

CHAPTER – VII

FISHERIES

7.1.0 With an estimated coverage of 3.74 lakh hectares of water-spread areas, Assam is the most water resourceful State in the North East part of the country. The resource wise break up and their present status of utilization in the State are shown in Table-7.1

TABLE-7.1
WATER RESOURCES IN ASSAM

Resources		Water Spread Area	Present Status
1	2	3	
1.	River Fisheries	205000	Unscientific / Traditional
2.	Beels / Oxbow Lake	100815	Extensive Farming 7000 Hect. Approx. rest unscientific/traditional management
3.	Forest Fisheries	5017	No Fishing, under conservation mainly
4.	Derelict Water Bodies/ Swamps	30124	427 hectare Developed, rest unutilised
5.	Reservoir Fisheries	1710	Utilised
6.	Ponds & Tanks	31232	Extensive / Semi-intensive farming 6000 hectare, rest traditional farming
Total		37,3901	

Source : Directorate of Fisheries, Assam

PRODUCTION OF FISH AND FISHSEED

7.1.1. As per information made available by the State Directorate of Fisheries, the present level of annual fish production in the State is 1.81 lakh Metric Tonne against estimated demand of 2.83 lakh Metric Tonne, calculated on the basis of minimum nutritional requirement of 11 kg per capita. The gap is partially met by importing fish from other States. The present per capita consumption is about 7.3 kg. The under utilization of resources as well as deficit in the availability of the fish and its high prices indicate the high potential for development of this sector in the State.

Despite the difficulties in the inputs availability, be it quality seed, feed, funds and technology transfer Fish farming as a profitable commercial activity is gradually gaining popularity in Assam.

In certain areas in the District of Kamrup, Nagaon, Morigaon, Cachar, Karimganj, Darrang and BARPETA farmers have taken up seed and fish farming on Commercial basis. As per data available from the State Fishery Department, the fish production has increased from 165521 tonnes in 2002-2003 to 180945 tonnes in 2003-04 thereby registering an increase of 2.65 percent.

The State has attained self-sufficiency in Carps seed (fry stage) production. But, there is shortage of genetically improved actual stocking materials, the fingerlings with appropriate proportion in proper season for stocking.

The State is having over 121 Eco-Hatcheries(119 under private sector) in addition to 9 mini bundhs and more than 400 hoba breeder, which contribute a major share in fish seed production. The fish seed and fish production in Assam are shown in table 7.2.

TABLE- 7.2				
PRODUCTION OF FISH-SEED AND FISH IN ASSAM				
Item	Unit	2001-02	2002-03	2003-04
1	2	3	4	5
1. Fish Seed (Fry)	Million Nos.	1801	1902	2228
2. Fish	Tonnes	161450	165521	180945

Source Directorate of Fisheries, Assam

The State has achieved fish production of about 1.81 lakh tonnes during 2003-04 from all categories of water resources of all varieties of fishes. The productivity of Carp Fish in culture ponds reached a level of 3000 kg per hectare per year. There is enough scope to cross the barrier of 3500 kg per hectare per year from the culture sector. The natural productivity in most of the beel fisheries has gone down due to discontinuation of auto stocking facilities arisen by silting up of link Channels (with the river) due to construction of flood control bundhs. Riverine fish production range is less than 30 kg per hectare per year. Indiscriminate killing of brood fish and juveniles by use of prohibited nets also reduced the river productivity in recent times.

TENTH FIVE YEAR PLAN (2002-2007):

7.1.2. Tenth Five year Plan of Fisheries Sector of Assam has been conceptualised on the basis of the needs and interventions necessary to overcome the problems and constraints so that the resources available in the State can be suitably utilised, through adoption of resource based technology with minimum fund available to produce fish to the extend possible to meet the existing demand of the State. The total allocation proposed for Tenth Five Year Plan period (2002-2007) has been worked out at Rs.6270 lakh.

OBJECTIVE OF 10TH FIVE-YEAR PLAN

- Utilisation of low-lying areas through development and adoption of resources base technology for fish production.
- Generation of self-employment through pisci-culture.
- Conservation of endangered local fish species and natural water bodies.
- Socio-Economic development of poor Scheduled Caste and Scheduled Tribe people and other poor section of the society.
- To achieve self-sufficiency in fish production to stop import of fish from other states.

	Item	Unit	Tenth Plan Target
	1	2	3
GENERAL			
1.	Fish Production	'000' Tonnes	200
2.	Fish Seed Production (Fry)	Million Nos.	1945
3.	Nursery Area	Hectare	500
4.	Fish Farmer Development Agency	No. of Family	6667
5.	Reclamation of Derelict Water Bodies	No. of Family	130
6.	Externally Aided Project	Water Area (Ha)	10300
TRIBAL SUB-PLAN			
1.	Reclamation of Derelict Water Bodies	No. of Family	330
2.	Fish Farmer Development Agency	No. of Family	3000
SCHEDULED CASTE COMPONENT PLAN			
1.	Development of Beel Fisheries	'000' Mandays	60
2.	National Welfare Fund	No. of House	390
3.	Reclamation of Derelict Water Bodies	No. of Family	60
4.	Fish farmer Development Agency	No. of Family	9000

Source Directorate of Fisheries, Assam.

THRUST AREA:

- a) Quality fish seed production.
- b) Infrastructure development / renovation in respect of fish seed production.
- c) Creation / reclamation of derelict water area for aquaculture development.

7.1.3 The Department of Fisheries, Assam has been implementing a number of development programmes to increase fish production in the State. The financial and physical activities during the year 2002-2003, 2003-2004 and target for 2004-2005 are summarised below.

- 1. Fish Seed Farming:-** The objective of the programme is to create infrastructure in the Departmental farms, so that quality Fish seed which is in high demand, may be produced in the Departmental farm for distribution to private farmers for augmentation of fish production in the State. Though the State has attained self-sufficiency in Carp Seed (Fry) production, but there is shortage of genetically improved actual stocking material, the Fingerling with appropriate proportion in proper season for stocking. It may be stated here that quality fish seed production and distribution to fish farmer is one of the important activities of the Department. But, the activity was at low-level during last few years. During the year 2003-04, the Department proposed to develop the Government Farm and an amount of Rs.7.81 lakh sanctioned by the Government for the purpose. Accordingly, the amount was utilised during the year 2003-04 to revitalise seed production activities of the Department. 8 (Eight) nos. of Departmental Farm developed during the year 2003-04. During the year 2004-05 Rs.156.75 lakh has been proposed.
- 2. Reclamation of Derelict water bodies:-** The State is having about 30,124 hectare of derelict and low-lying areas which are suitable for conversion into commercial fish culture ponds with comparatively less capital investment. Due to fund constraint so far only about 427 hectare could be developed. During the year 2003-04 a thrust have been given to develop these water bodies to bring under scientific fish culture practice. An amount of Rs.58.64 lakh was sanctioned and released by the Government during the year 2003-04 and water area of 55.62 hectare have been developed. The local poor people are engaged on daily basis to reclaim this water bodies. After development, management of these fisheries is vested to local communities with developmental technical guidance. During 2004-05 Rs. 15.70 lakh has been proposed to develop 20 Hectare of water areas.
- 3. Training in Fisheries:-** Training is an important method of men power development and transfer of technology to the fish farmers. The Department has constructed 6 nos. of Training Centres under ARIASP (World Bank Aided Project). In addition to this, there is a Regional Training Centre at Amranga established under North-East Council Scheme and two other Training Centres one at Guwahati and another at Joysagar. 785 nos. of fish farmers trained during the year 20003-04. A sum of Rs.7.50 lakh is proposed for the year 2004-05.
- 4. Aquaculture Development under Fish Farmer Development Agency:-** The aim of this centrally sponsored scheme is to develop Pond and Tank Fisheries through involvement of fish farmers by providing them with short duration training on modern fish culture and with financial assistance in the form of Grants-in-Aids and Bank loan. All the 23 Districts in the State have been covered under this programme. A sum of Rs.33.44 lakh was released by Government of Assam during year 2002-03 against the Central share of 1997-98. Accordingly fund was utilised and 275.74 hectare of water area developed against which 1570 nos. of fish farmers are benefited. Provision of fund proposed for the year 2004-05 is Rs.274.65 lakh.

5. Externally Aided Project (EAP) :-

Assam Rural Infrastructure and Agricultural Services Project:- The Department of Fisheries, Assam has secured a World Bank Assistance with Project Titled,-“Assam Rural Infrastructure and Agricultural Service Project (ARIASP)” with a fund provision of Rs.2837.40 lakh for a period of 8 (Eight) years from 1995-96. Different component under this project are-

- (i) **Fish Seed Production:-** Establishment of an Eco-Hatchery at Assam Agriculture University, Jorhat to produce genetically improved quality Fish Seed.
- (ii) **Mobile Fish Health Clinic:-** Procurement of 6(Six) Mobile Fish Health Clinic Van, one for each of six zones to extend fish health care to farmers.
- (iii) **Farmers Pond and Community Tank:-** Fish production in farmers and community tanks with financial assistance to achieve productivity upto 3000 kg. Per hectare per year in 800 nos. of farmers ponds covering 200 hectare, 150 nos. of community tanks covering 300 hectare, 125 nos. of Pig-cum-Fish Farmers covering 31.25 hectares and 500 nos. of Fish-cum-Horticulture covering 125 hectare have been targeted..
- (iv) **Development of Beel Fisheries and Open Water Fishery :** Under this scheme, it is targeted to develop 50 nos. of Beel covering 5000 hectare and 10 nos. of Open Water Fishery covering 600 hectare to increase productivity from the present level of around 100 kg. per hectare per year to 500 kg per hectare per year.
- (v) **Fisheries Research:** To solve various need based problems, it is proposed to strengthen the existing facilities for Research at Assam Agriculture University, Jorhat and College of Fisheries, Raha and to undertake some research programme.
- (vi) **Fisheries Extension Education and Training:** The Scheme aims to strengthen extension and training at the Department and University level and also to fish farmers involved in programmes.
- (vii) **Project Monitoring Cell:** It is proposed to establish one Project Monitoring Cell comprising of qualified personals for programming and effective implementation of the project.

6. National Welfare Fund for Fisherman:-

- a) **Housing:-** Objective of this centrally sponsored scheme is to construct low cost houses for poor traditional Scheduled Caste Fisherman in selected villages. A sum of Rs.6.60 lakh was released by Government during the year 2003-04 against which 33 Nos. of houses is under construction. A sum of Rs.0.40 lakh as State share and equal amount as Central Share is proposed for construction of 2 Nos. houses during the annual plan period of 2004-05.
- b) **Saving-cum-Relief:-** The objective of the scheme is to provide financial assistance to the Fisherman during the lean fishery period. A sum of Rs.3.80 lakh is proposed as 50 per cent state share with equal amount as central share during the year 2004-05 to benefit 1688 Nos. of Fishermen.

7. Fisheries Extension and Training:-

Inadequacy in technology transfer is one of the hindrances in low production of fish in the State. Regular transfer of technology, extension service and training of farmers and organizing awareness programmes are essential need to increase farm production.

Six training centres established under ARIASP and existing three training centres are proposed to be utilized for imparting short duration training to farmers and in-service ground level personnel of the Department under a State training plan formulated during the year 2003-04. A sum of Rs.4.00 lakh is proposed for the year 2004-05 as state share and Rs.8.00 lakh as Central Share.

8. Development of Waterlogged Areas and Derelict

Water bodies into Aquaculture Estate:-

Enormous fishery resources in the form of Beel Fisheries, Derelict Water Bodies, Swampy area etc. is available in Assam. The development programmes so far taken up for beel fisheries and derelict water bodies under various schemes covered only 7-8 per cent of the existing resources of 1.31 lakh Hectare. It is therefore, proposed to take up development of small beels and derelict water bodies in the range of 2-10 Hectare Water area of 1000 Hectare during the Tenth Plan. An amount of Rs.2.00 lakh is proposed for the year 2004-05 as 100 per cent Central Share to develop 4 Hectare of derelict water logged areas.

9. Strengthening of Database and Information

Networking for the Fisheries Sector:-

Government of India has formulated the Scheme during Tenth Plan period which will consist the components on Catch assessment, Survey for estimation of Inland Fish Production, Information Networking and Inland Fisheries Census. The present status of database with regard to fishery resources in the form of ponds/ tank, beels/oxbow lakes, derelict water bodies / low-lying areas, production fish etc. is outdated and far from satisfactory. Under the scheme these will be done in a uniform manner and will be entered into a database. Once the scheme is completed, the fishery resources of the State will be projected properly and the potential thereof will be established. It will help the State in proper planning and availing assistance from various Government and non-Government Agencies.

The Fishery Department has already submitted a proposal under the aforesaid scheme and is getting positive response from the Government of India.

A sum of Rs. 69.00 lakh is proposed for the year 2004-05.

The physical targets under different Schemes / items proposed for the Annual Plan 2004-05 and the achievement on different schemes under ARIASP programmes are shown in Table 7.4 and Table 7.5.

Schemes / Items		Unit	Target
1		2	3
1.	Fish Production	Thousand tonnes	190
2.	Fish seed Production	Million	2250
3.	Training of Farmers	No.	4100
4.	Water Area development under FFDA	Hectare	1645
5.	Development of derelict Water Body	Hectare	20
6.	National Welfare Fund for Fisherman		
	a) Houses	No.	2
	b) Saving -cum - Relief	Fisherman (No.)	1688

Source: Directorate of Fisheries, Assam.