

CHAPTER-6

ROLE OF DIFFERENT FINANCIAL AGENCIES AND GOVERNMENT IN DEVELOPING FISHCULTURE IN ASSAM

6.1. INTRODUCTION:

Finance is one of the main factors for the success of any economic activity. For the success and smooth working of any economic activity, availability of adequate and timely finance is a basic need. Depending upon the level and type of investment, economic activities need either short or medium or long term investment. However, terms and conditions as well as rate of interest at which credit is available are also equally important along with credit. The productive capacity of any enterprise is enhanced by the availability of credit. The small entrepreneurs are often suffered from the lack of credit. They can also operate efficiently under an environment of suitable market structure and other socio-economic conditions. Even they can grow after payment of high rate of interest also. Novel Lauriat Prof. Yunus has already proved it in Bangladesh. He has got worldwide appreciation and acknowledgment for his continues effort of micro finance in Bangladesh. The conventional belief that small entrepreneurs are unable to repay loan has also been proved wrong and the discriminating attitude of the banking authorities in many places towards small entrepreneurs in granting loan has also been disapproved. Credit should be extended to all the motivated hard working entrepreneurs whether small, medium or large.

There are mainly two categories of financial sources of fish culture, namely, institutional and non-institutional. Commercial banks including Regional Rural Banks (RRBs), Co-operatives and the Government are the main institutional sources of finance. Money-lenders, village Mahajans, traders and commission agents, landlords and relatives may be categorized as the non-institutional source of finance.

In this chapter, an attempt is made to give an overview of different financial sources-institutional and non-institutional operating in Assam. A brief description

of such institutional and non-institutional sources operating in Barpeta District of Assam has also been incorporated. Thereafter, an analysis of the role of different sources of credit among different sample households has been shown. Lastly, how the central and state Governments have played their role in providing financial assistance to the fishculturists in Assam as well as in the district of Barpeta is discussed in this chapter.

6.2. SOURCE OF FINANCE IN ASSAM:

So many financial institutional have been performing their business in the state of Assam and commercial banks may be said to play the major role in this respect. State Bank of India and other nationalized banks, Regional Rural Banks and other scheduled commercial banks are running their business in the state. However, one foreign bank with a single branch has also been operating. In table 6.1 total number of bank branches working in Assam, deposit mobilizations of these branches and their credit deployment in the state of Assam are shown.

Table-6.1: Number of Bank Branches, their Deposits and Credits in Assam as in March 2015

Banks	Branches (Number)	Deposits (Rs in Crs)	Deposit per Branch (in Crs)	Credit (Rs in Crs)	Credit per Branch (in Crs)	Credit Deposit Ratio (%)
SBI and Associates	334	38134.73	114.17	12848.2 2	38.47	33.69
Nationalised Banks	1062	44218.19	41.64	15203.2 4	14.32	34.38
Foreign Banks	02	186.74	93.37	123.76	61.88	66.27
RRBs	465	7878.45	16.94	4158.85	8.94	52.79
Other Scheduled Commercial Banks	184	6960.35	37.83	3577	19.44	51.39
Total	2047	97378.46	47.57	35911.2 7	17.54	36.88

Source: Directorate of Economics and Statistics, Government of Assam, *Statistical Handbook*, 2015.

Total number of scheduled commercial bank branches operating in Assam was 2047 as on March 2015. On an average, total deposit of a bank branch was Rs.47.57 crores in March 2015. Out of these deposits, credit granted per bank branch on an average was Rs. 17.54 crores in March 2015. The credit deposit ratio

was about 36.88 as on March 2015, which was comparatively much lower than that in the developed regions as on March 2015. Not only that, the credit deposit ratio for the Regional Rural Banks (RRBs) was only about 52.79 as on March 2015; which indicates that the loans advanced by RRBs to the rural sector is not significant. Apart from these banks, some Non-Banking Financial Institutions (NBFIs) like Life Insurance Corporation of India Limited (LIC), General Insurance Corporations of India Limited (GICI), Small Industrial Development Bank of India (SIDBI), Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India (ICICI), National Bank for Agriculture and Rural Development (NABARD), etc. are also operating in Assam. Besides these institutional sources, some non-institutional sources are also engaged in the credit market of the state.

6.3 INSTITUTIONAL AND NON-INSTITUTIONAL SOURCES OF FINANCE IN BARPETA DISTRICT:

The number of major banks operating has 44 rural branches and 45 urban with an aggregate deposit of Rs. 1233.4 crores as on 31st March, 2016 (Table 6.2). The number of commercial banks operating in the district was 20. They have 66 branches in June, 2016 out of which 29 branches are in rural and only 37 branches are in semi-urban areas. United Commercial Bank, Allahabad Bank, Union Bank of India, Syndicate Bank, Central Bank of India, Punjab National Bank etc. are the major scheduled commercial banks in operation. On the other hand, Axis Bank, IDBI, HDFC etc. are the private commercial banks operating in the district. Besides commercial banks, whether scheduled or private, one regional rural bank named as Assam Gramin Vikash Bank has been operating in the district with its 20 branches (15 in rural and 05 in urban areas) as on June, 2016. Together with these, banking business has been running in the district by a Co-operative Bank called the Assam Co-operative Bank Apex Bank Ltd. with its 3 branches within the district. Its branches are at Barpeta, Barpeta Road and Pathsala town. On an average, number of villages per branch in the district was around 19 in 2016.

It comes out from it that each of the branches has to cover a vast area of the district which precludes the chance of extending credit to the remote villages.

Rs. 1952 crores was the aggregate deposit mobilized by 66 commercial bank branches. Out of this Rs. 1952 crores total mobilized deposit, Rs. 966 crores was advanced in the form of credit as on March, 2016. Rs. 29.5 crores and Rs. 1.46 crores were respectively the deposit and credit of per commercial bank branch with a credit deposit ratio 49.5. Rs. 377 crores was the aggregate deposit mobilized by 20 branches of Regional Rural Banks in the district. Out of this amount, Rs. 255 crores was advanced in the form of credit as on March, 2016. The credit-deposit ratio was 67.55 on an average; the deposit and credit per Regional Rural Bank branch were Rs. 18.8 crores and Rs. 12.7 crores respectively. Assam co-operative Apex Bank had an aggregate deposit outstanding and loans and advance worth Rs. 114.8 crores and 11.5 crores respectively with a credit deposit ratio of 10.08. The poor credit-deposit ratio of all commercial banks including RRBs and Apex Bank reflects the insufficient role of these banks in the upliftment of general economic activities in general and rural development of the district in particular.

Table-6.2 Profile of Financial Institutions on 31st March, 2016

Agency	No. of Bank	No of Branches		Deposit (Rs.'000)	Deposit per Branch (Rs.'000)	Loans and Advances (Rs.'000)	Credit per Branch (Rs.'000)	CD Ratio
		Rural	Semi Urban					
Commercial Bank	20	29	37	19523317	295807.84	9665329	146444.38	49.5
RRBs	1	15	5	3770995	188549.75	2553617	127680.85	67.55
State Cooperative Bank	1	00	03	1148436	382812	115659	38553	10.08
Total	22	44	45	24449748	274716.27	12334605	138591.06	50.45

Source: Annual Credit Plan 2016-17 Barpeta District

Not only the institutional sources, but there are also private sources of credit operating their credit business in the district of Barpeta. Village Mahajans, traders, commission agents and relatives may be mentioned as major non-institutional sources of finance. These non-institutional sources of finance have been playing a pivotal role in financing rural, urban and semi-urban people of the district. They finance in unproductive activities also. However, it should be mentioned here that it

is not an easy task to have appropriate figure of these non-institutional sources and their credit deployment over the years. It is observed that private sources charge a quite higher rate of interest than institutional credit sources. The interest rate charged by them may be up to fifteen per cent per month.

6.4 FISHCULTURE AND FINANCIAL AGENCIES IN BARPETA DISTRICT:

Fishculture is a costly venture. Being costly, it needs short terms, medium term and long term credit. Short term loan is required to purchase seeds, feeds, rearing appliances and to meet day to day expenses of rearing, such as, payment of wages to hired labour (if any), rent etc. The need of long term credit comes from the purchase of land for fishery, construction of eco-hatchery etc. which makes the occupation commercially viable and profitable and expansion of their activities.

It is already mentioned that a good number of financial institutional sources have been operating their business activities in the district of Barpeta. However, the number of financial institutions to supply credit to fish culturist is not sufficient. The field survey reveals that the entrepreneurs of both seed fish and table fish were deprived of institutional finance because of lengthy procedure of sanctioning loans and rigid terms and conditions laid down by the institutions. Preparation and submission of scheme and project report also act as a barrier to them as most of them are either illiterate or semi-literate. Besides, the financial institutional need non-encumbrance and valuation certificates from land record officers for collateral security, loan guarantors, valuation certificate of land, an amount of advance etc. which are very difficult conditions for the fish culturist to satisfy as they are owners of very small land. Field survey also reveals that some of the entrepreneurs or needy fish rearers were not in a position to grab the opportunity of institutional finance due to information gap or ignorance on their part. However, it is easy to have non-institutional finance from sources like village Mahajans, money lenders/ traders etc. as they are always ready to advance credit to needy fish-rearers. As a result, they can take away the major portion of income generated in fish culture in the form of

interest. The distribution of sample families according to the source of credit in the study area has been shown in table 6.3.

Table-6.3
Sources of Finance of Seed Fishculture in the Sample Household during 2016

Sources of Finance	Bhabanipur CD Block	Mandia CD Block	Pakabetbari CD Block	Total
Village Mahajan	39 (78.00)	31 (77.5)	23 (77.66)	93 (77.5)
Relative	2 (4.00)	1 (2.5)	1 (3.33)	4 (3.33)
Own Finance	44 (88.00)	34 (85.00)	26 (86.66)	104 (86.66)
Bank	2 (4.00)	1 (2.5)	1 (3.33)	4 (3.33)
Total	50	40	30	120

Source: Compiled from Field Survey.

Note: Figures in the parentheses represent percentage to total of the corresponding source of credit.

It is observed from table 6.3 that out of total 120 fishculturist families, the major source of finance for seed fish rearing is the own finance. Out of the total 120 seed fish rearers, 104 (i.e., 86.66%) families depend on their own finance. Seed fish rearers of Bhabanipur block are highly dependent on own (self) finance with 88 per cent followed by Pakabetbari block 88.66 per cent and Mandia block with 85 per cent. Second major role is played by village Mahajans as the source of finance to seed fish culture in the district with 77.5 per cent. It is also found that the role of village Mahajans as a source of finance to seed fish culture is almost the same in all the CD Blocks of the district. Rate of interest charged by them ranges from 24 per cent to 120 per cent per annum. The role of relatives as well as banks as a source of finance of seed fish culture is negligible. They have a contribution of 3.33 per cent only. It is nothing but a reflection that institutional sources are neglecting the seed fishculturists of the district. Only the rich rearers having enough land and other property have got loan from banks.

The importance of different sources of finance 2016 has been shown in table 6.4.

Table-6.4
Sources of Finance of Table Fishculture in the Sample Household during 2016

Sources of Finance	Bhabanipur CD Block	Mandia CD Block	Pakabetbari CD Block	Total
Village Mahajan	12 (30.00)	10 (33.33)	8 (40.00)	30 (33.33)
Relative	2 (5.00)	1 (3.33)	2 (10.00)	5 (5.55)
Own Finance	39 (97.5)	29 (96.66)	20 (100.00)	88 (97.77)
Bank	2 (5.00)	1 (3.33)	1 (5.00)	4 (4.44)
Total	40	30	20	90

Source: Compiled from Field Survey.

Note: Figures in the parentheses represent percentage to total of the corresponding source of credit.

It is seen from table 6.4. that like seed fish culture, own finance is the major source of finance in table fish culture also. 88 rearers (97.77%) out of 90 table fish rearers depend on their own finance. In respect of own finance, Pakabetbari CD Block tops the list with cent per cent own finance followed by the rearers of Bhabanipur with 97.5 per cent. Next to own finance, village Mahajans have contributed one third of the total finance. In Pakabetbari CD Block, village Mahajans have contributed 40 per cent of total credit while their contribution are 33.33 per cent and 30 per cent in Mandia and Bhabanipur Block respectively. Relatives as a source of table fish culture take the third place with only 5.55 per cent and the bank has been found as the least important source of credit of table fish culture with only 4.44 per cent.

6.5 DEPARTMENT OF FISHERY, GOVERNMENT OF ASSAM:

A unit under Department of Cottage Industries has been created in 1948 to look after the aspects of fishery. However, in 1950, the unit was separated from the department of Cottage Industries to attach to Agriculture Department. It was continued till 1963 and was detached from Agriculture Department to affix to the Department of Veterinary and Animal Husbandry. In 1991, a separate department of fishery was setup though the post of Director of Fishery was created in 1968,

Mission of the Dept. to facilitate long term overall development through increased production and productivity of fish and Other aquaculture commodities, integrated approach for infrastructure development, extension services and market linkages creating opportunities for employment generation, adoption and promotion of innovative and frontline technologies; conversion and judicious exploration of fish and fishery resources, preservation of generic resource base and development activities with eco-friendly approaches is the mission of the department. (Department of Fisheries, 2013-14).

Acts and Rules of the Department:

The department has three Acts and Rules, viz.

- (a) The Assam Fishery Rules, 1953 (Amended in 2005),
- (b) The Assam Fish seed Act, 2005 (Gazette notification in 2010), and
- (c) The Assam Fish seed Rules, 2010.

The Assam Fish Seed Act, 2005 is the first such kind of Act in India. This act came into force on 18th April, 2005 to regulate the quality fish seed production, marketing and stocking in water bodies in Assam. Under this act, registration licences have been made mandatory for the seed producers/ growers/ vendors/ exporters and importers. The Department has the supervision of all these activities. (Department of Fisheries, 2013-14)

To develop fishery in the state of Assam by adoption of appropriate technology is the main objective of the department. Through Directive of Fisheries and Assam Fishery Development Corporation Ltd. Various schemes and policies of the department have been implemented.

6.5.1. DIRECTORATE OF FISHERIES:

6.5.2. ASSAM FISHERY DEVELOPMENT CORPORATION LTD.:

In the year 1977, Assam Fishery Development Corporation was established. It was started with an authorized capital of 50 lakhs and paid up capital of Rs. 48.95 lakh. The corporation is located at Borbari, Guwahati. There is no other corporation under the Department of Fishery except it. The development of fishery and

improvement of socio-economic condition of fisherman is the main objective of the corporation. There are 185 fisheries with an area of 10,000 hactres. The corporation helps the fishermen in increasing productivity in the beels to a reasonable extent with maximum of 1600 kg. per hectare per year and thus helps in raising standard of living of the people depending on it. The corporation is able to earn good amount of profit over the years.

6.5.3. PROGRAMMES IMPLEMENTED BY THE GOVERNMENT OF ASSAM FOR THE UPLIFTMENT OF FISH CULTURE:

- (a) State Plan Schemes
- (b) Central Sector Schemes
- (c) Centrally Sponsored Schemes
- (d) National Welfare Fund for Fishermen
- (e) Externally Aided Project (EAP)
- (f) Assam Agriculture Competitiveness Project (AACCP)

6.5.3.1. STATE PLAN SCHEMES:

Various schemes & programmes for the development of fishculture in Assam are discussed below.

6.5.3.1.1. FISH AND FISH SEED FARMING:

The department of fishery, Govt. of Assam has implemented Fish and Fish seed farming to increase fish seed production along with other related activities and development of infrastructure. Various programmes have been taken up under this scheme for seed fish production. The programmes are like construction of hatchery, production and raising of seed fish in departmental as well as in private farms, assistance to progressive farmers for production of fingerlings etc. The Government has also been adopting vertical and horizontal expansion path to reduce supply deficit of fish in the state. Enhancement of existing productivity of culture areas is the vertical expansion while creation of new areas for fish culture is the horizontal expansion. Programmes like construction of new ponds through groups / SHGs/

Community/ Individuals, scientific fish culture, air breathing fish culture like Magur and Kuchia etc. have been implemented.

Followings are the programmes adopted under Fish and Fish Seed Farming during the year 2013-14.

6.5.3.1.1.1. CONSTRUCTION OF NEW POND (*MUKHYA MANTRI'S* AMAR PUKHURI ASONI) – GENERAL AND SCSP:

The main objective of the scheme is the expansion of fish culture area, enhancement of fish production and upliftment of socio-economic condition of the rural people through employment generation. Concerned community is vested with management of newly constructed ponds with minimum 0.5 hectare to maximum 2 hectares. Unit cost is Rs. 3.75 lakh per hectare for pond constructed while Rs. 0.95 lakh is treated as first year input cost. The beneficiaries of this scheme is community / SHG/ Group with a minimum of 8 members and must have registration under respective District Fishery Development Officer (DFDO). As per need and convenience, input items like food are supplied in one or two installments, except for seed fish. DFDO or any other officer designated by the DFDO verify the quality and quantity of the input items. The beneficiaries have to open an account in any nationalized / scheduled bank branch available in the locality / choice and the same have to be operated jointly by the chairman and Member Secretary (DFDO). Release of funds are made through account payee cheques by DFDO in two installments. Timely submission of the utilization certificate is the must and the beneficiaries are responsible for maintaining all records like visitor's registers, stock registers, implementation registers and account keepings and apprising the same to concerned DFDO / Departmental Officer as and when required. However, more than 75 percent beneficiary of the Community /SHG/Group must sign a Memorandum of Understanding (MOU) with the concerned DFDO before the release of fund. Besides, the concerned DFDO will have to record the Pre and Post development photographs. Moreover, video recordings should be done for the implementation and monitoring of the schemes including distribution of inputs to the beneficiary. A signboard must be fixed depicting the details of the scheme. The

size of the signboard should be not less than 2x3 square ft. and it should be done from the miscellaneous expenditure.

6.5.3.1.1.2. CONSTRUCTION OF NEW PONDS THROUGH WOMEN SHG (MUKHYA MANTRIR MAHILA SAMRIDHI ASONI- LAKHIMI)-GENERAL:

Women have an important role in the upliftment of rural economy through fishculture of Assam as they constitute half of the society. Taking it into consideration, fishery department has taken up programmes to provide support not only for increasing fish production but also to empower themselves through “Lakhimi” targeting SHGs. The unit cost has been fixed as Rs. 3.66 lakh per hectare for pond construction where as Rs. 0.95 lakh as first year input cost.

6.5.3.1.1.3. CULTURE OF EEL (KUCHIA) AND AIR-BREATHING FISHES: GENERAL:

This programmes is associated with individuals having interest in experimenting and taking risk of adopting non-conventional method of fishculture and is registered under concerned DFDO. The size of the tank for *Kuchia* is 17.00 m x 12.50 m x 1.25 cubic m whereas for air-breathing fishes, 0.1 hectare per unit for existing tank. The unit cost fixed for *Kuchia* is Rs.0.70 lakh per unit for tank construction and first year culture cost is Rs.0.30 lakh. The unit cost for *Magur* is fixed as Rs.0.50 lakh per unit of 0.10 hectare. The implementation of the scheme needs some decision process which should be done as per norms and the concerned DFDO or the officer designated by the DFDO must be involved in it. The beneficiary must agree in the form of bi-party agreement to experiment/implement every stage of the scheme in accordance with the approved Government norms and agreed production programme. In this regards, technical support from DFDO concerned of the district is mandatory. It is the responsibility of the beneficiary to keep the records of all accounts and appraising the same to DFDO/ Department officer concerned.

6.5.3.1.2. RECLAMATION DEVELOPMENT OF DISTRICT WATER BODIES (MUKHYA MANTRIR SWAJYOJAN ASONI):

Assam is availably endowed with about 1,16,000 hectare of district water bodies most of which are unutilized or underutilized. Derelict water bodies have the high potentiality for fish production and can be reclaimed with comparatively less capital expenditure. Once these areas are developed, it is possible to have yield over 3 MT per hectare per year through scientific fishculture and can provide employment opportunity to local youths. This is the main strategy of the scheme and it has been implemented through involvement of concerned communities forming SHGs. The unit cost is Rs.2.00 lakh per hectare for reclamation while first year input cost is fixed as Rs.0.90 lakh. The guidelines to be followed for this programme are the same as that of “Mukhya Mantrir Amar Pukhuri Asoni.”

A good number of institutions and organization in the state like temples, Maszids, School, Colleges, Universities, Satras etc. possess ponds or water bodies potential for fish production. Restriction imposed on catching of fish during April to July in Assam and it creates a shortage of local fish in the market during this period. The culture programme under this scheme has been adopted in such a way that harvesting is to be done during this lean period to make up the supply deficit of this period. For renovation of pond, unit cost is fixed at Rs. 0.60 lakh per hectare while first year input cost is fixed at Rs. 0.90 lakh. The beneficiaries must have registration under concerned DFDO. Being approved, they must agree in the form of bi-party agreement for the implementation of every stage of the scheme as per approved Government norms. It is compulsory to provide technical support by DFDO. The culture programme as well as marketing strategy is also designed by him/her. The involvement of the DFDO in all decision making process is the must for proper implementation of the programme.

6.5.3.1.4. DISTRICT ADMINISTRATION:

Departmental infrastructures like office of the Sub-divisional Fishery Development Officers along with training halls lie under this scheme. In the districts of Nagaon, Sonitpur, Darrang, Lakhimpur, Cachar, Goalpara, Dibrugarh, Barpeta, Morigaon, Kamrup, Jorhat and Dhemaji, District Meen Bhabans and in

sub-divisions of Biswanath Chariali, Sodra, North Salmara, South Salmara and Rangia Sub-divisional Meen Bhabans have been constructed.

6.5.3.1.5. ONE TIME ASSISTANCE TO FISHERMEN DURING FISHING LEAN SEASON (*MUKHYA MANTRIR MATSYA MITRA ASONI*) UNDER THE FISHERY EXTENSION SERVICE:

Monsoon is a difficult season for fisherman to go for fishing. Again, ban has been imposed on fishing from 1st April to 15th July as per fishery rules, 1953 and Assam Fishery Rules Amendment, 2005 has brought distressed period to the poor fisherman during lean season. With a view to give partial relief to the fisherman during lean season, one time financial assistance @Rs. 10,000/- has provided to each fisherman family by the Government of Assam. However, the conditions to be fulfilled are that the fisherman must be registered under concerned DFDO, belong to BPL family and below 60 years of age. At the same time, fishing profession should be the only source of livelihood to the fisherman.

6.5.3.1.6. CONSTRUCTION OF HYGIENIC FISH MARKETS:

Marketing of fish is very important from two angles—it encourages more people towards fishculture as their occupation and secondly, it ascertains the safety of the consumer. As fish is a perishable product, ice plays an important role to keep it intact. Assam has been an importer of fish from west Bengal, Tamil Nadu, Andhra Pradesh etc., being the shortage of fish supply in Assam. As a result, role of ice increases many fold to keep the imported fish afresh. Trading of fish in Assam is mainly organized in private sector with the involvement of importers, whole-sellers, retailers, vendors etc. at different stages. Existing infrastructure of market is very poor whether for wholesale or retail markets and for rural or urban areas which causes serious threat to health of fish consumers. So to maintain hygiene of fish market, the fishery department of the Govt. of Assam has taken up construction of Hygienic Fish Market at Nagaon, Nalbari, Barpeta, Jorhat, Lakhimpur, Karimganj, Morigaon, Goalpara, Dhubri and Hailakandi district of Assam.

6.5.3.1.7. RURAL INFRASTRUCTURE DEVELOPMENT FUND:

Fishery department of Assam has been implementing different infrastructure development programme under NABARD instituted Rural Infrastructure Development Fund (RIDF). These programmes have contributed towards agriculture growth, rural connectivity and development of other social sector.

Through Assam Fisheries Development Corporation Ltd. 17 *beel* fisheries have already been developed under this scheme. Further, programmes like upgradation of J.B. Garh Departmental Fish Farm at Raha and development of low laying area of Chilabandha beel and Jaysagar doloni in Nagaon district are taken up during the period of 2014-15.

6.5.3.2. CENTRAL SECTOR SCHEME:

This is a central sector scheme the main objective of which is to improve database of the inland fishery resources and catch of fish by adoption of standardized methodology of data collection through sample survey; to improve technology system to make data collection and their analysis efficient and effective and to conduct census of inland fisheries.

This scheme has been introduced in Assam during 6th Five year plan. It caters the need for regular collection and compilation of statistics on fishery activities for taking up planning and project preparation subsequently. It has been widely recognized that policy framework as well as development programmes depend on the basic information of the resource.

6.5.3.3. CENTRALLY SPONSORED SCHEMES:

The centrally sponsored schemes which are in good numbers are discussed below:

6.5.3.1. FRESH WATER AQUACULTURE UNDER FISH FARMERS DEVELOPMENT AGENCIES:

Provision of new pond construction and development of existing pond for fishculture has been incorporated under this scheme.

Development of individual ponds through involvement of fish farmers by availing them with financial assistance in the form of subsidies and bank loan is the main aim of the scheme. Funding pattern of this scheme has been fixed at 75:25 as central and state share respectively.

6.5.3.3.2. DEVELOPMENT OF WATER LOGGED AREAS INTO AQUACULTURE ESTATE:

Enhancement of fish production and benefit of the local community through the utilization of water logged areas and derelict water bodies is the prime objective of the scheme. Central and state share of the scheme is 75:25.

6.5.3.4. NATIONAL WELFARE FUND FOR FISHERMEN:

With the main aim of improving the standard of living of the fishermen and their families through provision of basic amenities like housing, drinking water, community hall, etc. this scheme has been initiated. The following aspects have been implemented in Assam with a sharing pattern of 75:25 between centre and the state of Assam.

6.5.3.4.1. HOUSING:

Low cost houses with plinth area of 35 sq.m. is made available to poor scheduled caste fishermen in selected villages along with tube well and community hall.

6.5.3.4.2. SAVING CUM RELIEF:

The fishermen are provided with financial assistance during the restricted fishing period. Rs.600/- (Six hundred only) is collected from fishermen for a period of nine months. The contribution made by Govt. of India is Rs.900/- (nine hundred

only) and Govt. of Assam is Rs.300/- (three hundred) which is matched to the contribution made by the fishermen. The accumulated amount is Rs.1800/- (one thousand eight hundred only) which is distributed among the fishermen in three equal installments of Rs.600/- (six hundred only) per month.

6.5.3.4.3. FISHERMEN INSURANCE:

Fishermen with license, identification or registration with state Government are insured for Rs.1,00,000/- (one lakh only) against death or permanent disability and Rs. 50,000/- (fifty thousand only) against partial disability. The coverage of this insurance is 12 months only and a policy would be taken out by FISHCOPFED in respect of all the states.

6.5.3.5. EXTERNALLY AIDED PROJECT (EAP):

Assam Agriculture Competitiveness Project – Additional Financing (AACP – AF) is formulated with the same objectives and project design of AACP with scope to make improvements in management and implementation during the period of three years of the project. This programme expands the on-going activities and scales up the project's impact and development. Twelve (12) districts of Assam (Barpeta, Bongaigaon, Chachar, Darrang, Goalpara, Kamrup, Karimganj, Lakhimpur, Morigaon, Nagaon, Nalbari and Sonitpur) have been covered by AACP-AF. These districts have been covered on the basis of comparatively more water area availability under pond and tanks fisheries and having more annual fish production than other districts. The vital ingredients of the projects are Development of Farmers' Pond; Development of Community Tank; Integrated Fish Farming -

- a) Pig Cum Fish Farming and
- b) Paddy-Fish Culture; and Development of Fisheries.

6.5.3.5.1. RASTRIYA KRISHI VIKASH YOJANA (RKVY):

It is an additional central assistance scheme to incentivise states to draw up plans for their agricultural sector more comprehensively taking agro-climatic conditions, natural resource issues and technology into account with the

integration of livestock, poultry and fisheries etc. This scheme is under the administration of the Union Minister of Agriculture over and above its existing centrally sponsored schemes with a view to supplement the State-Specific strategies based on local needs. For the full utilization of available resources and to cover all allied sector of agriculture, the state has prepared Comprehensive District Agricultural Plan (C-DAP) as per the direction of National Development Council (NDC). Rastriya Krishi Vikash Yojna (RKVY) is under the scheme of state plan and the eligibility of assistance under this scheme depends upon the amount provided in the state budgets for agriculture and allied sectors, over and above the baseline percentage expenditure incurred on agriculture and allied sector. Cent percent grant of fund has been provided by Central Government for this scheme. State Agricultural Plan (SAP) has been prepared and submitted on the basis of the Comprehensive Districts Agricultural Plans (C-DAP) prepared by all the districts. During formulation of strategies for development of fishery sector under SAP, it is assumed that creation of new ponds and tanks for fishculture under individual and community management will increase additional fish production and employment generation; increasing fish production from the existing ponds and tanks, *beels*, and derelict waters through improved management practices, development of potential paddy fields through paddy cum fish culture etc.

The fishery department of Assam has introduced the flagship programme of Govt. of India during the period of 2008-09. Under Rastriya Krishi Vikash Yojana (RKVY), the list of beneficiaries are recommended by *Zila Parisad*. There are two main components of the programme viz., fish production and fish seed production which the department has to implement. Development of low laying areas to community tank, construction of new ponds and fresh water prawn farming are the main activities under fish production while main activities under fish seed production are establishment of improved Mini Seed Hatcheries, construction of rearing ponds and development of Government farm as Brood Bank Management Farm and Ornamental Fish Breeding Centre. Recently, however, the activities like institutional development and capacity building are also being incorporated under RKVY.

Since 2008-09, more than 12,500 beneficiaries and non-beneficiaries farmers have been imparted training on technical aspects. Besides it, about 200 progressive farmers have been sent out of the state on exposure visit for capacity building. The states to which farmers have been sent for capacity building are mainly Andhra Pradesh, Odisha and West Bengal. To aware the mass people regarding fish culture, about 230 block level awareness camp have been organized so far under this programme. More than 100 officers of the department have been trained up inside and outside the state in Indian Council of Agricultural Research Institute (ICARI) for capacity building.

6.5.3.5.1.1. NATIONAL MISSION PROTEIN SUPPLEMENTS (NMPS):

As a sub-scheme of RKVY, Govt. of India introduced this NMPS scheme with the aim of assisting the states through the production of protein- rich products including fishery. NMPS for fisheries was introduced in Assam during 2012-13 with its two major components.

6.5.3.5.1.1.1. RESERVOIR FISHERIES DEVELOPMENT:

Originally, the provision under this components were cage culture in selected reservoirs, fish seed rearings in pens and creation of other post harvested infrastructure facilities such as fish landing jetties, ice plants, boats, refrigerated trucks and marketing facilities. Cent percent grant has been provided to state for the implementation of these activities.

In the state of Assam, however, *beel* fisheries development programme has been undertaken owing to limited reservoirs with 48 cages of size 6 x 4 x 2.5 cubic meter each installed in two batteries. In Molahanitpur *beel* of Golaghat district 48 modular cages were installed in 2012-13 where IMC and pungus fishes are being cultured with high stocking and floating pelleted fish feed. In Morigaon district, 24 modular cages were installed in Thekera *beel* during 2014-15. Fish landing centre, retail market and four- wheelers marketing van are the other major infrastructures approved under this programme.

6.5.3.5.1.1.2. AQUACULTURE DEVELOPMENT THROUGH INTEGRATED APPROACH:

For a better development of fishery sector, there is the prime need for the integration of various production oriented activities, such as, production of quality seed fish, feed, availability of technology, post harvest and processing and marketing facilities in close vicinity where commercial Fishculture is undertaken. Such an integration of various essential activities encourages people to be interested in fishery development in addition to make to easy for accessing various inputs for fishculture, post harvest processing, value addition and marketing. Government of Assam implements this programme through its various Fishermen Co-operative Societies. Of the total cost of pond construction and input cost, a subsidy of 40 percent is considered for promoting this activity.

Originally, provisions in this programme were of construction of fish seed hatchery, construction of fish nursery at the maximum of 40 hectare for culture of fish, construction of feed mill plant, establishment of infrastructure like cold storage, ice plant, insulated truck, marketing / retail outlook etc. Two co-operative societies of Darrang District viz, Ranghar Krishipam Samabai Samitee Ltd. and Sontoli Krishipam Samabai Samitee Ltd. have gone for implementing the programme in the district during 2012-13. During 2014-15, it has been implemented at Jagial, Nagaon district.

6.5.3.5.1.2. SCHEME UNDER NATIONAL FISHERIES DEVELOPMENT BOARD (NFDB):

In the year 2006, National Fisheries Development Board was set with its head quarter at Hyderabad. The prime aim of NFDB is to work towards a “Blue Revolution” through untapped potential of fisheries sector in inland and marine fish capture, processing and marketing of fish and overall growth of fisheries sector with the application of modern tools of research for optimizing production and productivity of fisheries.

Increasing fish production of the country, doubling export of fish and creating employment opportunity are the main focus of the activities of the board. It propagates the platform for a public – private partnership in fishery sector. Followings are the prime achievements of different schemes under NFDB are Assam since 2008-09:

- (i) Construction of 717 new ponds covering 528.95 hectare water area for fishculture.
- (ii) Development of 116 existing individual ponds covering 24.67 hectare water area for fishculture.
- (iii) Establishment of 6 Eco-hatcheries in private sector for the production of seeds of fish.
- (iv) Organization of 50 Block Level Awareness Camps in 26 districts of Assam.
- (v) With a view to upgrade knowledge and skill of the farmers, fishery training has been organized for 475 farmers in 14 districts of Assam.
- (vi) Nine medium scale ornamental fish breeding and rearing units have been established in 4 district of Assam.
- (vii) With a view to increase fish production and to uplift socio-economic condition of fishermen, 15.80 lakh fish fingerlings have been released in 16 beels of Assam covering 1047.94 hectares in four districts.
- (viii) A fish feed mill has been established in private sector at Golaghat district of Assam with a view to produce artificial fish feed.
- (ix) Two (2) state level Matsya Mahotsavs have been organized in Guwahati, Assam.
- (x) Exposure visit of 3 departmental officers has been conducted to the fish markets in Tamil Nadu & Karnataka.
- (xi) Three hygienic wholesale cum retail fish markets are constructed in Nagaon, Nalbari and Cachar districts of Assam.

6.5.3.5.1.3. BEEL DEVELOPMENT FOR SUSTAINABLE LIVELIHOOD UNDER THE SCHEMES OF NORTH EASTERN COUNCIL:

Under this scheme the development of three *beels*, namely, Hahila *beels* of Nagaon, Barua *beels* of Darrang and Dighali *beels* of Dibrugarh districts are under progress. For development of more *beel* fisheries in the state, the fishery department of Assam has further submitted proposal to NEC. Also, for development of *beel* fisheries under “Beel Mission’ project, the development is exploring the funding from Govt. of India.

6.5.3.5.1.4. NEW INNOVATIVE INITIATIVE:

6.5.3.5.1.4.1. FRESH WATER PRAWN FARMING AND SEED PRODUCTION (UNDER R.K.V.Y.):

With the chief objective of popularizing and encouraging prawn farming, scheme on Fresh Water Prawn Culture has been successfully implemented. Parallely, to ascertain the availability of prawn, the department has commissioned 3 departmental Freshwater Prawn hatcheries located at Meen Bhawan Complex in Guwahati, Islamabad Fish Farm at Bhaga in Chachar and Baolia Fish Seed Farm in Dhubri. The seed production from the prawn hatchery located at Meen Bhaban, Guwahati has already been started and able to produce one lakh PL 20 in the two breeding seasons of 2012 & 2013.

6.5.3.5.1.4.2. STATE FISH LABORATORY (UNDER RKVY):

For development of fishery sector, fish laboratory is inevitable for testing soil and water quality parameters. The fish laboratory of the state has been established in the Directorate Complex, Guwahati, under RKVY. The laboratory also extends support to farmers for investigation on fish and hygiene.

6.5.3.5.1.4.3. INTRODUCTION OF JAYANTI ROHU:

A genetically improved variety of Rohu is “Jayanti Rohu” which is developed by Central Institute of Freshwater Aquaculture at Bhubaneswar. This

“Jayanti Rohu” has the claim to have 40 per cent higher growth rate over the normal rohu. Amalgamated Plantation Private Limited, a sister organization of Tata Tea and other few selected progressive private fish farmers have been appointed as certified multiplier unit for “Jayanti Rohu” by CIFA, where seed of this species is available for fish farmers.

6.5.3.5.1.4.4. CULTURE OF KUCHIA ON PILOT BASIS (UNDER RKVY AND STATE PLAN):

Fresh water eel, called *Kuchia* in Assamese, is mostly preferred to their fishes in Assam due to its therapeutic value and marketability in live condition, Price of this fish is very high due to its increasing market demand and shortage of supply. Therefore, culture of this eel, *Kuchia*, has been introduced in the state on pilot/experimental popularization of new and innovative technology and enhancing fish production may be mentioned as the basic aim of the scheme.

6.5.3.5.1.4.5. CULTURE OF AIR-BREATHING FISHES (UNDER STATE PLAN):

Due to some natural and other manmade reasons, air-breathing fishes like *Magur*, *Singhi*, *Kawoi* etc. which are available in the state has declined drastically. Culture technology as well as seed production of some of these air-breathing fishes has been standardised by research institutes and subsequently adopted by Government as well as private farms.

6.5.3.5.1.4.6. FISH FEED MILLS (UNDER RKVY):

In the districts of Jorhat, Chachar, Karimganj, Goalpara, Nagaon, Barpeta (2), Nalbari and Sonitpur, Nine Fish Feed Mills have been commissioned under private sector. Another fish Feed Mill has commissioned at Morigaon under AFDC Ltd. In order to make fish feed available at reasonable rate to the farmers.

6.5. FISHCULTURE AND FINANCIAL ASSISTANCE FROM GOVERNMENT:

Financial assistance has been granted to the fish farmers of Assam both by Central as well as State Govts. Table 6.5 reflects that total number of beneficiaries have been increased from 2217 during 2001-02 to 1.62 lakh in 2014-15. Parallely, financial assistance provided by the Government has also increased from Rs.1034.48 lakh in 2001-02 to Rs. 1516.62 lakh in 2015-16 with some ups and down in the middle of the years. It should, however, be noted that although there is an increase total financial assistance, fund allocation per beneficiaries has declined from Rs. 0.467 lakh in 2001-02 to 0.015 lakh in 2015-16.

Table-6.5 Financial Assistance provided for Development of Fisheries in Assam during 2001-02 to 2015-16

Year	No. of Beneficiary	Fund Utilised (lakh Rs.)	Average Fund per Beneficiary (in Lakh Rs.)
2001-02	2217	1034.48	0.467
2002-03	808	424.14	0.525
2003-04	1603	404.00	0.252
2004-05	2889	567.42	0.196
2005-06	1308	1782.61	1.363
2006-07	8372	851.80	0.102
2007-08	10203	1124.75	0.110
2008-09	15788	4902.40	0.311
2009-10	34020	3644.31	0.107
2010-11	56856	2695.59	0.047
2011-12	58112	4542.18	0.078
2012-13	63964	6416.50	0.100
2013-14	57751	5157.32	0.089
2014-15	162862	4361.07	0.027
2015-16	100000	1516.62	0.015

Source: Directorate of Fishery, Government of Assam.

Note: Fund utilised not only meant for beneficiaries but also for many programmes/projects implemented by the department.

Both the Central and State Governments have been advancing financial assistance to the fish rearers of the state for various purposes under various schemes. Assam. Agricultural Competitiveness Programme (AACP) Integrated Fish Farming (IFF), Assam Vikash Yojna (AVY), Fish Farmers Development Agency

(FFDA), Rastriya Krishi Vikash Yojana (RKVY), Tribal Sub Plan (TSP), District Development plans, programmes and schemes which have been launched by the Government of Assam for the development of fishery sector in Assam. Financial assistance to fish rearers are provided for various purposes, such as, development of existing tanks, construction of new tanks, creation of nursery tanks, creation of rearing tanks, Indian Major Carp hatchery, conversion of low-laying area to community tank, pig cum fish farming, development of pen culture, ornamental fish breeding, boat for fisherman, development of *beel* and open water fisheries etc. Besides it, financial assistance is also provided for construction of dwelling houses to the fishermen.

Table 6.6 presents the Government financial assistance provided to fishery sector under different schemes and programmes in the district of Barpeta during 2003-04 to 2014-15

**Table-6.6 Financial Assistance Provided to Fishermen
by Government in Barpeta District during 2003-04 to 2014-15**

Year	No. of Beneficiary	Water Area (in Hectares)	Amount of Financial Benefit (in Lakh Rs)	Financial Benefit per Water Area (in Hectare)
2003-04	16	4	9.80	2.45
2004-05	12	1.34	0.30	0.22
2005-06	302	35.76	27.7	0.77
2006-07	217	44.64	59.38	1.33
2007-08	310	48.71	45.04	0.92
2008-09	659	131.20	147.91	1.13
2009-10	423	98.25	113.03	1.15
2010-11	172	20.65	19.79	0.96
2011-12	84	46.8	88.19	1.88
2012-13	141	49	129.06	2.63
2013-14	176	50.63	3975.85	78.53
2014-15	156	29.25	95.61	3.27

Source: District Fishery Development Office, Barpeta

It is seen from the table that only 16 fishermen received financial benefit amounting Rs. 9.80 lakh during 2003-04 from Government in the Barpeta district. In 2003-04, financial benefit per hectare water area was Rs.2.45 lakh. The purpose of this financial aid was the construction of houses to fishermen under National

Welfare Fund and the development of derelict water bodies. In 2004-05, however, the number of beneficiaries as well as financial aid had declined to 12 and 0.30 lakh respectively. There was also a drastic decline of financial benefit per hectare water area from 2.45 lakh in 2003-04 to Rs.0.22 lakh in 2004-05. AACP was initiated by the Government of Assam in 2005-06, under which assistance are given to fish rearers for development of farmers pond, integrated fish farming and community tank. In that year, number of beneficiaries had increased to 302 with Rs.27.7 lakh for 35.76 hectares water areas. Financial benefit had also increased to 0.77 lakh on an average of water bodies per hectare in the year 2005-06. The highest number of beneficiaries is 659 in the year 2008-09 with the largest water area of 131.20 hectares. This increase may be due to inclusion of Rastrya Krishi Vikash Yojana (RKVY) under which 140 fish rearers were benefited in 2008-09. It is, however, seen that financial benefit per hectare water area was Rs.1.13 lakh only. Highest financial assistance of Rs. 3975.85 lakh was provided to 176 fish rearers in the year 2013-14 with an average of Rs.78.53 lakh per hectare water area.

6.6. CONCLUSION:

For the growth of any economic activity in a proper way, availability of cheap credit at appropriate time is a prime need. Though the institutional and non-institutional sources of finance in Assam are there in adequate number, they play a very limited role in financing fish culture. Still now, no major steps have been taken by the financial institutions towards the development of fishculture in Assam. Though there are a plenty of non-institutional sources of finance in Barpeta district, fish culturists are not willing to take credit from them as they charge an unjustified high rate of interest. Such a high rate of interest significantly reduces their profitability making the activity non-remunerative. This is the reason why this old age sector is not growing optimally at a desired rate. Limited resources of the rearers from their own may be mentioned as the main constraint of the activity.

Rearers are provided with grants in aid by the Government. However, the grants are not only insufficient or misutilised, but in some cases even

misappropriated also by the corrupt Government officials in the name of rearers for which the actual rearers are not benefited at all. Therefore, actual rearers should be identified by framing a proper policy so that proper utilization of available resources are ascertained and fish rearers can be made more competitive.

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