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Special Issue On Role of Science in Conservation of Environment and Biodiversity

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Traditional Methods of Fishing In Kolhapur District, Maharashtra, India

Rahul S. Kamble*, Arjun D. Kumbhar*, Pradnya S. Mitake* and Sagar A. Vhanalakar**

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Fishing and hunting are the oldest activity of human both as a source of food and for recreation. A study was carried out to examine the effect of local fishery on environment and protection of traditional fishing practices. A total 9 Abstract: traditional fishing methods were recorded during study periods.

Key Words: Traditional Fishing Methods, Kolhapur

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Fishing and hunting are the oldest activity of human both as a source of food and for recreation. The Introduction: food problem for an overgrowing mass of humidity had never been so acute in the part as in recent years due alarming storage in food production underdeveloped countries of the world like India.

The magnitude of this problem can be viewed from the fact that every minute 3,000 human being are borne. In 1960, 50 million people are added to the world population. This is over 3 billion at present. It has doubled in last sixty year and 39 to double again in less than forty years. The people of Asia and Africa comprising nearly two-third of the world population and sharing about one-third of the total world food output are still underfed, but never in the history of our civilization, have we been able to produce enough food to provide all with the minimum no. of 2,750 calories required daily for the average human being. The fishery products today supply measure 10 calories a day to the average world citizen.

It may be significant to note that the average per capita production by fisherman is much more than an agriculturist. We will see about world fishery production. The total world fish production has expanded from 3306 million metric tons in 1957 to 52.4 million metric tons in 1965 and is likely to reach 100 million metric tons by the year 2000 A.D. (Fishing Gear Technology By K.B.U (1996)

Dr Francis Day, the First Inspector General of Fisheries in India, stated: " Our fishermen are a very miserable lot of people and extremely poor." This view is no longer tenable as Koli community has certainly advanced a great deal although it is not up to the mark (Patil, 1984).

Aims And Objectives:

- To encourage the protection of traditional fishing practices.
- To find out the local resources of fishery and its traditional tools for local fishery.
- To find the effect of local fishery on environment.
- To find the economy of fishery as a traditional earning source and its impact on environment.

Kolhapur district was selected as a study area for tradinational fishery of the state of Maharashtra. 4 Materials And Methods: Talukas i.e. Karveer, Radhanagri, Kagal, Bhudhargaud was selected for the study. The survey was made from Aug. 2016 to Jan 2017 and the data was collected was represented in a tabular form. The data obtained were analyzed. For the acceptance or rejection of the data the interviews were conducted to find out the impact of local fishery as a traditional method for the self and globe as a whole. The Study was carrying out in 15 villages (Murgud, Gargothi, Saravade, Radhanagri, Undarwadi, Akurde, Shengaov, Karadwadi, Piral, Savarde, Nandavad, Sarnobatwadi, Bidri, Boravade, Phijewade). Altogether 45 fishermen were interviewed to collect the fishing methods information. The traditional fishing method and relevant information were collected from the fisherman's by conducting the personal interviews and group discussions. The information collected from the interview was put in the form of Photos, tabular form etc.

Fishing Methods: The fishing methods were used by the fisherman's in Kolhapur district for fishing are:

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- 1. Hooks and Lines: In this method, rod is tied with indigenous fiber or cotton thread or nylon twine and is fixed lo a hook. The bait used to attract the fish or may be earthworm, nymph of beetles, smaller fish or small frogs, or artificial bait made up of rice bran or wheat flour. The line may be indigenous fiber or cotton thread or nylon threaded. This line may be pole (pole and line), which is generally bamboo 01 other locally available twinge. If there is no pole then il is called hand line. A sinker or float may or may not be there are many types of hooks lines like short hand line, long hand line, pole and fine; etc. The method is generally practiced as a leisure time hobby by most local individual most of the rivers.
- 2. Smaller Dams: This method is mostly used when there is shallow water with a slow flow. Usually fisherman's use to construct a small size obstacle in the range of 20 to 30 m long an or a smaller dam in the water These small dams were made up of clay and stones. After constructing the small dams, water is removed via a small tunnel. At the mouth of tunnel a small size net with 1cm mesh being fixed and by removing the water, fishes were caught by simple handpicking method. A team of 5 to 6 peoples are required for the job. This type of fishing is usually done in between September to January.
- Using Juveniles: This method is used since ancient period. This is an old method in Kolhapur District. A knife is tied very tightly at one end of a 5 to 6 feet long stick. This method is often used at night, during night time batteries and lanterns are being used as a source of light, for such type of fishing operation of the above type generally 2-3 peoples are required.
- Bamboe Sticks: The bamboo used should be hollow and closed at one end and, one end should be open. As well it should not have length more than 2-3 feet. Usually 12-15 bamboo's are assembled in the water current like breeze or river. After 2-3 days fishing is done.
- 5. Bamboo Basket: The basket is made up of bamboo. The basket is narrow at both ends and broad at its middle portion. This looks like a rat cage. Mouth of the bamboo basket is looks like a tube which is open at both the ends. One end is found to be narrow as compared with the opposite end. It is in running water for about 5-6 hours to catch the fishes.
- O Method: A Smaller dams were built in water stream, below of which hollow bamboo were arranged to remove water. At the other end of dam, the falling water from that of the hallow bamboos is allowed to fall on the mesh network. So, that small fishes those passed from the hallow bamboos can be caught. 5-6 people are required for this type of fishing. (Plate rio.3)
- 7. Sari: This method is used in swallow water bodies. One edge of the sari is use to catch the fishes where as other edge of the sari gets entangle with the body. Minimum of 2 women are required for this kind of
- Bow and Arrow: An Arrow is tied with a long thin thread, and then arrow is thrown to killed the fishes,
- 9. Poisoning; This is a common method for fishing. This method is very rear in the Kolhapur region. The poison were used may be of plant derivatives or synthetic chemicals. The fishes were killed by these operations are said to be fit for human consumption.

Methods	Area off operation	Material Used	Manpower Required in no	Season	Bait used	Species Caught
Hooks and lines	p 1 Sills thread	one	Throughout The year	Earthwonn, nymph of the beetles,rice bran or wheat flour, smaller fish	IMC, Wallago or lanchi, bata and Fresh water gobi etc	
Constructed by Smaller Dams	Canal and River	Stones, Mud and twigs	6 to 8	Winter and Summer	No used	IMC, orange fin fish, Rita Bata,Fresh watergobi, Greatsnake headed, Dwarf snake headed etc

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Using Javelin	Canal, River and streams	Javelin and Lalten	1 to 2	Throughout The year	No used	Wallago or Lanchi, Bata, Fresh water Gobi, Great snake headed, Dwarf snake headed etc
Bambo o Sticks	Canal, River and streams	Bamboo Sticks	1 to 2	Winter and summer	Earthwor m	Great snake headed, Dwarf snake headed etc
Bambo o Basket	Streams And waterfall	Bamboo Basket	1 to 2	Monsoon and winter	No used	IMC, orange fin fish, Rita ghagra Bata
Q method	Steams Canal And River	Stones, Mud, twig And Bamboo	5 to 6	Monsoon and winter	No used	IMC, Wallago or lanchi, Bata, Fresh water gobi, orange fin fish Rita ghagra
ari	Steams Canal And River,	Sari	One (Wome n)	Winter and summer	No used	Dwarf snake headed, Wallago or lanchi, Bata, Fresh water Gobi
Bow and Arrow	Steams Canal And River	Bow and Arrow	One	Throughout The year	No used	Orange fin fish, Rita ghagra Bala
Poisoning	Steams Canal And River	Plant derivatives or synthetic chemicals	2 to 3	Winter and summer	No used	IMC, Wallago or lanchi, Bata, Fresh water Gobi

Conclusion: From the above data represented in the subsequent project work showed some interesting inferences.

The traditional methods of fishing with respect to fresh water fishery showed there is limited number of fishes found in Kolhapur District, are Indian Major Carps, Orange fin fish, Rita ghagra, Labeo bata, Fresh water gobi, Great snake headed. Dwarf snake headed. Among all those fisheries there are limited encashment areas and also have limited earnings fir these fishery. It was also observed that while fishing the quality of water gets disturbed. It was also observed that after fishing the fisherman's were least bother about the environmental desecration.

So in view of the above certain major stapes should he undertaken to protect the environmental desecration. As well as it is very important to educate the fisherman's so that they were aware about the environmental desecration. Training programs should be arranged so that the fisherman's would get the technical knowledge of fishing to improve the earnings.

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