



## Introduction

India produced about 8 million ton of fish in recent times and became the third largest producer in the world. The country ranks second in aquaculture production. India's seafood exports crossed 800 thousand ton during 2010-11 fetching about ₹ 12000 crore in foreign exchange. The fishery products export exceeded all other agricultural commodities. The country is poised to achieve the projected demand of 16 million t production by the year 2025.

The quantitative figures are quite impressive though the qualitative aspects are not so visible. However, the national spirit soared high as the planners were comfortable to increase the outlay to tilt the slope of the trend line up. This has happened when globally capture fishery has been stagnating for several years. Surprisingly the limit to growth had not figured anywhere while sustainable development is being discussed everywhere.

The development of human resources to cater to the fisheries sector has apparently followed a parallel trajectory without much concern about the finer qualitative aspects on of demand and supply in space and time. Like most other sectors the incredible tendency to follow the beaten track with a more or less rigid system has infested the HRD scenario in the fisheries sector of the country. There are attempts to bring in homogeneity in the curriculum as linear thinking human mind always attempt to impose on any non-linear dynamic system.

As the age old saying goes, any system will deliver what it is designed for. Initiatives to mould a cadre of professionals who can adopt innovative approaches to resolve the challenges in the sector are lacking. The expression of human creativity to bring in the much needed revolutionary change is missing. This article tries to delve into some of the inherent flaws in the HRD scenario in the fisheries sector and tease out some pragmatic approach to revitalize the sector with creative interventions.

## Tracing supply and demand

The country has 19 Fisheries colleges (the one in Kerala recently became elevated as the first Fisheries University in the country) and one Deemed University with a pooled

# Manning Fisheries Sector - The Need For A Paradigm Shift

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*Definition of insanity is to do the same thing over and over again and expect different results*

– Rita Mae Brown



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intake of about 570 undergraduate, 250 postgraduate and 93 doctoral students per annum. The most number of colleges, including the lone Deemed University, are in Maharashtra. The break-up human capital output and the level of employment varies for each State. Currently limited opportunities exist for these UG and PG level specialists in Government departments, research institutions and to some extent in private sector. However, the supply continues taking demand for granted. Presenting output statistics without evaluating the utilization of the products keeps the system running for ever.

The recruitment in Government has come down drastically over the years due to various policies. The State fisheries departments are more or less welfare departments, especially in maritime states. The lack of sufficient openings for fisheries graduates in Government departments has stimulated adoption of restrictive practices to avoid entry of other graduates. We can witness a sort of in-breeding in the State funded departments, universities and institutions. When the cake is small and mouths many, there is little room for excellence and more scope for manipulations.

After the initial boom during seventies and eighties when industrial processing for exports assumed importance, the processing industry has seen a sort of consolidation where several small and medium units became extinct. The highly specialized Industrial Fisheries graduates and fish processing specialists from Mangalore Fisheries College, hot cakes at one point of time, became less in demand. This has happened over time without stimulating, unfortunately, not much response from the institutions.

The explosion in coastal aquaculture sector came as a boon in nineties to the mariculture specialists from CMFRI. The corporate enthusiasm in floating several public limited companies subsided soon after they found that the conventional production equations are not applicable to the aqua farming sector. After looting a lot of public money these corporate ventures vanished declaring farming is good for farmers. Fortunately the M.Sc. mariculture course was discontinued in later years and taken over by CIFE. However there are several universities offering courses on mariculture or coastal aquaculture the fate of the students are not clear.

Banks like NABARD had absorbed several PG specialists in their role of agricultural officers. Opportunities available in the Gulf States for specialists in aquaculture and processing were grabbed by many enterprising people especially from Kerala. Outside the Gulf region there were very little openings abroad as the competency requirements varied from that of PG in fisheries.

Research is an area where many of the students ended up after PG studies. However the limited slots available in colleges of fisheries made them seek opportunities in conventional universities. They have to compete with other postgraduates to get a slot and compromise on the topic of research which is possible in the institutions. Thanks to

a large number of research projects, and good package of fellowship, this is lucrative area where most PG students conveniently end up.

### Sustaining Institutions

The major challenge in the HRD for fisheries is in reinventing the relevance of the institutions and thereby sustaining their operations. The fisheries UG course under State Agricultural University System boasted prestigious position among the professional courses till early nineties. The IT boom caused a severe shift in the HRD scenario with cascading effect on every other sector including fisheries. Lack of opportunities in the fisheries coupled with the emerging opportunities in other sectors caused a severe stint in the quality and quantity of the intake at the UG level. More recently, the once toughly competed entrance examinations were done away with and admissions were reportedly done by walk-in interviews in some institutions. Obviously the takers are good for nothing else, and GIGO principle applies to the products.

The overall decay was enhanced by the restructuring career advancements and pay packages of the university faculty. The UGC packages offer some of the best pay structure in the country. The career advancement schemes have been modified to keep the number of steps few and duration of climbing short. This has facilitated youngsters to acquire the minimum requirements to reach the top. The passion and involvement in research and learning became a disadvantage. The fertile environment for real innovations and blooming of creativity became rare. With little efforts anyone can reach the top and stagnate there forever drawing the highest pay without commensurate responsibility. Often several senior faculty members ended up as experts in investment portfolio matters rather than in their field of specialization.

The funding is a major constraint in management of institutions. The State Governments expecting central support had major problems for expansion when the demand for course dwindles in the wake of the boom in other sectors. Restrictions on recruitment have resulted in several faculty positions in these institutions remaining vacant. In the absence of sufficient qualified



and dedicated faculty it is impossible to ensure quality outputs, even when the quality of input is taken for granted.

Several institutions were started with international support at a time when the fishery in the country was at subsistence level. Once the external support stopped, these entities were transformed as Government departments or became part of existing organizations. Slowly once the fishery became fully developed, especially in marine sector, these entities lost their relevance in their current shape. Unless conscious attempts are not made to make the organizations turn around, the natural death would become the destiny. Supporting an entity with public fund will prove difficult in coming years when organizations are required to become more accountable.

### Colors and Competency

Except the research and academic positions, most of the jobs in fishery sector do not fit to the blue or white collar aspirations of the young generations. There are few things like getting wet and smelling fish which cannot be avoided. Fishermen and fish workers are generally attached to the profession without qualifications while qualified fisheries graduates are invariably from non-fishermen communities. While the first group is committed to the job as the livelihood option, qualified fisheries graduates need not necessarily be committed to the profession. While there is a growing tendency to help fishermen to seek other jobs (to ease the pressure on exploitation), very little attempt is made to improve the community's capacity to take responsible positions in their own traditional field. Perhaps India may be the only country in the world where the highest fisheries technical positions are often occupied by people who do not eat fish.

The level of competency needed for the fisheries sector can be broadly categorized into three. Barring the unskilled laborers at the ground level and the ancillary sectors supporting fisheries there is a segment of manpower requiring limited special skills. Farm workers need limited skills and form the bulk of the manpower requirement in the aquaculture sector. In the capture fisheries the skilled operatives such as deck hands and fishing hands belongs to this

category. In the post-harvest sector the factory workers engaged in processing and packing also need limited skills. These group forms the bulk of the skilled human resources needed for the fisheries sector.

The second category is the middle level where higher technical competency is required. This includes those in the Government and private departments, involved in middle level management, extension, and development activities. The numbers in this segment is comparatively lesser than that in the first segment. Public investment on this qualified lot is significant. However, by removing the 'professional' tag they could fit in any field, provided the courses are tailored appropriately.

The third category comprises those who occupy the coveted positions and make harvests without getting their hands wet. The number of slots is fewer compared to the other two. These are highly qualified people occupying the research, academic and higher administrative positions in Government and to a limited extent in private sector. They are the products of huge investment of public funds. The oversupply of this category is of great concern. Of late there is an undue shift in priority toward the biotechnology, perhaps due to the invasive strategies of multinationals in the field. The result, we have more molecular taxonomists and not many conventional taxonomists.

### Moving forward

The people of the first and second categories need local orientation and are to be pruned to local flavor. In the ideal situation the initiatives must be at the State level and to some limited extent from the central level. Vocational schools are ideal for catering to the local needs provided the curriculum is tailor-made to suit the local requirements and practical exposure is incorporated as the core of the programme. Development of quality course material in local languages has been a major constraint. Training of teachers to deal with the specialized subject is another area where immediate attention is needed.

State run special training facilities are the next option. There are examples of institutions such as the one in Kakinada, Andhra Pradesh doing a good work. In other States like Maharashtra, the training facilities are long abandoned. A revival of the existing facilities and opening of new facilities are to be given priority. The facility of funding from NFDB for HRD has not been utilized properly by many of these States. Innovative thinking coupled with ability to rope-in the right partners would help the States to make best use of the available opportunities.

The Central initiatives like CIFNET, NIPHATT, etc. are doing their job since their inception but their services have skewed distribution in space. A reorientation of their programmes to cater to the regional requirements of the country, partnering with the State departments and other organizations to serve on need base would ensure delivery of their products uniformly.



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Fisheries colleges need to take periodic stocks of the demands and supply of the second and third categories of manpower and reorient their strategy to negotiate the supply demand gap. Revision of curriculum to improve the versatility of the students (perhaps by including more IT and quantitative components), offering wider range of specializations, etc. would help them sustain the relevance of the courses. The changing needs of the dynamic environment have to be perceived and the course adjusted to sustain the activities. Homogenization is not at all desirable.

University departments including fisheries universities need to invent and create their special niches by focusing on their special endowments relevant to their locality and differentiating from the conventional universities. Further creation of new universities has to be weighed properly in terms of the existing situations. Rather than Kerala, Maharashtra could have formed a Fisheries University if the three fisheries colleges can be brought under the same umbrella with resultant optimization of resource and funds. Still the vital question is what other benefit will it bring other than elevating a person to the post of VC?

No doubt that the country has made good progress in fish production. But is there any direct evidence that this happened due to the additional manpower generated in time and space. One can argue that absence of evidence cannot be taken as evidence of absence. However an objective analysis would not be harmful. This would enable us to stop fooling the public with irrelevant statistics.

Perhaps the total number of expert positions in a fishing nation like UK will be less than the annual HR output in the specialized field of fisheries in India. Oversupply of specialists is not a healthy option. Course needs to be discontinued when there is an oversupply. Institutions need not be created for solving the problem of unemployment which in turn has been caused by oversupply.

There is need for channeling public spending on the development of core capabilities in a more disbursed manner. Private investment in fisheries education is very unlikely as there would not be any free lunch in private sector. Special emphasis must be on raising the capabilities of the traditional communities from getting marginalized in their own field. The sector can rejoice in achievement when a person from traditional fisher community occupies the highest technical position in the country.

Courses need to be restructured and the flow adjusted and if necessary, temporary discontinued. Credit based systems with a wide range of topics overlapping the conventional graduate streams would increase the versatility while keeping the options for specialization. The narrow bounded view of the resource management paradigm has to shift towards broader transboundary approach. If resources are transboundary can the resource persons be otherwise? There is need to pool the faculty and resources in various states and share them to get the best benefits rather than cursing the vacant positions and lack of funds. Opportunity costs of unemployed specialists are very high. So is the opportunity cost of underutilized assets. A precautionary approach is needed in application of public funds in most useful ways. What is needed is a shift in paradigm of fisheries education.

#### Disclaimer:

The views expressed in this article are purely personal views of the author.

#### Further Reading

N K Thakur, R S Biradar and Bharat S Sontaki (Eds), 1997. Fisheries Education in India. Central Institute of Fisheries Education, Mumbai , 273 p.

Dilip Kumar and R S Biradar, 2011. Human resource development in fisheries, In: Handbook of Fisheries and Aquaculture, ICAR, New Delhi, pp: 920-831.

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I have no idea what to give my husband for his birthday. He's already got everything I need.

– Komsomolskaya Pravda