



REVIEW OF RESEARCH

ISSN: 2249-894X

IMPACT FACTOR : 5.7631(UIF)

STUDIES ON PRESENT STATUS OF MARINE FISHERIES IN DEVGAD TEHSIL

Sukhada M. Jambale

Department of Zoology, S. H. Kelkar College, Devgad [Sindhudurg].



ABSTRACT:-

Devgad tehsil is famous for fresh and delicious sea food. It is also well known for Alphonso mangoes. Fishing and agriculture are important occupations here. Inshore and offshore fishing practices are common in Devgad region. Fishing trends are gradually changing with advancement in mechanism of crafts, gears and preservation techniques. So as to meet the increasing demands of the population, advance technologies are used widely by common fishers, though they are not affordable on small scale. Due to increase in number of mechanized vessels and gears fish resources are being overexploited leading to gradual decline in fish catch day by day. During ban period in Maharashtra, fishers from other states encroach the fishing grounds of Devgad tehsil. Illegal and unlimited license policies are responsible for overall decline in catch of individual fishermen. Besides these, nearby market of Goa state has prohibited import of fishes from Sindhudurg district. Rise in price of diesel is another problem responsible for reducing profit margin of fishers. Even though mechanization has simplified fishing practices, to some extent it is the root cause for destruction of fish crop. Modern techniques such as fish finder, is a powerful device that can detect type of fish shoals but its adverse effect is decline in the population of economically important fish species.

KEY WORDS: Marine fisheries, Devgad, Present status, Mechanization.

A] INTRODUCTION:

Devgad is a natural port situated on the western coast of Maharashtra giving shelter to thousands of crafts during natural calamities. Fishing is main source of income for several families over the generations. Fish and rice are the main food items of daily diet. From last two decades traditional fishery is being replaced by of mechanized vessels. Mechanization of craft and gears accompanied by advance fishing techniques has resulted in increase in fish catch. This increase in fish catch irrespective of fish production rate gradually leads to exploitation of natural resources beyond power of regeneration. Cold storage facilities with vessels itself has increased the duration of fishing. The main landing centers in Devgad tehsil are Devgad, Munage, Morve, Vijaydurg, Kunkeshwar, Tambaldeg, Mithmumbhari and Taramumbhari. Silver pomfret, black pomfret, mackerel, seer fish, tuna, sharks, lactarius, sciaena, sillago, ribbon fish, cat fish, sepia and varieties of crustaceans like lobsters, prawns and crabs etc are major landings here. Besides oestichthyes, chondrichthyes, arthropods and molluscan animals are net. Harvests are marketed at local markets as well as to Kolhapur, Belgium, Sangali, Pune, etc. Generally non-mechanized crafts like pagar, fiber boat and mechanized vessels such as trawlers and launches are used. Current research work deals with the present

status of marine fisheries in Devgad tehsil with respect to impact of mechanization and challenges faced by the fisherflok.

B] MATERIAL AND METHOD:

The present work was carried out along the coastal belt of Devgad tehsil principally focusing the landing centers. Data was collected from fishermen of different villages. The data was collected by using a properly set open ended questionnaire to avoid any type of confusions. Also data was collected from Taramumbari Co-operative fishermen Society and Devdurg fishermen Co-operative Society Ltd. Devgad. During study period open interviews and discussions were carried out with craft owners, crew members and middle men by using understandable questions. Experiences of respondents were also shared through informal discussions. Information was collected from respondents who were interested and as per their availability. These interactions helped to get information required for present study. Additional information was collected by frequently visiting the landing centers and local markets.

C] RESULT AND DISCUSSION:

1. Ban period:

Ban period in Maharashtra for fishing activities is from 1st June to 15th August every year. Generally breeding of fish coincides with this causing replenishment of fish lost caused throughout the year. Ban period for Goa state that is adjacent to Sindhudurg district, is from 1st June to 15th July. This causes invasion of vessels from Goa state during ban period of Maharashtra, as their ban period is short as compared with Maharashtra. These vessels net the fishes during spawning period limiting their replenishment by breeding. Being juvenile catch they discard the same in water bodies causing marine pollution. Such fishing ban period in different states such as Karnataka, Kerala, Gujarat and Goa (Jambale 2018).

2. Encroachment:

The pivotal problem in the face of marine fisheries of Maharashtra is depletion of resources may be because of illegal presence of foreign vessels from different areas that has been crop up pressure on coast line (Wasave 2015). This main reason for conflict between local fishers and invaders with mechanized vessels. These vessels are supported by powerful engine (approximately 350 hp) and therefore high speed with cold storage and advance techniques for locating specific fish shoals. Mechanization facilitates fishers to cover large fishing grounds within shorter period, that result increase in fishing hours and storage facility.

3. Modern techniques in fishing

Now a days nets are operated partially or completely with help of machines. Due to this labour work and time consumed is reduced, but at same time bulk catch is obtained. A device known as fish finder is recently installed by some fishermen so as to locate type of fish school at a particular site. But it has adverse effect on specific fish catch so as to reduce its population. It has been observed in last five years that fish with high export value such as ribbon fish catch was found to be decreased.

4. Uncertainty in catch:

Price and maintenance cost of mechanized vessels is high. Expenditure on crew members, nets and fuel is unaffordable due to uncertainty in catch. Many times net profit earned by fishing is less, sometimes not even meet consumption on it. Hence the actual fisher has to compromise with all the fluctuations that occur during auctions of the catch, its preservation, loss during transportation and the final rate that is obtained in the market which is decided by the agents by using still the same orthodox method. Hence even after a good catch, the fisher is never guaranteed by a satisfactory price in the market (Jambale- 2018).

5. Fish import ban by Goa State:

Recently Goa State government had banned the import of fish catch from Sindhudurg district. Reason for ban was given by the government as lack of appropriate vehicles with cold storage facilities and use of chemical preservatives such as formalin so as to increase shelf life of the catch.

6. Increase in number of crafts:

In last decade, there is a significant rise in the number of crafts everywhere. Devgad is also not an exception to that. Fishing business seems to be more profitable as compared to other businesses in the tehsil. Increase in the number of crafts in Devgad tehsil is significant and has led to increase in the competition in the business and relevant impacts. It is never possible that all the crafts going for fishing would get a good catch at the same time and every time.

7. Decline in fish resources:

Due to rise in the number of crafts, advanced mechanization of the whole process, illegal hunting during ban period of monsoon, encroachment by outsiders and deep impact of global climatic change; it has been estimated that there is a considerable decline in the natural fish resources. Specially it has been observed that due to small mesh size, young ones of fish in the very early developmental stage and even spawns of fish eggs are captured on a large scale. This obviously prevents the possibility of existence of the next generation.

8. Illegal fishing:

As per the Marine Fisheries Act 1980, operation of trawl net by mechanized fishing vessels is prohibited from the seashore to 5 fathoms and 10 fathoms depth zone in specified areas. Usually fishers operate in these restricted areas even with minipurse-seine. Use of LED for fishing operation. Illegal mesh size that is 20-25 mm is generally practiced, even though the legal permitted mesh size is 40mm and above. This results in catch of frylings and leading to unsustainable fishing. Installation of light on vessels is again costly that requires above 3 lakhs expenditure which is not affordable for common fishermen. Even though use of purse-seine is banned, purse seine and mini purse seine are used. As the bottom is eroded by purse seine operation benthic resources are over exploited. Only traditional fishers are allowed for fishing operation during night period. Light fishing and use of trawler are common practices during night hours.

9. Oil spills:

The leakage of oil especially from the fishing boats and due to some other similar reasons causes spread of oil on the sea surface. As an impact of water pollution, it leads to adverse impact on the marine life including fishes. Specially oil spills disturb the food web in the habitat along with rise in BOD.

D] CONCLUSION:

As a matter of fact, fishery business in Devgad tehsil is being confronted with a number of socio-economic as well as environmental problems. The concerned problems cannot be solved in a short period of time as they are involving various layers of the society right from the actual crews on the craft to common consumers in different places. Several socio-economic and political issues are also associated with the same. But apart from all this, it is the need of time that these threats to the fishing business must be resolved by some remedies. In addition to all these matters, it is also necessary to see how the traditional fishing gets restored to major extent to reduce the threats of over exploitation, significant decline in the catch as well as overall drought of the catch.

It has been also estimated that there is no any perfect planning or policy laid down by the local administration, fishermen societies or even state government. Hence at present, it is the urge that some fix legal as well as operative policies should be laid down which can make the business smooth and sound.

Especially, fishing in the ban period must be prohibited by law suggesting a strong punishment for those who overrule the same. Secondly, encroachment of the fishing crafts from other states or even districts should also be prevented strongly so as to sustain the local business. Subsidies on the Government level need to be given so that the fishermen or their societies could manage to buy their own transport vehicles with deep freeze facility. Devgad fishermen don't use formalin or any other chemical to raise the shelf life of the catch. But the only deficit is the lack of proper transport facility. Proper and timely maintenance of the crafts is also very essential to avoid oil spills on the water so as to avoid water pollution and consequent impacts on ecosystem.

Obviously if these matters are resolved, the other aspects explained under discussion will be resolved or decreased in their intensities.

E] References:

1. Jisha John (2014), Technological Changes in Marine Fishing and Livelihood Threats of Fisher Folk. *Journal of Studies in Dynamics and Change*, 1(1), 23-28.
2. E.G. SILAS (2003), History and development of fisheries research in India. *Journal. Bombay Natural History Society* 100 (2&3).
3. Shyam. S. Salim (2012), Indian Seafood industry and post WTO – A Policy Outlook. *Manual on World Trade Agreements and Indian Fisheries Paradigms: A Policy Outlook*.
4. WasaveSuhas, Arpita Sharma, Sangita Wasave and Saiprasad Sawant (2015), Conflicts issues in fisheries and their management measures in state of Maharashtra, India. A peer- reviewed proceeding of International Conference on Ethical prospects: Economy, society and Environment, ISBN- 978-93-830-46-46-1, 173-180.
5. Shweta Valanju and Mangesh Jamble (2017), Significant threats to fisheries in Devgad tehsil, Dist.- Sindhudurg, Proceeding of International Conference on emerging issues in Commerce, management, finance, humanities and extension work ISBN- 978-81-933083-7-0, 254-249.
6. JambaleSukhada M. (2018), A case study on socio-economic problems faced by local fishermen in Devgad Tehsil of Sindhudurg District [M. S.]