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**RG Makwana**PG student, Extension  
Education, NMCA, NAU,  
Gujarat, India**MR Bhatt**Associate Professor, Department  
of Extension Education, College  
of Agriculture, NAU, Bharuch,  
Gujarat, India**KL Chaudhary**Assistant professor of Extension  
Education, N.M. College of  
Agriculture, NAU, Navsari,  
Gujarat, India**NN Tale**Assistant professor, college of  
Agriculture, Karad,  
Maharashtra, India**Corresponding Author:****RG Makwana**PG student, Extension  
Education, NMCA, NAU,  
Gujarat, India

## Training needs of inland fish farmers in Navsari district of Gujarat

**RG Makwana, MR Bhatt, KL Chaudhary and NN Tale**

**Abstract**

Inland fisheries and aquaculture is an important sector of food production providing nutritional security, beside livelihood support and gainful employment to more than 14 million people, and contributing to agricultural exports. Fisheries in India are a very important economic activity and a flourishing sector with varied resources and potentials. Aquaculture sector plays an important role in national economy through foreign exchanges earnings, generation of employment and providing nutritional security besides augmenting food supply. Training need can be define as the gap between the actual performance and the desired performance of the inland fish farmers. The aforementioned study was conducted in Navsari district of South Gujarat. The data was collected from 120 respondents by following personal interview method and using structured interview schedule. After the analysis of the collected data it was observed that, majority (79.17 percent) of respondents had needs medium to high level of training and majority (2.77 mean score) of respondents needs training in insect and disease control in inland aquaculture.

**Keywords:** training needs, inland fish farmers

**Introduction**

Government of India is operating a high level National Skill Development Mission and a great potential exists with aquaculture industry which requires huge manpower at different levels. If appropriate skill development programs are implemented in this sector, it will be a great boon for the aquaculture industry. India has attained the second largest fish producing and second largest aquaculture nation in the world after China. More than 50 types of fish and shellfish products are being exported to 75 countries around the world.

The total fish production during 2018-19 was 13.70 million metric tonnes, of which nearly 65.00 per cent was from inland sector, about 50.00 per cent of the total production is from culture fisheries, and 06.50 per cent of the global fish production. Fish and fish products have presently emerged as the largest group in agricultural exports from India, with 13.33 lakh tonnes in term of quantity and Rs. 45,106.89 crore in value. This accounts for around 10.00 per cent of the total exports and nearly 20.00 per cent of the agricultural exports, and contribute to about 0.91 per cent of the GDP of the Country. So, the present study was carried out to find out the Training needs of inland fish farmers in Navsari district of Gujarat with following objectives.

**Objectives**

1. To assess the training needs of inland fish farmers in inland fish farming
2. To assess the training needs of inland fish farmers in sub –main area

**Methodology**

The study was conducted in Navsari district of South Gujarat region during the year 2019-2020. In Navsari district, there are six talukas viz., Navsari, Gandevi, Chikhli, Jalalpore, Vandsa and Khergam. Among them 4 talukas were selected purposively, Gandevi, Jalalpore, Navsari and Chikhli. 5 villages were selected from each talukas because of availability of the respondents. Total 20 villages were selected purposively for the study. From each 20 villages 6 respondents were selected randomly.

Total 120 respondents were selected randomly An Ex-post-facto research design was used for the study. In light of the objectives, the interview schedules were prepared and respondents were interviewed at their home, office and farm. The respondents were grouped into three categories based on mean and standard deviation.

**Results and discussion****1. To assess the training needs of inland fish farmers in inland fish farming****Table 1:** Distribution of respondents on the basis of their training needs (n=120)

| Sr. No | Categories                                      | Frequency | Percentage |
|--------|---|-----------|------------|
| 1      | Low level of training needs (up to 52.63)       | 25        | 20.83      |
| 2      | Medium level of training needs (52.64 to 77.29) | 61        | 50.83      |
| 3      | High level of training needs (above 77.29)      | 34        | 28.34      |
|        | Total   | 120       | 100.00     |

Mean=64.96

Standard deviation =12.33

Table 1 indicate that majority (79.17 per cent) of respondents had need medium to high level of training, followed by 20.83 per cent of respondents had need low level training.

**Table 2:** Distribution of respondent according to their training needs in major areas (n=120)

| Sr. No | Main areas of training                                    | Mean | Rank |
|--------|---|------|------|
| 1      | Preparation of pond                                       | 1.88 | VII  |
| 2      | Construction of Pond                                      | 2.15 | V    |
| 3      | Selection of quality seed and species and stoking density | 2.57 | II   |
| 4      | Water quality management                                  | 2.55 | III  |
| 5      | Feed and fertilizer management                            | 2.17 | IV   |
| 6      | Insect and Disease control                                | 2.77 | I    |
| 7      | Harvesting, preservation and marketing of fish products   | 2.14 | VI   |

The data present in table 2 indicate that majority of inland fish farmers were found to had the needs of high level training in 'Insect and disease management', which receive 1<sup>st</sup> rank and its indicating its mean score of 2.77 followed by 'Selection of

quality seed and species and stoking density' receive 2<sup>nd</sup> rank and mean score 2.57, 'Water quality management' were receive 3<sup>rd</sup> rank with mean score 2.55.

**2. To assess the training needs of inland fish farmers in sub –main area****Table 3:** Distribution of respondent according to their training needs in sub-main areas (n=120)

| Sr. No | Preparation of Pond                                     | Mean score | Rank |
|--------|---|------------|------|
| 1      | Weed management in pond                                 | 1.81       | IV   |
| 2      | Lime and fertilizer management in pond                  | 1.86       | II   |
| 3      | System of water depth management                        | 2.00       | I    |
| 4      | Irrigation of drainage management                       | 1.82       | III  |
| Sr. No | Construction of pond                                    |            |      |
| 1      | Depth of pond   | 2.12       | IV   |
| 2      | Kind of soil  | 2.20       | I    |
| 3      | Slop of pond  | 2.16       | II   |
| 4      | Shape of pond   | 2.14       | III  |
| Sr. No | Selection of quality seed species & stoking density     |            |      |
| 1      | Breed selection   | 2.56       | II   |
| 2      | Selection of disease free seed and species              | 2.61       | I    |
| 3      | Identification of fish species                          | 2.52       | IV   |
| 4      | Stoking density of fish species                         | 2.54       | III  |
| Sr. No | Water quality management                                |            |      |
| 1      | pH and oxygen level measurement                         | 2.62       | I    |
| 2      | Measurement of optimum level of water temperature       | 2.55       | II   |
| 3      | Way of water exchange                                   | 2.50       | III  |
| Sr. No | Feed and fertilizer management                          |            |      |
| 1      | Way of feed application                                 | 2.14       | III  |
| 2      | Proper time of feed application                         | 2.13       | IV   |
| 3      | Doses of fertilizer application                         | 2.25       | I    |
| 4      | Kinds of fertilizers                                    | 2.19       | II   |
| Sr. No | Insect and Disease management                           |            |      |
| 1      | Identification of disease                               | 2.70       | IV   |
| 2      | Preventive measurement of disease                       | 2.78       | II   |
| 3      | Way of disease control                                  | 2.85       | I    |
| 4      | Way of using insecticides                               | 2.76       | III  |
| Sr. No | Harvesting, preservation and marketing of fish products |            |      |
| 1      | Time of harvesting                                      | 2.10       | III  |
| 2      | Method of harvesting                                    | 2.12       | IV   |
| 3      | Time of preservation                                    | 2.18       | II   |
| 4      | Techniques of preservation                              | 2.22       | I    |
| 5      | Way of early marketing system                           | 2.08       | V    |

Table 3 indicate that in preparation of pond majority (2.00 mean score) of inland fish farmers needs training on system of water depth management, in construction of pond majority (2.20 mean score) of inland fish farmers needs training on kind of soil, in selection of quality seed species & stoking density majority (2.61 mean score) of inland fish farmers needs training on selection of disease free seed and species, in water quality management majority (2.62 mean score) of inland fish farmers needs training on pH and oxygen level measurement, in feed and fertilizer management (2.25 mean score) majority of inland fish farmers needs training on doses of fertilizer application, in insect and disease management majority (2.85 mean score) of inland fish farmers needs training on way of disease control, in harvesting, preservation and marketing of fish products majority (2.22 mean score) of inland fish farmers needs training on techniques of preservation.

### Conclusion

Majority (79.17 per cent) of inland fish farmers had needs medium to high level of training, Majority (2.77 mean score) of respondents needs training in insect and disease control, in preparation of pond majority (02.00 mean score) of respondents needs training on system of water depth management, in construction of pond majority (2.20 mean score) of respondents needs training on kind of soil, in selection of quality seed species & stoking density majority (2.61 mean score) of respondents needs training on selection of disease free seed and species, in water quality management majority (2.62 mean score) of respondents needs training on pH and oxygen level measurement, in feed and fertilizer management (2.25 mean score) majority of respondents needs training on doses of fertilizer application, in insect and disease management majority (2.85 mean score) of respondents needs training on way of disease control, in harvesting, preservation and marketing of fish products majority (2.22 mean score) of respondents needs training on techniques of preservation.

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