

CHAPTER - IX

FISHERY

There are about 3.91 lakh hectare of water area in the State in the form of rivers, *beel*, derelict water bodies and ponds and tanks. Scientific fish farming in the State, in natural water bodies has been mostly traditional capture fishery only. The scientific fish farming is practiced generally in individual and community tanks. Recently emphasis has been given for scientific fish farming in *beels* and community tank through awareness, training, government support and subsequent bank linkage. There is a positive trend in fish productivity during recent past. The State is yet to reach self-sufficiency in fish production in respect of economic as well as minimum nutritional requirement of 11kg/Person considering 90% of the state's population is fish eating. The gap is partially maintained by import of fish from other states.

Fishery sector has a higher growth rate than other agriculture and allied sectors and could play a pivotal role in the socio-economic development and employment generation in the State. Department of Fishery has been implementing a number of schemes in the State with a view to achieve self-sufficiency in fish production and socio-economic development of poor section of the society. Fish farming is gradually gaining popularity in the State, as farmers have taken up fish seed farming and fish farming on commercial scales as a result of extensive awareness campaign by the Department. Fish production in the State during 2009-10 is 218 thousand tones which is 5.82 percent higher than 2008-09.

In view of the importance of the sector in providing nutrition to the people , employment generation and livelihood to the rural sector, and in view of the bright prospects for the sector to grow further, State Government has been giving due emphasis to the sector. Total annual plan allocation for the sector during 2009-10 was ` 3990.00 lakh. Government is also facilitating easy institutional credit to the sector.

Fishery Resource and Fish Production

Assam is one of the richest state in the country with surface water resources where *beel* fisheries and pond & tank fisheries alone occupies about 1.40 lakh hectares area. Besides swamps and low-lying areas, two major rivers and their tributaries have a high growth potential for scientific fish farming/ fishing and could play a pivotal role in the socio- economic development and employment generation in the State. Although the scope for utilization of the potential water spread area for profitable economic activity in terms of fish farming/fishing is very high, yet at present scientific fish farming/fishing is carried out in only 5 percent of the total water resource area [3.91 lakh hectare]. To support this sector, availability of quality fish seed of standard size is essential which needs to be addressed with adequate efforts. To ensure protection of fingerlings, Government of Assam had introduced the Assam Fish Seed Act, 2005 which is the first of its kind in the country.

The statistics of fisheries on inland water bodies and annual fish seed & fish production in Assam is presented in the tables 9.1 and 9.2.

TABLE-9.1
PRODUCTION OF FISH SEED AND FISH IN ASSAM

Sl No	Year	Production of Fish Seed (in million Nos)	Production of Fish (in tone)
1	2004-2005	2741.47	186314
2	2005-2006	3207.99	187378
3	2006-2007	2062.61	181479
4	2007-2008	3206.61	190320
5	2008-2009	3429.30	206700
6	2009-2010	3326.22	218824

Source: State Fishery Department.

TABLE-9.2
STATISTICS OF FISHERIES ON INLAND WATER BODIES, 2009-10

Sl. No	Resource	Water Spread Area (Hectare)
1	River Fisheries	205,000
2.	Beel/ Fisheries	100,815
3.	Forest Fisheries	5,017
4.	Derelict Water Bodies/ Swamp	39,240
5.	Reservoir Fisheries	1,713
6.	Ponds and Tanks	38,767
	Total	39,0552

Source : State Fishery Department.

Activity and Programme of The Department During, 2008-09 and 2009-10

Fish Seed Farming

During the year 2008-09, 10 Departmental fish seed farms and 94 hectare of nursery and rearing water area of individual farmers have been developed for quality seed production. During the year 2009-10, 347.89 Lakh has been received for establishment of 37 nos of hatcheries for Indian Major carp, 3 nos, Magur breeding hatcheries, 3nos. and Chital breeding hatcheries 3 nos.

Aquaculture Development through FFDA

During the year 2008-09, 43 hectares of water area has been developed covering 210 individual fish farmers. During the year 2009-10 ` 483.00 Lakh has been received through which 190 ha of water area have been developed covering 1000 nos. individual fish farmers.

Reclamation of Derelict Water Bodies

Aim of the Scheme is to reclaim the water bodies for enhancement of fish production in the State and also provide employment to the rural unemployed youth. During the year 2008-09 an amount of ` 409.90 lakh has been received for reclamation of 289 hectare of derelict water bodies and an amount of ` 958.00 lakh have been drawn during the year 2009-10 for reclamation of 660 haectare derelict water bodies.

Women Empowerment Programme

Empowerment of women has been a priority issue before the State Government. In response to the said policy of the State Government, the Fishery Department extended the benefit of fish seed raising programme involving the women in this sector. Under this programme house wives are supported by training and inputs for rearing of fish seed in the backyard ponds as part time employment for economic upliftment. During the year 2009-10 an amount of ` 150.00 lakh was received for the purpose and 3000 women has been benefited.

Development Of Beel/ Open Water / Community Fishery

During the year 2008-09, about 22 hectare of water area in Kamrup, Jorhat and Lakhimpur have been developed under SCSP. During the year 2009-10 an amount of ` 190.00 lakh have been received and about 136 hectares of water area has been developed under SCSP.

Employment Generation Scheme through SHG

This scheme is introduced to engage unemployed youth of the locality in fish farming where low-lying areas are available. During the year 2008-09, ₹ 299.66 lakh has been received through which 224 SHGs covering 2250 beneficiaries for creation of 20 hectares nursery tanks, 24 hectares of rearing tank for the purpose of quality seed production and 30 hectares of stocking tank for fish culture. During the year 2009-10 ₹ 150.00 lakh has been received through which 300 hectares of water area have been developed benefiting 251 nos. of SHGs by this scheme.

Assam Agricultural Competitiveness Project (AACP)

During the year 2008-09, about 896 hectare of Farmers Pond and Community Tank, about 85 hectares of Integrated Fish Farming and 76 hectare of *Beel* Fisheries were developed with community participation. During the year 2009-10 an amount of ₹ 444.00 lakh has been received and about 197.39 hectare of Farmers Ponds were developed and 2505 nos. of fish farmers have been benefitted under this Project.

New Initiative

With a view to achieve the goal towards self sufficiency in fish production and to create awareness about the development programmes/ schemes that are implemented in the State, following new initiatives have been undertaken by the Department of Fishery. Some of those are as follows:

Matsya Mitra

To support limited field level officers in extension services Govt. has initiated a new scheme in the name of Matsya Mitra. In the scheme educated unemployed youth are trained in scientific fish farming in a crash course in Raha Fishery College. The trainees are provided with a kit box required for testing of different aspects in fish farming. The trainees are supposed to undergo field exposure under Extension Officer for gaining necessary practical knowledge for imparting to neighbouring fish farmers at Gaon Panchayat Level. Already 290 nos. of youth have been trained in 10 Districts.

Training on Aquarium Maintenance

To exploit new employment avenues among educated unemployed a new innovative training on Aquarium maintenance was started in College of Fisheries, Raha in collaboration with NABARD. Already 44 unemployed boys and girls have undertaken the training and many of them started their own business of ornamental fish and aquarium. During 2008-09, another 20 young boys and girls were trained on aquarium business in collaboration with Micro Small & Medium Entrepreneurship Development Institute, Govt. of India, N.E. Regional Office, Guwahati.

Live Gene Bank

Many local species are threatened due to various man made factors for which extra care is necessary for their conservation. Therefore, a joint venture has been taken up with National Bureau of Fish Genetic Research, Lucknow for conservation of local endangered economically important fish species in the name of Live Gene Bank. The Gene Bank has been started at improved pond of Ulubari Fish Seed Farm, Guwahati. Species like Sol, Pavo, Cheniputhi and Chital has been introduced in the pond for their natural growth and propagation and conservation for future use and research.

Block Level Awareness Campaign

Keeping in tune with the spirit of the State Government to bring the administration to the door steps of the

people, the Fisheries Department has organized fisheries awareness camps in 207 development blocks of the State during December, 2009 and January, 2010. This drive has received enormous response from the fish farmers, fishery entrepreneurs, bankers, PRIs, NGOs etc. As a result, more than one lakh applications were received throughout the State during this campaign from the people taking up fisheries schemes.

Ornamental Fish Culture-Breeding Growing and Export

Ornamental Fish breeding growing and export has gained importance during the last few years for the domestic as well as foreign process. A few young entrepreneurs come forward to take up this activity as income generating opportunity. A few SHG have also come forward for taking up ornamental fish breeding and aquarium keeping business under the assistance of State Government.

Assam Matsya Mahotsav 2010

Assam Matsya Mahotsav 2010 was held during 30th, 31st January & 1st February, 2010 at Silpgram, Guwahati for the third consecutive year to create awareness among the fish farmers and provide a platform to all stake holders for discussion, exchange of ideas and dissemination of fisheries technologies. More than 1000 fish farmers and scientists, researchers from various ICAR institutions, National Fisheries Development Board, Bankers attended the Mahotsav besides academicians from Gauhati University, Dibrugarh University, College of Fisheries, Raha. The activities include exhibition, seminars, workshops and various competitions.

Assam Fisheries Investment Facilitation Centre

A single window system to facilitate institutional credit to farmers and entrepreneurs was established at Panbazar, Guwahati during the year 2008. Officials of the centre are extending support to the farmers to prepare detailed project proposal with the help of experts. Farmers get first hand information from the Bankers and Technical consultants in the Facilitation Centre. A special initiative has been undertaken to enhance credit flow through financial institutions like Assam Gramin Vikash Bank, State Bank of India and United Bank of India. An amount of ₹ 8.50 Crore has already been sanctioned to the fish farmers by the various financial institutions like SBI, UBI, Assam Gramin Vikash Bank and Indian Overseas Bank.

National Fisheries Development Board (NFDB)

National Fisheries Development Board (NFDB), an autonomous organization under the administrative control of the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Govt. of India was established as a nodal agency to work towards blue revolution with a focused attention basically aimed at fish production in the country. The NFDB was envisaged to serve as a platform for co-ordination of different agencies working in the field of fisheries with an end to end approach. In recent times sustainability of fisheries is being bestowed a lot of importance due to gradual depletion of natural fishery wealth owing to overexploitation with no equivalent replenishment of natural stocks. This trend is paving way for emphasis on substitution of fishery wealth through aquaculture for augmenting fish production. For addressing the issues related to enhancement of production through sustainable approach, NFDB has formulated various activities. Accordingly the Department of Fisheries, Assam implemented the following activities during the year 2009-10 with support from NFDB.

- Training & Demonstration
- Construction of Eco-hatchery
- Construction of Fish feed Mill
- Construction of New Pond
- Renovation of Existing pond

- Block level awareness Camps
- Development of existing Departmental Farm

The Department is also implementing a number of schemes under Rastriya Krishi Vikash Yojana.

Rastriya Krishi Vikash Yojana (RKVY)

The scheme was introduced during 2008-09 in Fishery Department. During the year, an amount of ` 20.00 Crore has been received for development of 295 hectares of existing pond, 96 hectare of low-lying area, 174 hectare for construction of new pond, 221 hectares for creation of nursery and rearing pond, 20 hectare for pig cum fish culture to cover 2270 farmers. Under this scheme farmers are supported by 50% subsidy against the schematic cost. Zila Parishads recommend the list of beneficiaries under RKVY. In addition, one fresh water prawn hatchery has been completed at Guwahati and other two prawn hatcheries will be established shortly. During the year 2009-10 an amount of ` 5.00 Crore has been received for development of 49.90 hectares of existing pond, 40 hectares of low-lying area, 100 hectares for construction of new pond, 10 hectares for creation of nursery and 150 hectares of rearing pond by covering 1477 nos. of fish farmers.

Development Action Plan for 2010-11

An amount ` 2590.00 lakh has been allotted during 2010-11 for taking up some innovative programme as well as for continuation of on going developmental scheme under the fishery sector. In order to achieve self sufficiency in fish production and generating self Employment, the State Fishery Department has given emphasis on the following components.

- Generation of self-employment through popularizing scientific fish farming practice.
- Provide extension service for undertaking breeding and propagation of fish species for enhancing quality fish seed as table Fish.
- Utilization of low-laying area through development and adoption of resource base technology for production.
- Socio-economic development of schedule caste and schedule Tribe people and other vulnerable section of the society.

LIST OF SCHEMES AND FINANCIAL ALLOCATION AND EXPENDITURE, DURING THE YEAR 2008-09 & 2009-10

(Rupees in Lakh)

Sl No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
1	HQ. Establishment	133.40	100.00	52.00	34.29
2	District. Administration	552.50	386.74	245.80	178.20
3	Grants in aid to Assam Fisheries Development Corporation	10.00	7.00	14.00	14.00
4	Fish seed farming	300.00	211.10	375.00	319.18
5	Reclamation of Derelict water bodies	254.00	243.20	750.00	745.00
6	Fish Farmers Development Agency	150.00	150.00	300.00	300.00

SI No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
7	Extension and Training (Centrally Sponsored Scheme)	10.00	-	10.00	10.00
8	Development. of water logged areas and derelict bodies (Centrally Sponsored Scheme)	-	-	10.00	-
9	Employment generation scheme through SHG	304.10	299.46	150.00	150.00
10	Survey of Fisheries & collection of Statistics	29.00	29.00	15.00	3.55
11	Fishery Research & Investigation	12.00	4.85	10.00	9.98
12	Marketing and Transport	5.00	-	10.00	3.00
13	Training in Fisheries	40.00	5.00	28.20	25.08
14	Fishery Extension Service	0.00	0.00	50.00	15.74
15	Women empowerment programme in fish farming	1.50	1.50	150.00	150.00
	SUB-TOTAL	1950.00	1586.35	2170.00	1958.00
Tribal Sub-plan					
1	Fish Seed Farming	15.00	6.00	30.00	30.00
2	Reclamation of Derelict water bodies	35.00	35.00	30.00	30.00
3	Fish Farmers Development Agency	35.00	-	20.00	20.00
	SUB-TOTAL	85.00	41.00	80.00	80.00
Schedule Caste Component Plan					
1	Reclamation of Derelict water bodies	130.00	124.59	178.00	178.00
2	National Welfare Fund for Fisherman				
	a) Housing	20.00	-	20.00	20.00
	b) Saving Cum-Relief	12.00	-	12.00	12.00
	c) Fishermen insurance	-	-	2.00	2.00
3	Fish Farmers Development Agency	88.00	88.00	88.00	88.00
4	Development of <i>Beel</i> Fisheries/Open water Fisheries (Grants in Aid)	200.00	22.16	190.00	190.00
	SUB-TOTAL	450.00	234.75	490.00	490.00
	TOTAL STATE PLAN	2485.00	1862.10	3184.00	2972.02
1	Assam Rural Infrastructure & Agriculture Service project (EAP)	1037.00	1037.00	444.00	444.00

SI No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
	SUB-TOTAL	1037.00	1037.00	444.00	444.00
	TOTAL (State Plan+ AACP)	3522.00	2899.10	3628.00	3416.00
CENTRAL SHARE OF CS/CSS SCHEME					
1	Aquaculture development under FFDA	320.00	-	624.00	75.02
2	National welfare Fund for Fishermen	30.00	-	60.00	14.60
3	Saving cum Relief Scheme	5.00	-	36.00	-
4	Development of waterlogged areas	15.00	-	30.00	-
5	Strengthening of Data base and Information Networking	20.00	3.30	20.00	5.00
6	Training and extension	20.00	-	30.00	15.80
7	Fishermen Insurance	0.00	-	6.00	6.00
	Central share Total: -	410.00	3.30	806.00	116.42
	Total State Plan+ AACP+ Central Share	3932.00	2902.40	3990.00	3088.44
	Rastriya Krishi Vikash Yojana	2000.00	2000.00	1000.00	1000.00
	Grand Total	5932.00	4902.40	4990.00	4088.44

PHYSICAL TARGET & ACHIEVEMENT (2008-09 & 2009-10):

SI No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
1	Fish production	000' tone	210	206	225.00	218.82
2	Fish seed production	Million Nos.	3000	3429	3500	3326
3	Construction of Dist. Meen Bhawan	Nos.	11	11	-	-
4	Construction of Sub- Divisional Meen Bhawan	Nos.	5	5	-	-
5	a) Fish seed Farm b) Mini Fish Seed Hatcheries	Nos.	10	10	- 48	- 48
6	Development of nursery and rearing tank	Hectare	-	-	105.00	105.00

Sl No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
7	Women Empowerment programme in fish farming	Nos. Women	2500	2500	3000	3000
8	Reclamation of derelict water bodies	Water area in hectare	289	289	655.00	655.00
9	Fish Farmers Development Agency					
	a) Water area Develop	Ha.	220	43	190.00	190.00
	c) Beneficiaries	Nos.	550	210	1000	700
10	Development of <i>Beel</i> / Open water	Water area in hectare	200	22	193.00	193.00
11	Employment Generation Through SHG	Water area in hectare	174	174	300.00	300.00
		SHG benefited Nos.	224	224	251	251
12	Development of pen culture	Unit No	-	-	12	12
13	Ornamental fish breeding and rearing	Unit No	-	-	12	12
14	Group accident insurance under NWFF	Unit No	-	-	26666	26666
15	AACP (Assam Agricultural Competitiveness Project)					
	a) Development of Farmers pond, community tank	Water area in hectare	900	896	197.39	197.39
		Beneficiaries Nos.	8788	8788	2505	2505
	Improve mini hatchery	Nos.	-	-	6	6
	b) Integrated fish farming	Water area in hectare	85	85	-	-
	c) Development of <i>Beel</i> / Fishery	Water area in hectare	76	76	-	-
	d) Capacity building	Farmers & Officers trained	10060	10063		

Sl No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
16	Rastrya Krishi Bikash Yojana					
	a) Development of existing pond	Water area (hectare)	295	295	49.90	49.90
		Beneficiaries	-	-	163	163
	b) Low-lying area converted to community tank	Water area (hectare)	96	96	40.00	40.00
		Beneficiaries	-	-	38	38
	c) Construction of new pond	Water area (hectare)	174	174	100.80	100.80
		Beneficiaries	-	-	258	258
	d) Creation of nursery and rearing pond	Water area (hectare)	221	221	160.00	160.00
		Beneficiaries			882	882
	e) Pig cum fish culture	Water area (hectare)	20	20	9.85	9.85
		Beneficiaries	-	-	41	41
17	NFDB (National Fishery Development Board)					
	i) Farmers ponds	Water area (hectare)	-	-	268.34	268.34
		Beneficiaries (Nos.)	-	-	395	395
	ii) Eco- Hatchery	Nos.	-	-	6	6
	iii) Construction of fish feed mill	Nos.	-	-	1	1
	iv) Farmers training	Nos.	-	-	150	150
	v) Awareness Camp	Nos.		-	50	50