

Diversified fishing system – A way forward to fish-preneurship

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Fishing is an age old practice similar to hunting on which man was dependent since early times. Initially, bare hands or primitive tools such as sharp stones, bones, sharp wooden pieces etc were used to catch fish. Later, bow and arrow, harpoons, hooks, traps, nets etc were added to this list. Fishing though started as a means for subsistence, later it developed into a means for livelihood with fishers practising it singlehandedly using manual labour. Subsequently, two or more fishers formed groups and started acquiring boat, net and engine as assets and operated the units using their own fund or getting from sources outside. The advancement in technology made fishing into a big business with very large boats equipped with high powered engines for propulsion and for working gadgets necessary for operation of nets. Acoustic instruments for fish detection and for monitoring the nets under water were also adopted which resulted in more accurate and aimed fishing.

The old Chinese proverb says, 'give a man a fish, and you feed him for a day. teach a man to fish, and you feed him for a lifetime'. But from a means of 'feeding,' fishing reached to the level of 'big business' over time. But to consider fishing as an entrepreneurship, there is lot more to it. Unlike fishing businessman, a fish-preneur has to start a business based on his own idea or concept, has to be innovative and revolutionary, has to be people oriented and has to have time for family and personal life. An ideal fish-preneur must pursue his passion and be more keen on what he can do to change the world rather than on financial returns alone. Thus, for fish-preneurship one has to think of diversification in fishing and allied sectors rather than looking on conventional fishing. Following are few possible areas for fish-preneurship.

1. Recreational fishing

The scope of recreational fishing is not yet explored to its full extent in Indian fisheries. With the fast improving Indian economy and the changing life style of 'young India' there is ample scope for establishing recreational fishing to the status of tourism related enterprise. Since many of the places are getting urbanized in India, youngsters prefer to escape the city life on weekends for leisure activities. As the average life of Indian increased, the number of elderly people who are otherwise healthy also increased. For them

also, recreational fishing is the most attractive outdoor physical activity for amusement, outdoor recreation and for relaxation. It is in fact a very good leisure activity for the elderly as they have the patience of waiting to hook something on the fishing line thrown.

Recreational fishing is diverse in terms of the diverse catching implements used like spear, rod and line, pots or small nets. However, it mostly refers to angling, the activity of catching fish on hooks using rod and line or hand held line. The challenge of finding and catching the fish associated with angling makes it the most sought after form of recreational fishing. Thus often recreational fishing is termed as 'angling'.

India has about 40 indigenous and exotic fresh and saltwater fishes, which are some of the finest game fishes in the world with a vast stretch of fresh, brackish and marine waters. The country has about 50000 km of fresh water bodies viz., river, streams and lakes. All major rivers are easily accessible and are near major cities. In addition, India has 8000 km of coastal area inclusive of two beautiful groups of islands, Andaman and Nicobar islands and Lakshadweep on the west and east coasts. Besides, India has the advantage of having different climatic conditions across the country enabling fishing throughout the year. Many of the hot spots for angling are the best tourist destinations of the country. Since all major rivers are near to the cities it could be considered as a recreational/ game fishing. Despite having such advantages, Indian angling is still considered as an insignificant sector.

Angling groups: Therefore, a fish-preneur can make use of this opportunity by making angling groups combining tourism and angling. The group can have sub-groups facilitating volunteers for tourists, trainers for angling, equipment & gadgets for angling, data centre for providing all information and services related to angling. Data centre can facilitate to provide information related to getting licences, license fees, application forms, season for angling, food and accommodation etc. Fishers can be volunteers to the tourist groups and they can train the tourists. Angling groups could be a community based solution to fisheries utilization and also help to form responsible citizen groups against pollution and better utilization of resources in the inland sector. Arrangement for selling angled fishes in restaurants or setting up of homestays along the rivers would attract better responses. Polluted river stretches and lakes could get a new face through this.

Artificial Fly making units: In freshwater angling, enticing fishes is done through fly fishing in which an artificial "fly" is used to catch fish. Gadgets

for fly fishing can be made from natural materials or fluorescent ribbon tied over fish shaped wooden pieces etc. Fly making training can be given to the elderly fishermen / fisher women as an income generation and for self-sustenance. This can be marketed in places where hook and line or fly fishing is most popular.

2. Fish Folklore museum

A folklore museum which covers models/ prototypes/ real size traditional fishing implements, and records/ publications on fishing and related folk knowledge can be organized under this. The responsibility of running and maintenance of museum can be given to educated youth from fishermen community and students of fisheries colleges as volunteers for explaining about the museum to visitors. Along with this, organization of friendly talk programme with old aged, veteran fishers and fisheries students for knowledge sharing can be made on a regular basis.

Activities like mangrove farming, craft making using fish or shell fish wastes, short films and documentary preparation on fish/fishing etc. can be carried out under the aegis of the museum. State fisheries department authorities, college heads and heads of fishermen cooperatives or fishermen groups can monitor the working and the committee could be the apex body for making final decision on any activity. The entrepreneurial behaviour in students can be improved through the selling of craft items made by them, running the short films with nominal ticket charge etc.

3. Reservoir/aquaculture based eco-tourism

Reservoir and aquaculture farms can be developed into aqua-eco tourism centre. A tourist package in reservoir/aquaculture farm by arranging angling, forest trekking / hiking and reservoir/ from in coracle or paddle boats can be a promising initiative. In Kerala, Matsyafed and few private units are presently doing this successfully. Along with this, restaurants and homestays can be arranged for family get together and conduct of workshops etc.

School/college groups can be invited to the farm to enjoy and to learn about fish farming. In addition to fisheries development, this also opens avenues for tourism development in the area.

4. Fishing implements caretaking

The fishers are spending huge amount of their income for repairing boats, engines and nets due to regular wear and tear, accidents at sea, natural calamities and also due to attack by large fishes and dolphin (especially in ring seines and gillnets). Fishers often lose fishing days due to net damage

and they have to repair the implements themselves or get them repaired from outside. Unlike in earlier days, at present the young fishers are not very keen to repair the nets after fishing in a monthly basis. There is a scope for establishing a fishing implement maintenance/caretaking enterprise. If sufficient spares/ backup are made available, fishers will not lose time in getting these repairs done themselves. For the net mending and setting, fisher women SHGS or Cooperative societies can be engaged.

5. Fishing gear recycling facility

Fishing gear discarded in water as well as at land is a major ecological problem. Problem is severe in recent times, as very thin nylon monofilament is extensively used for gillnets, trammel nets, cast nets and lines. Since this material has a very short service life, netting has to be replaced very frequently. In ring seines and trawls also, regular replacement of netting is necessary. Cage aquaculture is another sector where netting is discarded/replaced. Facility can be set up near harbours and landing centres for collecting the discarded/unserviceable netting from the fishers as well as retrieving the nets already lost in the sea. The collected netting can be cleaned, sorted and recycled through linkage with plastic/textile manufacturers. This would give scope for involvement of fisherwomen and unemployed fisher youth and can be in close collaboration with Fishermen cooperative societies /SHGs. Recycling of fishing net would help in reducing the marine debris and improve the ecosystem.

6. Fishing bait /feed making

Setting up of fishing bait and fish feed making can be a potential initiative. Utilization of biological waste for making bait for line and trap fishing as well as 'feed' for fish culture by collecting discarded fish from landing sites and harbours and making of baits with discarded fish can be taken up as an enterprise. The fisherwomen cooperatives or SHGs can take up the mission which would help in reducing the waste level in the fisheries sector, and in utilizing the protein wasted and would be an income generating programme. Research institutes can provide training in this regard.

7. Data centre for boats fishing at sea

A data centre for 'fishing boats at sea' can be another initiative for a fish-preneur. A facility to monitor fishing craft registration, operation and maintenance can be set up with the help of educated and unemployed fisher youth. This can be set up in all harbours and landing centres in line with the Govt approved 'Akshaya Kendras'. It can have two wings, one for mechanised fishing craft and another for motorised and non-motorised fishing crafts. The number of boats going for fishing, names and details of crew onboard, time of leaving the harbour, time of return etc. can be

monitored by this unit and records can be maintained. This will give a correct data on the 'fishers at sea at any point of time' which would avoid problems faced during 2017 'Ockhi cyclone' where there was no correct data on the missing fishermen.

The centre can have a subsidiary unit to advise fishers on (i) optimum engine size for each length class of vessel; (ii) standardized lifesaving equipment to be available onboard, (iii) optimum maintenance schedule for fishing boats etc. Help of experts from research Institutes can be availed.

8. Square mesh net making unit

Responsible fishing without catching juveniles can be accomplished through simple interventions such as 'square mesh netting' in fishing gears. Diamond mesh can be made into square mesh by simple cutting and alteration. Fisherwomen and elderly fishermen can form groups to set up units for making square mesh nets.

9. Net assembling units

At present in India, fishing nets are designed and assembled by individual experts available in local areas. Only in big establishments like Garware Wall Ropes net assembling facility is available which is mostly for export purpose. In each major fishing area, net assembling units can be initiated where fishers can place orders for nets as per their specification and get assembled or tailor-made nets. Presently, fishers themselves directly purchase the netting and accessories and engage leaders for assembling it. So, there is scope for establishing fish net assembling units in all major fishing centres where purchase of raw material, designing and assembling of nets can be taken up.

Conclusion

There are several areas in which a fish preneurship can be started. A fish preneur should learn and imbibe several qualities required for him to become a successive entrepreneur from fishermen who have some unique qualities. Consistency (though not assured of a catch, fisherman goes for fishing regularly), meticulous utilization of assets and resources (like a fisherman repairing and maintaining his boat and net meticulously), community oriented activities, teamwork (fishing is essentially a teamwork), and willingness to change are such qualities required for a good fish-preneur.