ENTREPRENEURSHIP THROUGH FISH FARMING IN CACHAR DISTRICT OF ASSAM: CHALLENGES AND OPPORTUNITIES

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Abstract

From the perspective of entrepreneurship development efforts, entrepreneurship in fish farming sector is a neglected issue. Presently, major thrust is given by the Government of India as well as the Government of Assam on the fisheries sector where by the sustainable growth in agricultural output as a whole may be achieved. In the present scenario fish farming in Assam is a tradition rather than commerce; however it is expected that in coming years it will be a major economic activity. As such, the need is to bring to the front the fishery industry of Assam with a broader marketing concept and related entrepreneurial skills. The District Cachar of Assam has immense fisheries potential. Considering the wide market demand of fish within the district that provide an immense opportunity to the fish producers, efforts are being made in this study to dig out the entrepreneurial Challenges.

Key words: Aquaculture, Entreprenurship, start up capital

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Introduction

Entrepreneurs are individuals who identify market needs and launch firms to meet those needs. In this respect entrepreneurship through fish farming is one of the potential area, which need to be addressed separately. Fish is one of the favourite items in the food menu of almost 60% of Indians. So market demand is always high for fish items. If the global demand is considered, the total requirement becomes very high. The main source of fish supplied to the market to cater the above demand is from the sea but the global fish harvest from the sea is decreasing rapidly. The only way to ensure availability of fish in order to meet increasing demand is through fresh water fish farming. Thus, Inland freshwater fish farming plays major role here.

India is blessed with large number of ponds and rivers. This adds greater opportunities for Indian farmers to develop successful career in Inland fish farming. Even though rivers are great source of Inland freshwater fishes, using rivers for fish farming is a great challenge due to various reasons. So it would be more convenient if we can utilize the freshwater ponds available for fish farming. From the Inland freshwater fish production point of view in India, around 65% of fish contribution is from freshwater ponds. But we contribute only around 5% of the global production. So there exist great possibilities for India in this field. The main fact is that huge possibilities in the fish farming are underutilized. Keeping in view the large number of natural ponds, a good business plan and decision, can convert this opportunity to a successful small scale farm. Fish culture is practiced in less than 30 percent of the total areas available. This has a potential to create huge job opportunities, provided fish cultivation is done on a scientific basis. India is a large producer of inland fish, ranking next only to Japan.

With an abundance of freshwater resources, India has still not been able to tap even 30% of the potential area for inland fish production. Many entrepreneurs have, however, chosen to take this occupation on commercial scale. This is best manifested in Andhra Pradesh, which with 10,56,000 tons of inland fish production in 2007-08 ranked next only to West Bengal, which is far more endowed with water resources. Andhra Pradesh has emerged among the ranks encouraging farmers to form cooperatives to take up farming in ponds around Kolleru Lake. Both the central and state governments have come up with schemes to help the cause of the farmers. With the importance of inland aquaculture in India and the state of Assam in mind, the

present paper provides an insight into aspects of the state's inland aquaculture resources, production practices and the challenges and opportunities.

Objective:

The objective of this current study is to examine the challenges and opportunities facing by small scale businesses in Assam with special reference to Cachar district and make suggestions that will help in solving some of these problems and enhance the participation of small firms not only in the regional, domestic but also in the global marketplace. The paper also highlights opportunities for growth and profitability in the marketplace for these firms. Understanding the challenges and difficulties faced by entrepreneurs in Assam will be important if the government will come up with policies which will stop the small businesses from being swept away by rapid changes taking place in today's vibrant economy. Thereby improve the cost of living standard.

Literature Review:

Pisciculture is an age old practice specifically carried out in rural areas for domestic consumption. Now-a-days, fish farming is being given ample importance not only by the farmers but an important policy for federal and state governments. This may result into socio economic changes in the rural areas since 'Go rural' is the slogan of modern marketing experts (Rajendhiran, Saiganesh, and Asha 2004). Being an allied agricultural practice, fisheries sector is the value addition to rural area, where rural human resources are engaged. Keeping in view the promising prosperity of rural income by doing fish farming business, the small scale fish farmers need to convert their traditional artisan practice into large scale production or enterprising. As per the report of Agricultural Finance Corporation Limited 2007-2008, India is the third largest producer of fish in the world and ranks second in inland fish production. Majority of the inland fish in India are produced in ponds and reservoirs and almost 27% of this is contributed by small and marginal fish farmers. The average productivity from ponds on the national level is around 2,500 kg/ha per year (NIIR Project Report on Aquaculture Fish Farming).This sector fulfils three major purposes such as, employment generation, source of nutritional food and foreign exchange earnings.

In lieu with the major benefits it offers, every state in India must take the initiative in making pisciculture as one of the business opportunity for small and medium scale entrepreneurs. As regards to the state of Assam, it has 391481 hectare of water spread area for Pisciculture. With these vast water bodies, Assam has been registering growth of 6.4% with production of 232 million kg in 2010-11 compared to 219 million kg in 2009-10 during the 11th plan period. The production of fish increased from 16081 ton in 2009-10 to 16970 ton in 2010-11. It is found that around 5-6% of the total population of the district is engaged in fish production *(Dept. of Fisheries, Govt. of Assam)* and most of these producers are small farmers. Since, small enterprises in rural areas play a major role in the rural economy, the overall rural development is dependent upon success of these entrepreneurs. Schumpeter (1934) identifies entrepreneurial function as innovation. The concept of innovation, according to Schumpeter covers the following five cases- (i) The introduction of a new good (ii) The introduction of a new method of production (iii) The opening of a new market (iv) The conquest of a new source of supply of raw material or half manufactured goods and (v) The carrying out of a new organization. As an entrepreneurial activity, fish farming business needs fish farmers' proper knowledge on water management, financial assistance, manpower, marketing, integration and extension, and scientific knowledge of fish farming.

Fish farming is one of the fastest growing industries, since fish as a food staple has carved a global importance (Erondu, 2005). The small scale farmers can generate more income from a small area of land by doing fish farming in comparison to other crops. The per hectare annual income from fish production is much higher than that of crop production and fish culture may appear to be a viable proposition for small and marginal farmers. Small scale farming entrepreneurship can help to reduce hunger and poverty (Mishra, 2008). Above all as a nutritional supplement, WHO recommends for the per capita fish consumption should be 11kg/year per adult. From the demand side as a nutritional supplement, there exist plenty of direct and indirect business opportunities. The issues and problems of marginal and small farmers, entrepreneurial motivations were studied by National Commission for Enterprises in the Unorganized sector (2008) and Korching et al. (2006). A farmer can be an entrepreneur in the farm sector with some enterprising skills (Mc Elwee, 2005). Business technical assistance and training was suggested by Williams (2008) for serving entrepreneurs in rural areas. There exists challenges data in understanding rural entrepreneurs at country level. For modernizing

agriculture, Information and Communication Technologies (ICT) are needed (Henderson, 2006). Edgcomb et al. (2008) covered different approaches of entrepreneurship for revitalization of rural economy. Omotoso et al. (2005) studied on the factors influencing entrepreneurship among women in fishing communities. Hale (1978) in an article identified the interrelation between entrepreneurial activities and political structures in Indian villages.

The nature of the business itself is a challenging issue for the fish farmers as fish culture deals with an aquatic environment. Unlikely other manufacturing businesses, fish farmers have to take care of the product because fish is a live aquatic animal. The success of a small scale fish farmer depends on some of the factors like his sociological and cultural backgrounds, personality and business entrepreneurial strategy. These factors can be categorised as exogenous and endogenous factors (Bouchiki, 1993). Earlier research work done on fish distribution, transportation and marketing show that the major problems in fish production are capital, marketing, disease and its control (Kudi, Bako,Atala 2008).

The micro financing system of India and micro credit in fisheries sector is highlighted by Sheikh (2011) and Manjunatha (2008). In order to adopt fish farming to a commercial scale, the small scale fish farmers of Cachar district are facing the inadequate access to institutional credit and structured market. The operational capital in the business is to be planned earlier considering the whole harvesting period, because it takes time to sell the produced fish and generate income. And, till complete harvesting, the fishes need rearing in the tank.

Access to a structured market is a major problem of the small scale fish farmers of Cachar district. As fish is a perishable item, it needs proper carriage facility and due to lack of which they have to sell them in a local market where profit is less. The existence of intermediaries between the primary producer (fish farmer) and ultimate consumer in the fish distribution channel is another issue. The difference between the price paid by a consumer and the earning of a fish producer is very high. Thus, there is a discrimination of fish farmers' net share in the price paid by the ultimate consumer. The need is to select the proper distribution channel, and to choose this, there are many factors which influence the fish farmers. There are different trends of fish landing available in different regions. The agencies involved in the distribution channel are found to be sometimes less and sometimes large. In Cachar district marketing agents involved from primary producer to final consumers are fish farmers, *Bepari* (Vendor), *Aratdar* (Wholesaler), *and Paikers* (Retailer). However, understanding their roles in

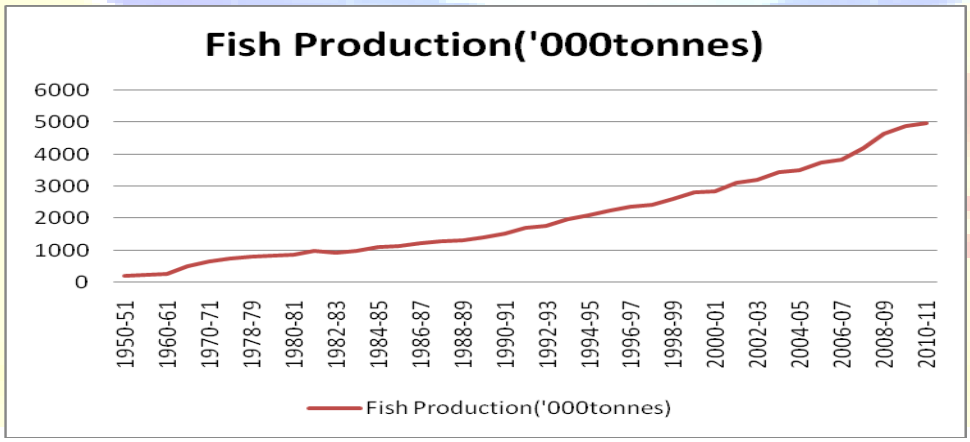
fish marketing on how they are organized, how they mobilize labour for fisheries, what available internal resources are still limited.

Croucher (2010) and Pindick (1981) have identified some characteristics of successful organization, economic aspects and forecast of business. Entrepreneurial risk was highlighted by Brockhas (1980). Past research and future challenges of Entrepreneurial functions was shown in an article by Law et al. (1988). Obiyaik et al. (2011) has given stress on entrepreneurship training for farmers in fish feed production and marketing occupation.

The extant of literature has highlighted fish farming as a profitable venture not only for small and marginal farmers but also for unemployed youth at large. Although, fish farming activity involves certain risks of production and income, loss arising out of outbreak of disease and theft, yet the employment opportunity will negate the loss.

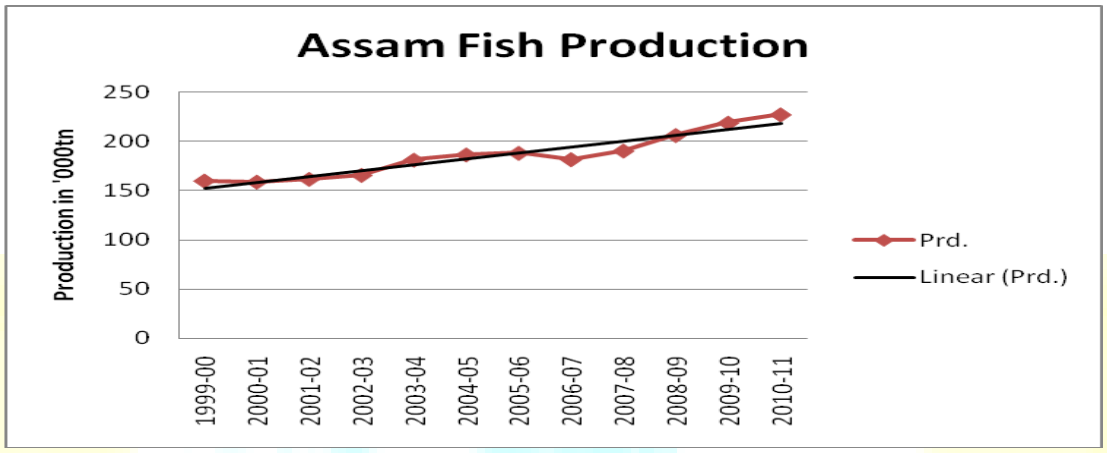
Opportunities from Aquaculture:

The importance of the fisheries sector in India is demonstrated by the fact that it employs more than five million people (Anon, 2000), contributes to food and nutritional security and employment, supports livelihoods, and raises the socioeconomic status of poor fishing communities. During the past half-century and more Indian fish production registered excellent growth, from a meager 0.75mt in 1950 to 49mt in 2011.



The significant increase in the fish production as depicted in the above chart has contributes nearly INR 200 trillion to the national economy, forming 1.4% of national gross domestic product (GDP) and 5.4% of agricultural GDP from this industry (Anon, 2000). The sector is one of the major contributors to foreign exports. During the past two decades, the inland fisheries in India, which include both capture and culture fisheries, have registered tremendous

growth and change. Thus keeping in mind the growth prospective the state of Assam and more particularly the districts must coherently work.



The state of Assam is one of the richest state in the country with surface water resources where *beel* fisheries and pond & tank fisheries alone occupies about 1.40 lakh hectares area. Besides swamps and low-lying areas, two major rivers and their tributaries have a high growth potential for scientific fish farming/ fishing and could play a pivotal role in the socio- economic development and employment generation in the State. Although the scope for utilization of the potential water spread area for profitable economic activity in terms of fish Farming/fishing is very high, yet at present scientific fish farming/fishing is carried out in only 5 percent of the total water resource area. There are about 3.91 lakh hectares of water area in the State of Assam in the form of rivers, *beel*, derelict water bodies and ponds and tanks. Fish farming in the State, in natural water bodies has been mostly traditional capture fishery only. The scientific fish farming is practiced generally in individual and community tanks. Recently emphasis has been given for scientific fish farming in *beels* and community tank through awareness, training, government support and subsequent bank linkage. There is a positive trend in fish productivity during recent past. The State is yet to reach self-sufficiency in fish production in respect of economic as well as minimum nutritional requirement of 11kg/Person considering 90% of the state's population is fish eating. The gap is partially maintained by import of fish from other states.

Challenges

In performing the fish farming practices small scale fish farmers in Assam are facing many challenges. These challenges may be a constraint as "a limitation or restriction or stiffness of manner and inhibition" and a problem is defined as "an unwelcome or harmful matter needing to be dealt with". Thus constraint is an individual's limits and is viewed as internal restrictions,

where as problems are the external obstructions that create difficult conditions to dealt with. In this study we have stressed on the challenges defined as problems and the ways to avoid it for sustainable entrepreneurial development. The challenges may be lack of startup capital, lack of technical abilities, lack of family support, lack of central and state government support, lack of training and expertise in fish farming, lack of potential market, lack of proper supply chain, low profit, low quality of and quantity of fish feed and fish seed. Apart from the above mentioned limitations there are certain endogenous and exogenous factors that affect the small scale fish farmers in achieving their goals. Therefore, in an effort to reduce the gap between the demand and supply, these challenges must be addressed carefully in order to make fish farming a profitable entrepreneurial activity.

Finding and Conclusion

The depletion of global fish stocks has turned aquaculture into the fastest growing food industry in the world. This development is also evident in India: the Indian industry continues to grow each year. India's geographical location and topographical conditions also supports the aquaculture industry, increasing its potential even more compared to other countries. The large numbers of human resources also supports India's ability to establish a potential aquaculture industry. As per the state of Assam is concerned there exists enough potential in the state in carrying out the small-scale fish farming entrepreneurial activities. The present study has been conducted in the district of Cachar as a sample. In this research these activities are identified and include fish seed production, fish feed production, market extension, product range extension, fish species extension, and utilisation of other fish parts. In their attempt to derive income improvement and product sustainability, small-scale fish farmers may experience obstacles and difficulties. There are many factors that influence small-scale fish farmers' income improvement and product sustainability. In this research these factors are being described as challenges and it is being proposed here to address these challenges successfully in order to develop the aquaculture industry and becoming self sufficiency.

References

1. Bouchikhi, H. (1993):'A constructivist framework for understanding entrepreneurship Performance', *Organisation Studies*,Vol.14, No.4, pp.549-570
2. Brockhas, R.H. (1980): 'Risk taking Propensity of Entrepreneurs', *Academy of Management Journal*, Issue23 (3), pp.509-520
3. Croucher, J. (2010): 'Transformative Business Models Organising Producers and Their Integration into The Mainstream Economy', *Financing Agriculture*, vol.42, Issue 7, pp.6-11
4. Edgcomb, E.L., Klein, J.A. and Black, D. (2008): 'Revitalizing Rural Economies Through Entrepreneurship Development Systems', *FIELD (The Microenterprise Fund for Innovation, Effectiveness. Learning and Dissemination)*, APSEN Institute, December, 2008
5. Erondu, E.S.and Anyanwu, P.E. (2005): 'Potential hazards and risks associated with the aquaculture industry', *African Journal of Biotechnology*, vol. 4, no. 13, pp. 1622-1627.
6. Government of Assam, ATMA (2005): *Strategic Research and Extension Plan of CacharDistrict, Assam*, pp.11-51
7. Hale, S. (1978): 'The Politics of Entrepreneurship in Indian Villages', *Development and Change*, SAGE, London and Beverly Hills, Vol. 9, pp. 245-276
8. Henderson, J. (2006): 'Understanding Rural Entrepreneurs at the County Level: Data Challenges' *Center for Economic Studies, Census Bureau*
9. Kudi, T.M, Bako, F.P. and Atala T.K. (2008): 'Economics of Fish Production in Kaduna State, Nigeria', *Journal of Agriculture and Biological Science*, vol.3, no. 5 and 6
10. Low. M.B. and Macmillan, I.C. (1988): 'Entrepreneurship: Past Research and Future Challenges', *Journal of Management*, Issue 14 (2), pp.139-161
11. Manjunatha, M.(2008): 'Microcredit in Fisheries Sector', *Financing Agriculture*, March-april 2008. Vol. 40, Issue 2, pp.11
12. McElwee, G. (2005): 'A Literature review of entrepreneurship in agriculture', *Developing entrepreneurial skills of farmers* (SSPE-CT-2005-006500) University of Lincoln
13. Misra, O.P. (2008): 'Livelihood through Entrepreneurship – Reducing hunger and poverty' *Financing Agriculture*, Jan- Feb, 2008, vol. 40, Issue 1, pp.38
14. National Commission for Enterprises in the Unorganised Sector (2008): *A Special Programme for Marginal and Small Farmers.*

15. Obiyai K.K., Ekpebu,I.D, and Ekubo, N,A.(2011): 'Development of Entrepreneurship Skill training Module for Farmers in Fish Feed Production and Marketing Occupation' *American-Eurasian J. Agric. & Environ. Sci.* ISSN 1818-6769, *Issue*11 (4), pp.503-506
16. Omotoso, F.O. and Daramola, G.A. (2005): 'Socio-Economic Factors Influencing Entrepreneurship among Women in Fishing Communities in Ondo State, Nigeria', *Journal of Agriculture and Social Research (JASR)*, Vol. 5, No.1, pp. 17
17. Pindyck, R.S. and Rubinfield, D.L. (1981): *Economics Models and Economic Forecasts*, McGraw-Hill Book Company Inc., 2nd Edition, pp. 630
18. Rajendhiran, N, Saiganesh, S. and Asha, P. (2004): 'Rural Marketing: A Critical Review' available at http://www.scribd.com/doc/28558091 browsed on 02.06.2010
19. Schumpeter, J.A.(1934): *The Theory of Economic Development*, Harvard University Press, Cambridge, Massachusetts.
20. Sheikh, M. F. (2011): 'Microfinance in North Eastern Region of India - What is the future? *Financing Agriculture, September 2011,, vol. 43, issue 9, pp. 37-39*
21. Williams, C.M. (2008): 'Serving Entrepreneurs in Rural Areas: My Entre Net', *Rural research report*, Fall, 2008 vol19 issue 5.