

SUSTAINABLE LIVELIHOOD OF TRIBAL POPULATION OF GADCHIROLI DISTRICT THROUGH INTERVENTION OF SCIENTIFIC FISHERIES TECHNOLOGY

MONITORING AND EVALUATION REPORT
(INTERNAL SOCIAL AUDIT)



Science & Technology Resource Centre
Gondwana University, Gadchiroli

Monitoring & Evaluation Report-Aquaculture project

Background

Science and Technology Resource Centre, Gondwana University Gadchiroli, and MAFSU Nagpur have jointly implemented a project based on fishery in the Gadchiroli district. This Monitoring and Evaluation (M&E) report presents a summary and analysis of results accomplished in the project status.

The report emphasizes the findings and conclusions that have been compiled from monitoring activities through field visits and structured interviews. The monitoring and evaluation program is designed to serve as an important link between Plan implementation and on-the-ground activities. Evaluations in this report serve as a facilitator to any needed changes within the Plan or its implementation.

The M&E program determines and informs the Area Supervisor on whether

- Objectives are being achieved;
- Design Criteria are being followed
- Implementation effects are occurring as predicted

Context

Participatory community monitoring and evaluation are extremely important for learning about the achievement/deviation from original concerns and problems faced by local development projects/programs being implemented so that corrective measures can be taken in time. Evaluation is often carried out by donor agencies or policymakers and helps in assessing whether the project has brought benefits to those for whom it was intended.

An evaluator is expected to examine

- Whether it was right to have invested resources in the project in the context of competing needs;
- whether the underlying assumptions and design were right;
- whether progress was made towards planning changes, and if not, why; and
- Unplanned changes that may have occurred.

Monitoring ensures that

- Inputs are given in time
- Works plans are followed closely
- Adjustments can be made and corrective action was taken as and when necessary
- People who need to know are kept informed
- Constraints and bottlenecks are found
- Resources are used efficiently

STRC-GUG initiated a Social audit of projects under different verticals by initiated through formulating vertical-specific and project-specific M & E frameworks. Meanwhile formulating a sustainability dimensions specific indicators and questionnaire and interaction with the beneficiaries on the field to conduct the M & E (Social Audit) exercise. Were responses of the respondents were documented.

The objective of the project

1. To carry out scientific fish culture in the selected ponds/ ponds/water bodies by the adoption of technological culture practices such as stocking density, feed management, size at harvest
2. To demonstrate diversified aquaculture practice – the culture of high yielding fish species in farm ponds (minimum one-acre size), rearing of IMC - Indian Major Carp seed up to fingerling size (below 2000 m² size)

3. To improve the traditional culture practices by conducting a training program for beneficiaries /Fisherman Co-operative society members.
4. To popularize fish products through training of women self-help groups.

Project Name

Sustainable Livelihood of Tribal Population of Gadchiroli district through the intervention of scientific fisheries technology

Geography

Kurkheda, Korachi and Armori

Sample size: - 20

Domain: - Fisher Farmer

Scope

1. To evaluate the achievements, performance, and functioning of the projects.
2. To understand the current concerns and needs of the community
3. To check the social impact of the project.

Methodology

- involves local beneficiaries in measuring, recording, collecting, processing, and communicating information to assist local development project
- Accessed data from both primary and secondary sources, field visits, in-depth interviews, and semi-structured interviews.
- For this exercise, the beneficiaries in the village were interviewed, questions were asked and their answers were recorded.
- A mandate of facilitating and accelerating the socio-economic development of the community for better planning, better resource mobilization. So that objectives based indicators are derived.

Methods of collecting information at community level

- Group discussion among people.
- Direct observation of site activities.
- Interviewing individuals.

Tools

- Resource map
- Primary data
- SSI (Semi-structured interview)

Collect data in

- Questionnaire
- Local language
- Regular interval (monthly, quarterly, half-yearly or yearly, etc.)

The following factors are considered while formulating the framework and questionnaire.

- **Improved quality of life for the community:** - Better water resources, health facilities, availability of natural resources, etc.
- **Participation:**- Level of commitment, Influence on each other, Participation with voice and vote
- **Awareness:** - Experience in that specific activity, Training/workshop attained.
- **Adaptability:**- Acceptance of improved practices, External input dependence
- **Economical:**- Income generation through the activity, Availability of market (freedom to sale), Yield

- **Institutional:** - Reliance of subsidies, Level of conflict in the community, level of trust in public institutions.
- **Environmental:** - Availability of resources, Conservation practices, surrounding natural biodiversity.

The preliminary framework of the social audit was discussed with Dr Dhanaraj Patil, Sociology Department, Gondwana University and set the indicators according to their guidance. The framework was tested on the field for the monitoring and evaluation of STRC ongoing projects. The following correspondence of STRC-MAFSU project beneficiaries conducted M & E exercise in which the conclusion of the exercise is maintained.

The followings are indicators used in the M and E (Social Audit) of this project.

Objective Based Framework/ Indicators

Indicator 1

Average adoption rate of scientific fish culture practices

Table 1: Average adoption rate of scientific fish culture practices

Sr No	Scientific practices / objective based activities or practices
1	Stocking Density
2	Feed management
3	Size at Harvest
4	High yielding fish species
5	Rearing of Indian Major Carp seed
6	Traditional culture practices (locally designed practices)
7	Popularize fish products (fish pickle) Need to define " <i>Popularization of fish products</i> " <i>Marketing: Sale, Demand, Strategy, etc ? , Awareness?, Production ? , Supply Chain ?</i>
8	Participation of Women Self Help Groups for Popularize fish products

Indicator 2

Average percentage improvement in tradition culture practice

Table 2: Average percentage improvement in traditional culture practices

Sr No	Scientific practices / objective based activities or practices
1	Changed the approach for fish species stocking
2	Beneficial Method or Approach
3	Difference in fish growth
5	Improvement in practices resulted in income generation
6	Use of traditional practices
7	Use of advanced tools, practices for fish cultures
8	Introduced new species

Indicator 3

Skill up gradation / acquired (Skilled beneficiaries)

Table 3 : Skill-Upgradation / Acquired by Beneficiaries

Sr No	Scientific practices / objective based activities or practices
1	Awareness about fish markets
2	Platform to sell fish
3	Training program benefit for fish selling
4	Networking with Fish Buyers
5	(fish) value addition practices
6	Sell of new fish made products

Associated benefits (Social, Institutional, Economical and Environmental)

Table 4 : Framework for associated benefits

Component	Indicators
Social	Level of commitment
	Organized Beneficiaries
	Participation in Decision Making
Institutional	Follow traditional practices
	Adoption of new practices / technology
	Reliance on subsidies
	Level of trust in public organization
	Training
	Participation of woman
Economical	Benefit-Cost Ratio
	Income
	Availability of basic infrastructure
Environmental	Introduction of new species
	Number of species grown

Result and Discussion

Objective Specific Benefits

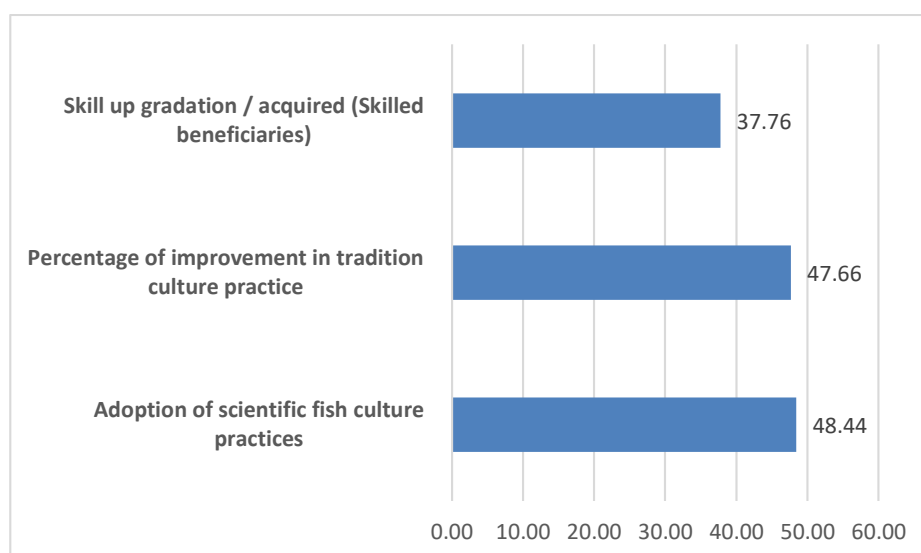


Figure 1 : Scores of objective specific indicators

Skill up-gradation acquired (skilled beneficiaries):

The overall score of “Skill up-gradation” Parameter is 37.75 %. After programmatic interventions. 1st sub indicator shows that farmers are slightly aware of the fish markets. The most of the fish farmers are selling the fish at the local level, 2nd sub indicator shows that the training is conducted but the percentage of participation is very low. 3rd sub indicator shows the 20% beneficiaries are still connected with fish buyers. The 4th sub indicator suggests no one can practice value addition practices after harvesting of fish

Generally, people prefer fresh fish rather value added products so that a very low percentage of value added products made from fish (15%).

Percentage of improvement in tradition culture practice

The overall score of “Percentage of improvement in tradition culture practice” Parameter is 47.66 % The result of 1st sub-indicators shows that the farmers changed their approach for the practices of fish species stocking with 68% changed behavior, and they are satisfied with this approach. 2nd sub indicator shows that farmers observed succeeding average growth of fish, 56% of sampled fisherman acknowledge that the improved practices increased yields and their income, 3rd sub indicator shows that still, 55% of fisherman are following the traditional practices. 4th sub indicator shows that 42 % of farmers have introduced new species and 5th sub indicator shows that farmers does not follow the advance techniques (tools) fish harvesting.

Adoption of scientific fish culture practices

The overall score of “Adoption of scientific fish culture practices” Parameter is 48.44 %.The result of 1st sub-indicators shows that maximum fish farmers practice proper scientific stocking density of fish seed 2nd sub-indicators shows that due to unavailability of commercial fish feed farmers does not managed feed quantity and proper nutritional feed.3rd indicator shows that farmers harvest fish stock before maturity of fish. 3rd sub-indicators shows that farmers cultured Indian major carps and Chinese carp which is high yielding and demanded species. 4th sub-indicators shows that fish farmers are not adapted scientific way of fish rearing rather than they prefer extensive way of culture. 5th sub-indicators shows that the participation of women in this activity is average, the observation indicates that the increase the participation of women/SHGs can be of useful for the initiative.

Associated Benefits (Social, Economic, Institutional, Environmental) Social Component

'Level of commitment' and 'participation in decision making' is observed as 'high'. 'Organized Fisherman' status have scored as 40 %. Here, collective purchase of inputs and sale of the output is observed low. It is suggested to form fisherman groups / FPOs to improve the social component. The engagement and follow up of the activities are demanded by beneficiaries (fisherman). The role of the local resource person with the communication from subject experts is vital. This engagement help to strengthen social component, indirectly.

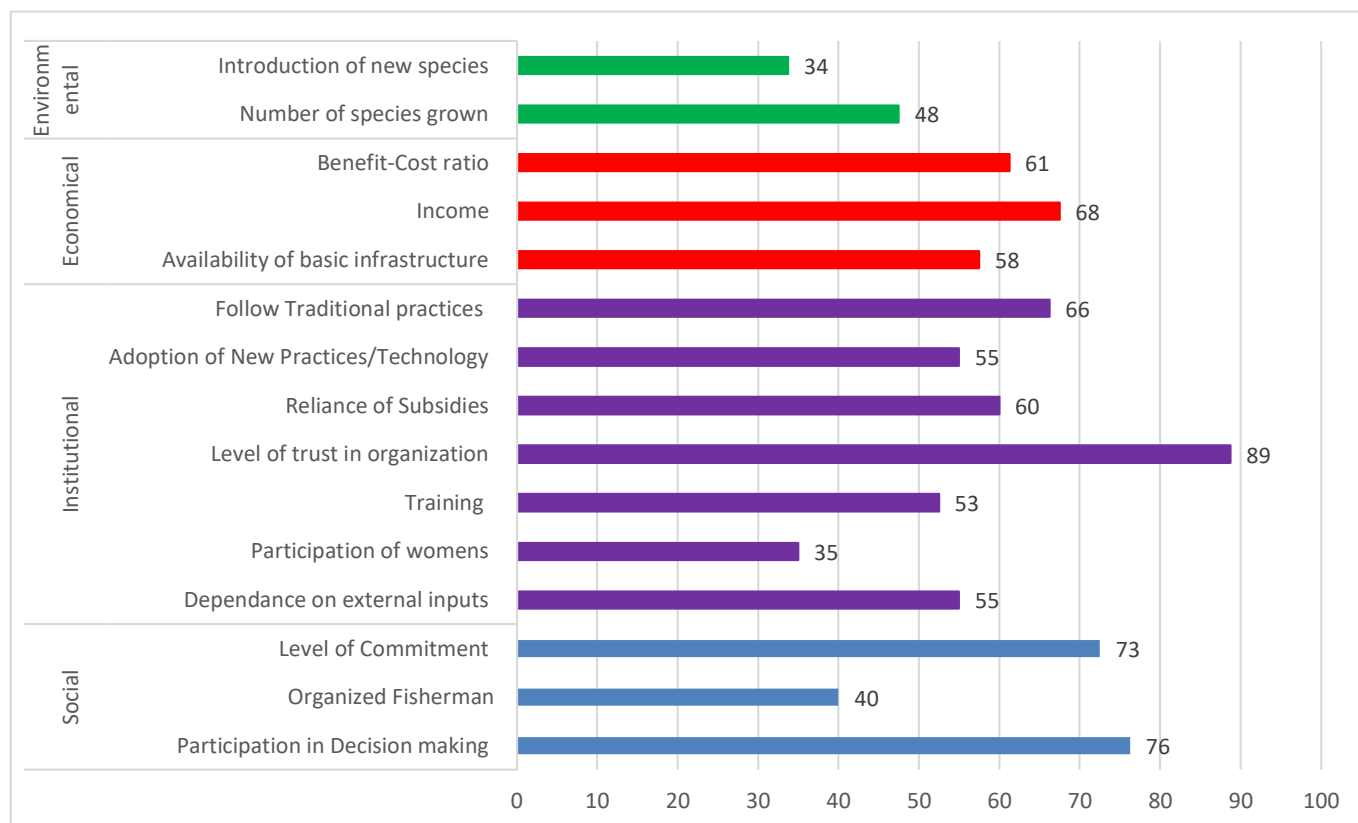


Figure 2 : Scores of associated benefits (social, institutional, economic and environmental)

Institutional Component:

'Adoption of New Practices (score 34 %)' and 'Training (score 48 %)' is scored as average. It indicates that we are lacking on extension, advisory services to the fisherman. The before- project activities of awareness and training for knowledge and capacity building should be encouraged in the project area. Fishermen trust the government and other organizations (94 % score). Most of them are not dependent on subsidies for the adoption of scientific fishery practices (60 % score). The woman participation (score 35 %) have been very less as compared with men's participation. The role of woman in the scientific fishery adoption can not be ignored. Woman local resource person (*Matyasakhi*) and fisherman engagement at woman self-help groups should be promoted. Other than hatchery for fish seed; institutions should also focus on fish feed generator at small group level and may be at individual level. Half of the sampled fisherman are still dependent on external inputs such as ready-made fish feed.

Economic Component

Very few fishermen have introduced new fish species to get a high yield. The availability of new fish species's seeds easily can be one of the priority. Basic infrastructure scored around 50 %. The support from the government and other organizations in the form of subsidies or infrastructure at the FPO/ Group level

with common ownership can be helpful. The benefit-cost ratio and returns on the investment have been scored high as compared with other indicators. Still, it has scope for improvement (score between 60 to 70 %). Fish feed is a significant part of production cost and the local manufacturing of the same should be promoted.

Environmental Component

The score of 'introduction of new species' indicator is observed as 34 % and the 'number of species grown' is 48 %. The diversity is important for sustainability. The high yielding specie which adapt easily to local and changing conditions should be promoted without a treat to the local species.

Conclusion of the Monitoring and Evaluation (Internal Social Audit)

1. In general, results show high possibilities of farmers continuing the adoption of scientific practices (48.44 %). Also, some farmers use traditional practices along with scientific methods (47.66 %).
2. An economic indicator shows higher returns (score of 68 %) through this project which results in a 61% of cost-benefit ratio.
3. Social benefits of the project were assessed in the form of participation, commitment, dependence on external inputs, and training as an important axis of that intervention. The overall score of the component is average. However, the participation of women in project activities is only 35%.
4. Also, the fact that the rate of introducing new species, the number of species grown, organized farmers is low and needs to be addressed.
5. Farmers trust the organizations and public administrations, institutions in general terms.
6. Farmers expressed that they rely less on government subsidies for continuing the scientific practices related to sustainable development.
7. Some issues like fish feed should also focused on and the manufacturing of the same with sufficient infrastructure at small groups can reduce cost of production



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