation have already been developed by various research institutes at pilot scale. There is potential of upscaling and India does possess extensive water resources which offer opportunities to do this (3.15 million hectares of reservoirs, 340,000 hectares of floodplain wetlands). The wider adoption of these technologies can result in substantial increase in fish production in India and consequent contribution to livelihoods and income generation amongst producers. The promotion of cage aquaculture in open waters raises serious issues related to regulation governance and social equity which can be considerable obstacles to the wider scale take-up of these production systems and must be addressed simultaneously with any technological promotion effort. Irresponsible development of cage aquaculture has created problems with overloading of carrying capacity, environmental sustainability, conflicts with artisanal fishing and disease issues. This project proposes to develop norms for large scale adoption of this production system, within a responsible management and regulatory framework.

#### Objectives

- Development of a package of appropriate , field tested practices for freshwater cage aquaculture suitable for wider scale adoption
- Development of recommendations for a management framework and guidelines for adoption and scale/intensity of operation for environmental sustainability in different types of water body
- Conflict resolution mechanisms among different stakeholders and regulatory policy guidelines on access and resource use/sharing

#### Outputs

*Establishment of pilot scale production unit in 16-24 waterbodies representing different situations*

- Scaling up of cage/pen culture technology adoption for *in situ* production of fingerlings/juveniles of commercially important finfish/shellfish species
- Development of location specific adaptation of technology(including in situ seed production; low cost cage materials; local feed production and feeding protocols)





- Support to establishment of water body management groups (Community based groups); 16-24 groups, approximately 2,300 individuals.
- Address marketing challenges and constraints

*Development of regulatory and management recommendation for cage aquaculture in freshwater bodies( including reservoirs and floodplains)*

- Assessment of environmental impact of cage/pen culture in aquatic systems and developing appropriate model for sustainable production
- Develop advisory guidelines on carrying capacities, zoning and other regulatory and management aspects related to cage culture development in open waters.
- To evolve approaches for regulatory policies for conflict resolution among stakeholders
- Address legal and institutional barriers/constraints related to water use and culture site access/usage rights

## **Objective 2 - Cage culture of marine and brackishwater finfish**

Sea cage farming is still in its infancy in India when compared to many Asia-Pacific countries. For the first time in India a marine cage was successfully launched and demonstrated at Visakhapatnam, in the east coast of India by the Central Marine Fisheries Research Institute. Asian sea bass (*Lates calcarifer*) was stocked during the first stocking as a trial. Successful harvesting was done after four months. Several demonstration cages are deployed in different parts of our coast with fishermen participation and successful harvests could be made at many places. In addition to sea bass, lobster fattening, farming of mullets and brood stock development of cobia, pompano, grouper and red snapper and grow out of hatchery produced marine ornamental fishes are also being carried out.

Marine cage culture offers potential for economic development and employment if it is conducted responsibly. India does not currently have a comprehensive strategy for use of coastal and marine environments. Economic growth of India indicates increasing demand for mariculture products, but the extent and location of this domestic demand has yet to be comprehensively addressed. There is a need for effective regulatory frameworks for the use of marine and coastal areas if cage aquaculture is going to be undertaken sustainably and not result in the common problems of overcrowding conflicts, and disease that have occurred in many other areas where this activity has been initiated without adequate preparations.





The national potential for mariculture of marine finfish has not been undertaken comprehensively although it is considered that brackishwater finfish culture has potential in the saline lakes (Chilaka, Vembanad & Pulicat) estuaries, lagoons and deep creeks using species such as Asian Seabass (*Lates calcarifer*), compatible herbivorous fish like Grey Mullet (*Mugil cephalus*), Milkfish (*Chanos chanos*) and Pearlspot. With appropriate policy for rational utilization, some of these suitable areas in the brackishwater areas may be used for cage farming and could emerge as an activity of livelihood options for coastal folk, employment and additional income proportions to SHGs

### Objectives

- Development of recommendation of an Indian national and State Government regulatory framework for the development of marine and brackishwater cage aquaculture (site selection, environmental capacity, zoning, access, rights , health etc.)
- Development cost effective cage culture systems suited to Indian sea conditions
- Development of an economically viable and socially acceptable sea cage farming management practices
- Development of a public private partnership model for sea cage farming in India
- Capacity building for sea cage farming in India

### Outputs

*Assessment of the future projected demand for marine finfish, likely species in demand, identification of scale and location of growth domestic markets.*

- Economic projection and market analysis (to 2030) of growth of demand for marine finfish for aquaculture( price effects on demand/substitution)
- Development of Strategies for harvesting and marketing( Information on market intelligence( planning for harvesting and marketing during fishing ban period / period of high demand and maximum price). Selective harvesting to avoid harvesting undersized fish.

*Assessment of the India potential for marine feeds development and reliance on imported resources versus domestic production.*



- A key aspect of this study will be the economic effects on prices of lower value fish, the impact on fishing strategies in coastal areas, effects on discarding and other impacts or benefits which may be realized.
- The implications for marine fishery management will also be included in this.

*Develop appropriate policy and regulatory frameworks for the use of brackishwater and coastal areas fish culture.*

- Development of an India-specific criteria for site identification and selection.
- Legal aspects to site licensing/leasing, access rights, ownerships etc. - In particular ensuring that there is equitable local participation, the avoidance of social conflicts
- Identification of Indian inventory of suitable sites for marine cage aquaculture based primarily on environmental parameters
- Development of environmental carrying capacity models to ensure impacts of marine and brackishwater finfish culture remain within acceptable and sustainable environmental limits.

*Development of India specific technology for cage culture and seed production linked to training as household occupation.*

- Developing improved versions of cost effective cages. Design and fabrication of cages using new materials like GI pipes etc and testing them in field conditions. Use of new net materials and testing them in the field conditions
- Developing new mooring and anchoring systems (eg. Dyneema) suited to different areas (sea conditions) in India
- Control of Fouling of net cages (Evaluation of different antifouling materials in the collar and net cage; Developing expertise in the periodic net cage exchange technique)
- Development of nursery rearing protocols in cages (Design and fabrication of suitable nursery cages for rearing hatchery produced juveniles; Development protocols for nursery rearing and management in cages)
- Developing cost effective feeds for several key finfish species (Development of commercial grow out feeds and mechanization of feeding; Formulation and testing of suitable cost-effective grow out feeds for the carnivorous and herbivorous species selected for farming; development of mechanized devices for feeding in the cages)



- Development of Public private participation for nursery rearing and cage farming

#### *Development of ornamental finfish production*

- Development of management protocols for Ornamental fishes in cage farming and marketing strategies
- Design and fabrication of small cages suitable for rearing hatchery produced ornamental fishes in shallow protected areas.
- Development of protocols for growing the hatchery produced juveniles of ornamental fishes to marketable size.

### **Objective 3 – Brood Stock Development, Seed Production of High Value Marine Finfish**

Mariculture of marine finfish has been growing rapidly on a global basis especially with the development and expansion of sea cage farming. One of the major reasons for the growth of sea cage farming is the availability of breeding techniques that can produce sufficient quantity of seeds of different high value marine finfish. Many countries in the Asia-Pacific Region like Australia, China, Japan, Taiwan, Philippines, Indonesia, Thailand, Malaysia and Vietnam have made substantial progress in the development of commercial level seed production technologies of high value finfish suitable for sea farming driven by booming domestic and intra-regional markets for their products. But even in these countries, seed stock supply is one of the vital issues for further expansion of mariculture.

In India marine finfish mariculture is still in its infancy and hence there is an immediate need to develop commercial level seed production and farming technologies for selected high value marine finfishes. There has been limited research attention paid to developing seed production methods for high value finfishes suited for sea farming so far, mainly due to the lack of clear market demands, although this situation could be changing quickly. India currently has commercial seed production for only one marine finfish—sea bass (*Lates calcarifer*) and private entrepreneurship has not yet been developed. Commercial level seed production of marine finfish species his remains an area where expansion and commercialization of sea farming in India is the availability of suitable seeds of high value finfishes.

Broodstock development of marine foodfishes is a capital intensive and time consuming process and can be mainly done in sea cages or in highly sophisticated land based bio-secure raceway systems. In addition, genetic management of broodstock in relation to source,





quality and management with special reference to impacts of domestication is also essential. The development of healthy broodstock of the required finfish cannot be done by small-scale entrepreneurs and during the initial start-up period this typically require state support until the Private sector becomes sufficiently established to start hatchery and nursery enterprises. Even then, in many countries state support to the sector remains in the form of broodstock maintenance operations. In the longer terms, these start up operations could be further developed into National Marine Finfish Broodstock Centres, from where newly hatched yolk-sac larvae of the required species can be supplied to private sector hatcheries for further larviculture.

Training farmers in nursery rearing and farming/marketing will kick start awareness on opportunities for higher value finfish farming and enable limited supplies of these species to become available to entrepreneurs. In the longer term, this may form the basis for private sector hatchery and nursing development.

### Objectives

- Establishment of broodstock development centres for cobia (*Rachycentron canadum*) and pompano (*Trachinotus blotchii*) at Mandapam, for the grey snapper (*Epinephelus tauvina*) at Visakhapatnam and the red snapper (*Lutjanus argentimaculatus*) at Karwar in sea cages.
- Development of bio-secure brood stocks of the four species by incorporating in the feed ingredients for maturation and viability of gametes and following disease management protocols
- Standardization of induction of spawning and larviculture protocols for seed production.
- Front-line demonstrations on nursery rearing and grow out in sea cages by participatory approach with fishermen NGOs, SHGs and private industries

### Outputs

#### *Design and fabrication of broodstock holding cages and standardization of brood stock development*

- Transportation method for brood stock using different anaesthetics and temperature control
- Cages of different sizes and designs will be tried and the best will be selected, and protocols for the maintenance and management of cages will be developed.
- Evaluation of feeds and standardization of broodstock nutrition



- Development of environment management strategies and health protocols for broodstock

*Development of maturation and spawning protocols*

- Maturation through hormonal, nutritional and environmental manipulations (photo-thermal conditioning)
- Assessing of maturation of gonads through canulation and microscopic examination of milt
- Spawning induction

*Standardization of techniques for larviculture and nursery rearing*

- Live feed suitable for the larvae will be cultured and nutritional enrichment protocols will be developed
- Experiments will be conducted to evaluate the growth and survival of larvae reared in different feed regimes
- Effect of water quality on the survival of the larvae will be studied
- Nursery rearing protocols will be developed for each species

*Disease investigation and management protocols in finfish hatchery and grow-out*

- Presence of parasites on the brood stock and larvae will be checked
- Health management protocols will be developed for both brood stock and larvae