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## Assessment of status of the fishery cooperatives, SHGs and fishermen groups in Baster district of Chhattisgarh: A review

**Ankit Thakur****Abstract**

Fisheries sector occupies a very important place in the socio-economic development of the country, as it contribute to economic growth and human welfare. Fisheries sector has been recognized as the powerful income and employment generator for the poor people of rural area. Six purposively selected blocks namely Jagdalpur, Bastar, Lohandiguda, Tokapal, Bakawand and Darbha located in Bastar district were selected for the purpose of the study. The sample size was comprised of numbers 10, 21 and 43 members from the fishery cooperative societies, SHGs and fishermen groups respectively, with overall respondents being 74. The various characteristics of respondents were studied considering age, education, sex, group size, occupation, annual income, size of water body/pond and credit acquisition as independent variable as well as to find out the economics, constraints and suggestions of fish production. Socio-economic characteristics of the respondents indicated that the majority of them belonged to middle age (35-55 years), had middle school education for fishery cooperative societies as well as SHGs and up to primary school education for fishermen groups, SHGs were having about 71.43 % of females as compared to only 28.58 % of males, however in fishery cooperative societies and fishermen groups their percentage was very less, more number of members were found in fishery cooperative societies as compared to SHGs and fishermen groups, it was expected because cooperative societies work on a large scale, majority of respondents had benefited manifold by doing agriculture, animal husbandry as well as fisheries at a time. Per hectare production cost was almost similar in fishery cooperative societies and SHGs (Rs. 38883.31 & Rs. 39152.67 respectively) however it was much more in case of fishermen groups (Rs.56125.48) indicating the better economics of the earlier. Productivity of fish was found 32.50 quintals, 42.22 quintals and 38.16 quintals of fish for fishery cooperative societies, SHGs and fishermen groups, respectively.

**Keywords:** fisheries, socio-economic characteristics, productivity, constraints**Introduction**

Fisheries sector occupies a very important place in the socio-economic development of the country, as it contribute to economic growth and human welfare. Fisheries sector has been recognized as the powerful income and employment generator for the poor people of rural area. In view of its potential contribution to national income, nutritional security, employment opportunities, social objectives, and export earnings. The fisheries sector has witnessed an impressive transformation from a traditional subsistence activity to a well-developed diversified commercial enterprise with vast untapped potential. The food security problem in India has been alarming due to the rapid growth of population and the reduction of per capita land. The current scientific, economic, environmental and social trends are forcing farmers and policy makers to look for alternatives to fulfill the nutritional requirement for the growing population. Fish with an average of 18-21 percent protein can be the best alternative in this context. Fisheries sectors have been playing an important role in the national economy through improved food supply, employment and income. During 2002-03, fisheries sector contributed Rs.35482 crores to the total Gross Domestic product (GDP), forming 1.43 per cent of the total. Fish farming practices hold promise for many small formers and potential significant benefits for strengthening the rural economy. Constituting about 5.68% of the global fish production, India today is the second largest fish producing nation in the world. India is also a major producer of fish through aquaculture and ranks second in the world after China.

The total fish production during 2013-14 (provisional) is at 9.58 million tonnes (MT) with a contribution of 6.14 MT from inland sector and 3.44 MT from marine sector respectively. Fish production has increased from 41.57 lakh tonnes (24.47 lakh tonnes for marine and 17.10 lakh tones for inland fisheries) in 1991-92 to 95.79 lakh tonnes (34.43 lakh tonnes for marine and 61.36 lakh tonnes for inland fisheries) in 2013-14 (P). The fish production during first two quarters of 2014-15 has also shown an increasing trend and is estimated at 4.37 Million

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Tonnes (P). Finance plays a crucial role in accelerating any business activity/economic development and fisheries sector is not an exception.

The economic activities of the fishing villages mainly depend upon the availability of credit at reasonable cost to enhance production and income. The quantum of indebtedness at a reasonable level of interest sourced out from the organized sector is definitely an indicator of development, since availability of finances boosts up the economic activity and capital formation in a region. Mobilized group ventures in the country, comprising Self Help Group (SHG), Microfinance Institution (MFI), Farmer Entrepreneurial Group (FEG), Bharat Kisan Centre (BKC), Swayam Sahayak Sangh (SSS), *Ayalkoottam* (AK) etc., perform an appropriate micro-enterprise with microfinance as essential component ensuring sustainable development. Whatever may be the connotation, the essence is a mobilized group venture with a productive economic activity initiated by thrift deposits and sustained by an appropriate micro-enterprise either independently or by the intervention of an external agency where microfinance is the basis. From the idea of credit unions, Cooperative movement came into existence.

Development of Cooperative has been envisaged as a significant strategy to build up strength in the people. With limited means, the co-operative movement aims at saving the rural poor, small farmers, marginal farmers, agricultural laborers and small artisans from exploitation by moneylenders. Today, India has a wide network of primary agricultural credit societies at village level. At district and state level, co-operative federations have also been set up in almost all states. According to (Puhazhendhi, 2000) [31], at one stage, cooperative credit institutions in the country were considered as an option to bridge the gap between the poor and the Banks. However, the poor could not derive the intended benefits from the cooperatives mainly because the size of the cooperative societies was too large and people of diverse interests were grouped together.

Economic and caste barriers were too strong for the people to work together as one cohesive unit. One of the strategies for the development of inland fisheries has been propagation of intensive aquaculture in tanks and ponds through the Fish Farmer's Development Agencies (FFDAs). Most of these FFDAs operate at district level while some function at region/state level. The Agencies select suitable water areas, arrange lease on long term basis to identified beneficiaries, provide assistance for construction of new ponds, renovation of ponds and tanks, establishing running water fish culture, inputs, setting up of seed hatcheries, besides training to fish farmers/fishermen and giving them extension support.

Basically, the Fishery Cooperatives were organized to meet the needs of local fishermen community. However, with the development of freshwater/ brackish water aquaculture and marine fisheries activities, the scope of fishery cooperatives has become enlarged. They are now undertaking various activities like fish production, transportation, preservation, processing, marketing etc. The cooperatives also carry out supportive activities such as credit distribution, manufacturing and supply of occupational requisites like craft and gear, ice production, fuel distribution, consumer articles distribution etc. There is a need to actively involve Panchayati Raj Institutions and Cooperatives, Private sector, NGOs, Self-help groups (SHGs) in promoting fisheries. There are some success stories in respect of few of these institutions. For instance, the marketing initiative of NCDC, Varsova Co-operatives Society, Arnala Cooperative Society, Deogarh

Cooperative Society in the Maharashtra state, Mudiwali Cooperative Society, and Saguna Union in West Bengal, Gangotri Cooperative Society in Karnataka, etc. are the shining examples of success. Self-help groups are necessary to overcome exploitation, create confidence for the economic self-reliance of rural people, particularly among women who are mostly invisible in the social structure. These groups enable them to come together for common objective and gain strength from each other to deal with exploitation, which they are facing in several forms. A group becomes the basis for action and change. It also helps buildings of relationship for mutual trust between the promoting organization and the rural poor through constant contact and genuine efforts.

Self help groups plays an important role in differentiating between consumer credit and production credit, analyzing the credit system for its implication and changes in economy, culture and social position of the target groups, providing easy access to credit and facilitating group/organization for effective control, ensuring repayments and continuity through group dynamics; setting visible norms for interest rates, repayment schedules, gestation period, extension, writing of bad debts; and assisting group members in getting access to the formal credit institutions. Thus, self help group disburses microcredit to the rural women for the purpose of making them enterprising women and encouraging them to enter into entrepreneurial activities.

Credit needs of the rural and urban poor women are fulfilled totally through the SHGs. SHGs enhance equality of status of women as participation, decision-makers and beneficiaries in the democratic, economic, social and cultural spheres of life. Useful studies have been done on various aspects of fish production technology and economics in different part of the country.

However, very meager work has been done for analyzing the importance and involvement of fishery cooperatives societies, SHGs and fishermen group, hence specially in Chhattisgarh a comparative economic study is undertaken for the socio economic assessment, status and viability of these groups in the Bastar district of Chhattisgarh. Bastar district is being selected purposively for the present study because it is mainly dominated by the tribal, poor and backward class people, where fisheries and its related activities play an important role in earning their livelihood. In view of the above mentioned facts, the present study "Assessment of status of the fishery cooperatives, SHGs and fishermen groups in Bastar district of Chhattisgarh" was undertaken with the following specific Objectives.

1. To identify the socio-economic status of fishery cooperatives societies, SHGs and fishermen groups in the study area.
2. To workout the comparative economics of fish production by fishery cooperatives Societies, SHGs and fishermen groups.
3. To find out the various functional problems & training needs and also suggest suitable measures for sustainable management of these groups.

### Review of literature

One of the important aspects of research is the review of past literature. The researchers have to review the concerning literature at every stage. It is not one short exercise but a continuous process while going through the literature the researcher is acquainted with the subject matter, techniques and material makes his effort in desirable direction. Through review, researcher comes to know about the methods,

procedures and technique as well as results of past studies. It provides clues and guidance throughout the research process. Steady efforts were made to compile research findings of the research studies possessing more or less similar characteristics. The present chapter incorporates all the relevant literature developed in India and abroad related to socio-economic profile and comparative economics of fish farmers. Therefore, studies related to fish farming were also reviewed and presented covering all aspects of the investigation comprehensively under the following headings:

- 1.1 Socio-economic profile
- 1.2 Comparative economics
- 1.3 Constraints
- 1.4 Suggestions
- 1.1 Socio-economic profile
  - 1.1.1 Age

Pandey *et al.* (2013) found that a significant percentage (38.89%) of members of Fishery based SHGs were belonged to old age category and 35.56 per cent were in young age category. However the proportion of middle age group was lower (25.56%). Nath (2014)<sup>[25]</sup> studied the socio-economic status of fish farmers in Arunachal Pradesh and found that in both the districts more than 60 per cent of the surveyed fish farmers belonged to matured age category *i.e.*, 30-50 years and 31 per cent belong to old age category *i.e.* more than 50 years, only 8 per cent of surveyed fish farmers were young. It was observed that in Lohit district the average age of surveyed fish farmers was found to be higher *i.e.*, 49 years than that of Lower Subansiri district (42 years). It may be due to the fact that in Lohit district, a good number of ponds were found to be relatively large and matured farmers were found operating large size ponds since they had long experience and more managerial skill in fish production.

### 1.1.2 Education

Jeeva *et al.* (2007)<sup>[18]</sup> found that the majority of aqua farmers belong to middle age group, educated up to high school level and had experience of 12 years in aqua farming. On an average they had undergone one training programme in aquaculture. The frequently used information sources were friends, neighbours, and input dealers. Abraham *et al.* (2010)<sup>[2]</sup> found that the majority of fish farmers practiced aquaculture in owned (33%) and leased (67%) ponds and experience was mostly in the range of 5-20 years and educated up to middle school level. In case of occupation majority of farmers were involved in other activities besides fish culture. Goswami *et al.* (2011)<sup>[14]</sup> revealed that the majority of fish farmers education level was medium *i.e.*, primary and middle school level. Overall education level was up to medium school level *i.e.*, primary to middle high school. Angela *et al.* (2012)<sup>[3]</sup> observed that 58 per cent of respondents belonged to old age group and this may be attributed to their years of experience and the lack of interest in shifting the occupation. More number of illiterates (54%) and people with low education are involved in fishing. This may be due to the fact that people with moderate level of education tend to be involved in other occupations which require educational background. Olale and Henson (2012)<sup>[26]</sup> analyzed and discussed the socio-economic characteristics of fish workers, with a focus on those based on the Kenyan shores of Lake Victoria. In particular, the paper considers the characteristics of fish workers in general and by type of fish work, beach location and income diversification strategy. Although, many characteristics of the fish workers were

identified, six characteristics stood out: (1) 20% of the fish workers had secondary education, while 80% had primary or no formal education; (2) a fish worker had an average of seven dependents; (3) 98% of the fishers were males, while 83% of fish traders were females; (4) around 26% of fish workers had diversified their income; (5) 64% of the fish workers lived below the poverty line; and (6) fish workers who diversified income had lower incidence and depth of poverty. The results implied that income diversification is a potential way out of poverty among fish workers. Pandey and Upadhyay (2012)<sup>[27]</sup> revealed that a model aquaculture village namely Kulubari which is adjacent to Indo-Bangladesh boarder in Boxanagar R D Block, Sonamura sub-division of West Tripura district was purposively selected for the study. The findings of the study showed that the majority of fish farmers are in middle age group, education upto middle level, larger family size, in general categories, with sufficient experience in aquaculture, medium level of social participation, smaller pond area with single ownership and very low level of family income. These socio-economic characteristics of fish farmers must be taken into account for formulation, designing and successful implementation of developmental programmes. Verma *et al.* (2013)<sup>[42]</sup> studied socioeconomic profile of the SHG's beneficiaries, their achievement motivation, innovativeness, loan matrix and performance of Fishery based SHGs and found that a significant percentage (38.89 %) of members of Fishery based SHGs belong to old age category and 35.56 per cent to young age category. However the proportion of middle age group was lower (25.56 %). Among the members of SHGs, majority (91.1 %) was literate and most of them were educated up to High school. The agriculture including fisheries was recorded main occupation of 53.33 per cent respondents. Only 8.89 per cent SHG members reported membership of social organization.

### 1.1.3. Sex

Nath (2014)<sup>[25]</sup> studied the sex /gender distribution and shows that most of the surveyed fish farmers (93 per cent) were male. However it is interesting to observe that around 8.5 per cent of surveyed fish farmers were females in case of Lohit district of Arunachal Pradesh.

### 1.1.4. Occupation

Goswami *et al.*, (2010)<sup>[15]</sup> reported that occupation of fish farmers was positively and significantly related to adoption of scientific fish culture practices. Respondents, who pursue fish culture as primary occupation for supporting the family, are better adopter, as they were completely dependent on fishery for their livelihood. Goswami *et al.* (2011)<sup>[14]</sup> revealed that the majority of respondents perceived fish culture as secondary occupation. Rajan *et al.* (2013)<sup>[33]</sup> concluded that most of the fish farmers were doing fish farming + singhara cultivation as an occupation for livelihood of the family.

### 1.1.5 Size of water body/pond

Goswami *et al.* (2011)<sup>[14]</sup> revealed that the majority of ponds were medium sized, low to in water holding and rainfed. Onemolease *et al.* (2011) revealed that the positive coefficient for household suggests that larger household earned more farm income than smaller household. Abiona *et al.* (2011)<sup>[11]</sup> observed that the highest percentage of farmers (40%) were small farmers followed by medium farmers (30.83%) and marginal farmers (22.66%) in addition to a meager percentage of 7.6 under large farmers as shown. Goswami (2012)<sup>[14]</sup>

concluded that majority of the ponds were medium to small sized and water holding capacity were low to medium and rainfed. Rajan *et al.* (2013) <sup>[33]</sup> stated that the average pond size holding of fish farmers was 1-2 acres. About 81 % of fish farmers had common pond for fish farming and only 19 % of fish farmers had their own ponds. Tochhawng *et al.* (2013) <sup>[40]</sup> reported that nearly half of the respondents had marginal land holding with a farming experience of above 10 years.

### 1.1.6 Credit acquisition

Wetengere (2009) <sup>[43]</sup> showed that, in the past 12 months, only 8 per cent of the sampled population obtained credit from various sources (neighbors/relatives/friends, 7 per cent; government institutions, 1 per cent). None of the respondents obtained credit facilities from formal financial institutions, and none of the credit was for aquaculture. In rural areas like Morogoro, farmers go to their well-off neighbors (e.g., teachers, health officers, politicians, and business persons) for borrowing. Farmers mentioned that the main reasons for borrowing from these groups were because they knew and trusted each other; they were more accessible as they all lived in the same locality and had personal relations. Consequently, it was easy to follow-up repayment of loans. Some farmers mentioned that the common practice was to borrow cash from these groups and promise to pay back in kind (cash crops) when they harvest their crops. Goswami *et al.* (2011) <sup>[15]</sup> revealed that the majority of most of the farmers belonged to low level of credit orientation. Goswami (2012) <sup>[14]</sup> reported that most of the farmers belonged to low to medium level of credit orientation, and possessed medium to high level of knowledge. Angela *et al.* (2012) <sup>[3]</sup> stated that majority (89%) of the fishers were found to be dependent on money lenders for credit.

## 2.2 Comparative Economics

Pomeroy (1989) <sup>[30]</sup> studied the many misconceptions and unanswered questions related to small scale fishermen and fishing communities in the Philippines. Among these questions are dealing with the behavior of fishermen and fishing communities, especially when a fishery is over fished and alleged in perfections in the marketing system resulting from the suki market per credit relationship between a fishermen and middlemen which was prevalent in the Philippines. This research, conducted on the matalom fishery, presents a methodology to examine these questions which includes an economic analysis of production of the major types of fishing gear, costs and earnings were studied and found that the technical and pricing efficiency and performance analysis of the fresh fish marketing system. This methodology emphasizes the study of both the production and marketing sectors of the fishery. Record keeping seems to be the preferred method to collect data. It was concluded that a combination of descriptive, organizational and pricing efficiency methodologies is in analyzing marketing systems. Chouhan and Sharma (1993) <sup>[8]</sup> studied the fisheries co-operative societies' set-up of pond, dam and reservoir in Himachal Pradesh. They examined for the increasing of sustainability during the period of fifteen years *i.e.* 1976-77 to 1990-91 of aims, objectives, organizational structure, growth and functioning of nine fisheries co-operative societies. The fisheries sector alone accounted for 76.16 per cent of the fishermen's net income. All the fisheries co-operative societies successfully proved their worth making profits year after year. The annual profit per fisherman in the co-operative was Rs.135. The marketing business revealed that the major

share (52.43 per cent) of the consumer's rupee goes to the fishermen followed by contractor (12 per cent) and retailer (10 per cent). It was showing an efficient marketing system. The authors concluded that the main factors responsible for co-operatives success were close linkage between co-operative societies and state government, fishing ban during breeding months, use of recommended size of gillnets, provision of regulated market and remunerative prices, strong authoritative system, proper and quality of dissemination of improved technology, provision of group insurance policy at subsidized premium etc. Marothia (1995) <sup>[21]</sup> presented an overview to understand properly relation and institutions role in managing environmental and natural resources in village ponds of Raipur district of Chhattisgarh. The author concluded that the selection criteria for choosing leaseholders for rights to aquaculture in community ponds needed modification to standardize the economic and social behavior of fisherman and villagers. Class conflicts could be minimized, when the ponds are managed by fishing co-operatives, if all members of particular village, regardless of class have entry to co-operatives. The fishing co-operatives have well defined by-laws that govern rights, duties and organizational structure under this system, fishermen did not complete for fish catches and they managed the ponds according to socially acceptable objectives. Moreover, the co-operative was a potentially powerful organization for the adoption of intensive and semi-intensive mixed fish culture. Singh (2001) <sup>[37]</sup> analyzed that the economics of fish production and marketing system of six districts in Bihar state, India. It revealed that fish production was the domain of poor farmers on small size of ponds, which were taken under lease arrangements. Traditionally technology was still practiced due to absence of fisheries extension services. However, the economics of fish production is reported to be favorable, though there existed a shortage of fish seeds due to lack of fish nurseries. The low level of fish production is expected to generate low level of profitability to fish farmers in North Bihar. The production function analysis revealed that the variables included in the function explained only about 57 per cent of fish production. Despite the low level of fish production, per hectare gross income, net income, family labour income and farm business income were reported to be higher on medium size ponds than on large and small ponds. Fish marketing is reported to be still unorganized. Finally, the study suggested some policy measures for enhancing fish production and improving the marketing system. Dwivedi (2004) <sup>[11]</sup> reported the field experience of institutional integration between cooperatives and self-help groups (SHGs) under the Swarnajayanti Gram Swarozgar Yojana (SGSY), a poverty alleviation programme launched by the Indian government in 1999-2000. Six case studies of functional integration in North 24 Parganas district (West Bengal, India) were presented, which involved a dairy cooperative, a paddy processing and marketing cooperative, fisheries cooperative, a primary agricultural cooperative society, a handloom cooperative, and a consumer cooperative. The case studies demonstrate that when SHGs get integrated with functional cooperatives, they can develop a symbiotic relationship. Both the institutions have strong similarities based on principles of self help and mutual aid. The paper concludes by addressing policy issues of organizational re-engineering in the context of current development initiatives concerning the poor. Jain *et al.* (2006) <sup>[17]</sup> studied the economics of Production and Marketing of Fish in Raipur district of Chhattisgarh, they found that this study the average net income per fish farm

estimated at rupees 33244 per hectare indicates that fisheries could be a profitable enterprise for a large number of rural people in Chhattisgarh. With proper fisheries management, technical and financial support, improved marketing and market infrastructure, availability of good quality but cost effective seeds and extension support the productivity of fisheries could be increased. The benefit cost ratio of 1:0.70 could be further improved upon through credit and support subsidy particularly, for creation of ponds and tank structures in the state of Chhattisgarh. EI-shaer, A. A. (2006)<sup>[12]</sup> studied the economical and production efficiency of the various fish farming patters in Damitta Governorate, Egypt. Results showed that the total production of fish farming in Damitta governorate reached approximately 62 thousand tones, representing 17% of the total production of fish farming in Egypt. Nongovernmental and cage farms represent approximately 77.6 and 20.7%, respectively of the total production of fish farming in the studied governorate and represent approximately 59.8 and 16%, respectively of the total fish production. Cichlid fish farming in non-governmental and cage farms represent approximately 62.3 and 32.5%, respectively, of the total production of cichlid in Damitta. Results also showed that the actual production size is less than those in optimal and economical sizes. Consequently, there is a potential to increase the productivity of fish farming in Damitta governorate. The total cost of 1 kg of cichlid produced in non-governmental and cage farms reached approximately <pounds>E 4.8 and 5, respectively, and had variable costs of 56.6 and 91%, respectively. The farm budget analysis indicated that the net return of cichlid fish produced in non-governmental and cage farms reached approximately <pound>E 2.4 thousand per feddan and <pound>E 16.8 thousand per cage. Moreover, the net return of mullet fish reached approximately <pound>E 1.4 thousand per feddan. Gauraha *et al.* (2007)<sup>[13]</sup> revealed that the co-operative management of pond Fish culture: a micro level study through them carried out fish activities provide at least 80-100 man days employment to the member of the societies. Major problems in the selected ponds were continuous deterioration of water quality due to continuous flow of effluents and sewage wastage in the water of the ponds. Illegal residences along the bunds of ponds create lot of problems especially for fish activities like fertilizer, liming and manuring due to sewage water growth of water hyacinth is high which creates problems in the growth of fishes and other activities of the fish farming. The people who are living legally on bunds of ponds are not co-operating the fishermen. Degradation of ponds in terms of bunds, water availability, water quality, animal tending was continuing. Fish poaching is another problem for the fishermen. Aswathy *et al.* (2011)<sup>[6]</sup> analyzed the costs and returns of mechanised fishing units, to assess the operation cost of single day trawlers, to examine the operational costs and returns, prices and quantities of the major species caught and the capital investment in various mechanized units, to compare the financial ratios and labour productivity ratios of different fishing units. They results shown that the average cost per single day trip of a trawler was Rs. 5, 662 (includes Fuel, Bata, Wages, Repairs, Auction charges and Fixed cost) and the total returns was Rs. 8, 095. The results of multiday trawlers (2 – 5 days) shown that the total expenditure per trip was Rs. 47,898 (includes Fuel, Bata, Wages, Repairs, Auction charges, Ice and Fixed cost) and for above 6 days Rs. 1, 19,470. The total cost of mechanized purse seiners in Cochin Fisheries Harbour was Rs. 62, 621. The total costs and returns per trip of mechanized

gillnetters/liners operated single day, 2 – 5 days and above 6 days was Rs. 11,509, Rs. 32,946, Rs. 81,244 and Rs. 16,033, Rs. 36,643, Rs. 89,545 respectively. Their estimated labour income loss during ban period 39 days was around 50.30 crores and during this period the mechanized trawl sector affected badly. Mula *et al.* (2012)<sup>[23]</sup> reported that microfinance through Self-Help-Groups (SHGs) is one of the most powerful tools for rural development for the enhancement of self-income and employment of rural poor of developing countries. Further, the viability and capability of SHGs in entrepreneurship development depends on their demographic features and low cost resources availability also. Cooch Behar is one of the less development districts of West Bengal. From the study it has been revealed that nearly 60 percent members of the groups belong to SC community, more than 80 percent member falls in the age below 40 years with lower educational level and nearly 70 percent of the members, involved from different occupations to form SHGs, have a monthly family income of less than Rs.3500. The important findings of this investigation is that five entrepreneurship activity *viz.* Piggery, Banana plantation, Goatery, Sheep Rearing and Poultry are the most premiers selections in terms of generating self-income and employment based local available resources. Verma and Pandey (2013)<sup>[42]</sup> concluded that micro finance through Self Help Group (SHG) has been recognized internationally as the modern tool to combat poverty and rural development. The impact of micro lending has attracted considerable attention of developmental agencies, policy makers, financing agencies, academicians, researchers and even corporate bodies. From the prospective of development and economic wellbeing of resource poor people, Self Help Group (SHG) approach is more successful than any other group approaches in the country. In Tripura also many programmes and projects have been implemented to promote formation of SHGs. The fishery based SHGs in the state are playing significant role in empowerment of the poor people particularly fish farmers. Keeping importance of SHGs in view a study was conducted during 2012 in Dukli block of West Tripura district of Tripura by selecting 15 fishery based SHGs and 90 beneficiaries to assess the performance of the SHGs. In this paper socioeconomic profile of the SHG's beneficiaries, their achievement motivation, innovativeness, loan matrix and performance of Fishery based SHGs have presented. The performance of the fishery based SHGs were evaluated using NABARD checklist and out of total 15 SHGs selected for study, 10 SHGs grouped in good category, 3 SHGs were classed into very good category and 2 SHGs were categorized into unsatisfactory category.

### 2.3. Constraints

Pandya *et al.* (2002)<sup>[28]</sup> observed that non-availability of loans from nationalized banks in time, lack of training facilities, lack of technical guidance in time and unorganized extension activities at village level were the major extension constraints experienced by the Inland Fishermen, undeveloped cooperative structure for marketing inadequate transportation facilities, untimely supply of seed, poaching of the fish and maintain the water level in the fish pond were the major production constraints experienced by the Inland Fishermen. Bhaumik *et al.* (2005)<sup>[7]</sup> found that the major constraints perceived by the operative's society were as entry of pollutants, outbreak of fish disease, unauthorized fishing, non – availability of finance and weed infestation were their main constraints. De *et al.* (2006)<sup>[10]</sup> identified that the constraints were as conflicts on distribution of benefits, domination of

few individuals in the whole affairs, absence of community affiliation and sense of mutual cooperation, poor technical skill of farmers, market intermediaries. Nair *et al.* (2007) [24] evaluated the functions of fishery cooperatives in Vasai taluka, the financial performance of fishery cooperatives and to find out the constraints involved in management and operation of societies. The study has identified that the lack of resources and lack of infrastructure facilities, involvement of middlemen in marketing, lack of proper training, lack of awareness, lack of collaborative relation and coordination between financial institutions, lack of cooperation among members and lack of organizational skill in management, supervision, accounting and auditing, record keeping are the major reasons for affecting societies. Hence they recommended that the necessary step has to be taken to improve the function and business performance of fishermen cooperative societies and essential facilities like adequate credit, preservation, transport and marketing has to be developed. Khan *et al.* (2007) [19] conducted a study to find out constraints in adoption of Aquaculture techniques, and noticed that even after good production of Fish seed, non-availability of quality fish seed in adequate quantity, lack of technical knowledge on fish production and protection technologies as the main constraints. Punekar *et al.* (2007) [32] found that the important problems faced by the majority of respondents were given the reasons for adopting traditional practices of smoked fish were due to difficult to get loan, non-establishment of processing and storage facilities etc. Abiona *et al.* (2011) [1] showed that respondent's constraints had significance relationship with farmer's knowledge of fish farming at 0.05 levels ( $r = -0.002^{**}$ ,  $p < 0.05$ ). Thus showing that the more the extent of challenges confronting an average farmers in their production activity, the lesser their likelihood of involving in technologies that involved further integration. This observation is in accordance with the report of Spangler, (1984) that drought, poor road, lack of credits (for expansion of aquaculture/agriculture), transportation problems and other related constraints in fish farming required urgent interventions from the government to strengthen research or new technology. Mohanty *et al.* (2011) [22] stated that the constraint analysis through preferential ranking technique delineated as many as nine constraints. They were: (1) lack of awareness and technical knowledge, (2) high feed cost, (3) low water depth in summer, (4) lack of interest, (5) not one man's job, (6) priority to domestic use, (7) non-availability of fingerlings in time, (8) agriculture vs. aquaculture and (9) No emergency assistance. Singh *et al.* (2012) [38] reported that the erratic fluctuation in the price of fish was the major problem to majority of the fishermen (84.16%). Lack of cold storage and insufficient loans/subsidies were the other problems reported by 75.83 per cent and 74.16 per cent of the fishermen, respectively.

#### 2.4 Suggestions

Vallathan (2005) [41] suggested that the fund allocated to fishery sector has always been less than proportionate to its contribution to the economy so in the future plans it should be considerably enhanced. The minimum facilities like sheds, cold storage and refrigerated facilities had to be developed in the landing centres. Fishermen co-operative societies should develop their own processing units at fish landing centres. Mahesh (2006) [20] suggested that the marine fishing policy should include labour-intensive methods for fishing and its related activities. An appropriate non-fishing employment opportunity should be created as a complement to provide

income security to households. Samsen and Chanboreth (2006) [35] suggested that the government has to show more interest on fisheries industry by providing financial subsidies and training programme to unskilled fishermen to overcome the problems and help them to learn huge profit. Selamat and Gapor (2006) [36] suggested that to provide proper guidance to make women as significant contributor in upgrading their socio-economic status. This study has concluded that the collective actions shall improve rural community livelihoods and by utilizing the own environmental products in a sustainable manner shall help to strengthen the social structure of their community. Aswathy *et al.* (2011) [6] suggested that since fishing was the only source for their livelihood an alternative employment opportunity has to be arranged to traditional fisher on community based during this period. To generate additional income during non-ban period and regular income in ban period a savings cum relief scheme has to be operated. Singh *et al.* (2012) [38] revealed that majority of the fishermen (77.50%) suggested the regulation of price by Government intervention while 70.00 per cent of the fishermen suggested to establish cold storage in auction hall and 62.50 per cent respondents suggested to provide sufficient loans/ subsidies without collateral security from banks. Saha and Ram (2012) [34] findings suggested that besides creating facilities or training to enhance diversification, the constraints commonly agreed upon by the farmers need to be taken special care. Rajan *et al.* (2013) [33] findings suggested in general that, the farmer's knowledge increases with the increase in their education level, experience, attitude towards fish farming, scientific orientation, use of information sources, training exposure.

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