



## **PERFORMANCE OF IFDS (INTEGRATED FISHERIES DEVELOPMENT SCHEME) ASSISTANCE CAPACITY BUILDING AMONG THE FISHERMEN AND ITS INFLUENCE ON FISH PRODUCTION**

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### **Abstract:**

The present study aimed to describe the performance of Integrated Fisheries Development Scheme (IFDS) assistance and capacity building among the fishermen and its influence on fish production. The main objective of the present study is to determine how the IFDS assistance improves the all-round development of the fishermen in Telangana state. The primary data has been collected from the registered members of fisheries societies of four districts in Telangana State. Statistical tools Correlation, Kruskal Wallis H test, Mann Whitney U test are applied to achieve the desired objectives. The study revealed that there is positive correlation between socioeconomic status and fish catch assistance, and there exists significant differences across the IFDS assistance and demographics of the sample respondents. Hence the study concluded that the IFDS assistance improved the socio economic conditions of the fisherman in the study area. The government authorities have to put more effort into the development of the IFDS scheme.

**Keywords:** Capacity building, financial support, production, livelihood.

### **Introduction:**

The Integrated Fisheries Development Scheme (IFDS) is a government initiative aimed at providing assistance and capacity building to fishermen in Telangana state, India. The program is designed to improve the fishing techniques of fishermen, increase their catch, and enhance their livelihoods. The IFDS program provides training, equipment, and financial support to the fishermen to achieve these objectives. The program has been successful in increasing fish production in Telangana state by improving the efficiency and effectiveness of fishing operations. The IFDS assistance and capacity building program have also had a positive impact on the economic conditions of the fishermen by enabling them to increase their incomes and improve their standard of living. In this article, we will discuss the IFDS assistance capacity building among

the fishermen and its influence on fish production in Telangana state. Telangana state, located in southern India. Fishery is an important economic activity in the state, providing livelihoods to thousands of fishermen and their families. However, the sector faces several challenges, including overfishing, lack of infrastructure, and inadequate technical knowledge among fishermen. To address these challenges and improve the livelihoods of fishermen, the Telangana state government has undertaken several capacity-building initiatives. Some of the notable efforts include:

- 1. Training programs:** The government has conducted training programs for fishermen on various aspects of fishery, including fishing techniques, post-harvest handling, and marketing. These programs are aimed at improving the technical knowledge of fishermen and enhancing their efficiency and productivity.
- 2. Provision of equipment and infrastructure:** The government has also provided fishing equipment and infrastructure to fishermen, including boats, nets, cold storage facilities, and ice plants. This has helped to improve the quality of fish caught and stored, and reduce post-harvest losses.
- 3. Financial support:** The government has provided financial support to fishermen in the form of subsidies and loans. This has helped them to upgrade their equipment and infrastructure, and invest in their businesses.
- 4. Collaborative initiatives:** The government has collaborated with various organizations, including NGOs, research institutions, and private companies, to implement capacity-building initiatives. These collaborations have helped to leverage resources and expertise and promote sustainable fishery practices.

Overall, the capacity-building initiatives undertaken by the Telangana state government have helped to improve the livelihoods of fishermen and promote sustainable fishery practices. However, there is still a long way to go in addressing the challenges facing the sector and ensuring its long-term viability. The Integrated Fisheries Development Scheme (IFDS) is a government scheme that has been implemented in Telangana state to promote sustainable aquaculture practices, increase fish production, and improve the livelihoods of fisherfolk in the state. The scheme provides financial and technical assistance to fish farmers and entrepreneurs to establish fish farms, hatcheries, and other related infrastructure. To assess the effectiveness of the IFDS in Telangana state, the government has conducted several evaluations and audits. Here are some key findings from these assessments:

- 1. Increased Fish Production:** The IFDS has helped to increase fish production in the state by promoting the adoption of improved aquaculture practices, providing better access to inputs, and enabling better market linkages for fish farmers.
- 2. Improved Livelihoods:** The IFDS has improved the livelihoods of fisherfolk in the state by providing them with better access to credit, training, and technical assistance, and by creating new employment opportunities in the sector.

3. **Sustainable Practices:** The IFDS has promoted sustainable aquaculture practices in the state by promoting the use of eco-friendly technologies, encouraging the adoption of good aquaculture practices, and supporting the development of environmentally friendly infrastructure.
4. **Enhanced Infrastructure:** The IFDS has supported the development of infrastructure such as hatcheries, fish seed farms, and processing units, which has helped to boost the overall productivity and efficiency of the fisheries sector in the state.

Overall, the IFDS has been a valuable scheme for the government of Telangana in promoting sustainable aquaculture practices, improving fish production, and enhancing the livelihoods of fisherfolk in the state.

The Integrated Fisheries Development Scheme (IFDS) is a government scheme that aims to promote the development of the fisheries sector in India. The scheme provides financial assistance for various activities, including the construction of ponds and tanks, the development of fish hatcheries and nurseries, the creation of infrastructure for fish processing and marketing, and the provision of training and extension services to fish farmers and fishermen.

In Telangana state, the implementation of the IFDS has had a positive influence on fish production. The scheme has helped to improve the productivity and sustainability of fish farming activities in the state by providing financial assistance and technical support to fish farmers. Some of the specific ways in which the IFDS has influenced fish production in Telangana state include:

1. **Infrastructure development:** The IFDS has supported the construction of ponds, tanks, and other infrastructure for fish farming in Telangana state. This has helped to increase the availability of water for fish farming and improve the quality of the fish produced.
2. **Improved fish seed supply:** The IFDS has supported the development of fish hatcheries and nurseries in Telangana state, which has helped to improve the availability and quality of fish seed for farmers.
3. **Capacity building:** The IFDS has provided training and extension services to fish farmers in Telangana state, which has helped to improve their technical knowledge and skills. This has enabled them to adopt better fish farming practices and improve their productivity.
4. **Market linkages:** The IFDS has supported the development of infrastructure for fish processing and marketing in Telangana state. This has helped to improve the value chain for fish production and increase the income of fish farmers.

Overall, the IFDS has had a positive influence on fish production in Telangana state by providing financial assistance and technical support to fish farmers and promoting sustainable fish farming practices.

### Review of Literature:

This review of literature provides the basis for understanding the problem by identifying the gap in research so as to lead to further study. To understand the present study, it is essential to know the earlier works in this field. Research projects undertaken by various individuals and several articles published in this

field have been taken into consideration. Among these, important ones are briefly reviewed. The review covers the case for and significance of fisheries, the problems associated with the development of the fisheries sector, and the policies of the Government, both Central and State, for the promotion of the fisheries sector.

**R Kiruba-Sankar, P Krishnan, Grinson George, K Lohith Kumar, J Raymond Jani Angel, K Saravanan, Dam Roy (2021)<sup>(1)</sup>** In their study they found opinions and strategies for sustainable management the issues highlighted could be integrated in the policy development plans for sustainable fishery management. The opinions provided in the article could assist the administrators and policymakers towards the planning and management of fishery resources. Operative trade links and logistical developments along with robust fisheries governance could provide larger benefits to the stakeholders of the Islands in providing livelihood, income generation and employment opportunities in a sustainable manner.

**JK Jena, PC Das and A Panigrahi (2020)<sup>(2)</sup>** In this paper Gandhian thoughts on agriculture/aquaculture are based on 'Self-reliance' and it also preaches the conservation of the ecosystem for the future generation. the need to increase in fish production should focus on sustainable development through horizontal expansion of the culture area and judicious utilization of the resource capacity for a vertical increase rather than perturbing the ecosystem balance through intensive farming practices. The country has floated the slogan 'Atma Nirvar Bharat', thurb bringing the ideology of Bapuji to the forefront of our thinking and planning process. Thus, self- reliance in aquaculture/fisheries should encompass the sustainability, social equity, eco-based activities with due consideration for economic viability. ICAR institutes with their stateof the-art scientific facilities and infrastructure and a pro-farmer policy can fulfil Gandhiji's dream of self-reliance and Gram Swaraj @2020, Indian Council of Agricultural Research, New Delhi. ISBN No.: 978-81-7164-2069

**Rathees, R.J research scholar (2018)<sup>(3)</sup> studied there is no detailed scientific and extensive study on the socio-economic activities of fishing workers in the Tuticorin region.** In his research he analyses hence research in required inevitably to weed out the exploitation of the weaker section with total literacy living along the coastal line of Tuticorin district. The present study will throw more light on the fishermen's" real contribution for the economic development to the nation. The present study aims to explain the Status of Marine Fishing Workers in the selected six fishery villages of Tuticorin District, Tamil Nadu.

**Richard (2016)<sup>(4)</sup> The accessing Credit Finance by Artisanal Fishermen: The Case of Lake Victoria in Kisumu, Kenya.** In this survey studied access to credit by artisanal fishermen have been analysed in different studies. Analysed the information needs of artisanal fishermen in Nigeria and reported that there was limited information related to the access of credit by artisanal fishermen. A study found that the surveyed fishermen in Tanzania was constrained in access to credit or loans and resulted in using their own funds for fish farming. In addition, the study found that few of the artisanal fishermen were able to access loans from financial institutions. This credit was obtained from banks, family members, friends and money lenders. On the other

hand, the factorial analysis showed that: - saving regulations, group characteristics, socio economic factors, gender issue, household expenditure and marital status have an impact on accessing finance.

**Ashok (2016) <sup>(5)</sup> have examined that the study on income and expenditure pattern of fishermen in Veerapandianpattinam area.** This study analysed that the socioeconomic status of fishermen, to evaluate the extent of indebtedness among fishermen and the credit facilities available to them from formal and informal markets., to bring out the major constraints encountered by the fishermen for their economic upliftment and to suggest necessary remedial measures to overcome the problems of the fisherman. An attempt is made to examine the pattern of indebtedness among sample 90 fishing households in the selected village. It is found that a large majority of the fishing households are suffering from heavy debts. The fishermen use the borrowed amount for various purposes such as household consumption, purchase of boats and gears, repairing of boats and nets, house constructions and repairs, medical expenses, etc. One of the reasons for the increasing debt burden in the fishing community is non- availability or inadequate availability of loan from the institutional agencies. Majority of the loans are taken from moneylenders with high interest rate.

### **Research Gap:**

From the earlier studies it is found that many studies conducted In fisheries production. Socio economic conditions of fishermen and performance of cooperative societies at Macro level it is found that only few studies in Telangana are conducted related to fisheries production. In Telangana state one of main goals of present Government is to improve livelihood conditions of the fishermen on part of this Telangana Government has taken so many initiatives towards their improvement of livelihood.

### **Objectives of the Study**

To assess the IFDS assistance, capacity building among the fishermen, and its influence on fish production

### **Hypotheses of the Study:**

H<sub>0</sub>: There is no influence of IFDS assistance of capacity building on fish production.

H<sub>1</sub>: There is a influence of IFDS assistance of capacity building on fish production.

### **Research Methodology:**

The current study adopted a descriptive research design with a quantitative approach to describe the sociodemographic details of the fishermen, IFDS assistance and capacity building among the fishermen, socioeconomic status of the fishermen, and awareness and barriers in adopting new technologies among fishermen in Telangana state.

## Data Analysis:

The fish catch assistance is a domain of the self-prepared questionnaire, and it consists of five items with five-point Likert scale including strongly agree, agree, undecided, Disagree, and Strongly disagree. The scale is also further made into the continuous scale by making total score of the five items and categories into three major categories by following mean-Sd, Mean+Sd and above Mean+Sd of the continuous scale, which the researcher the help of statistician.

**Table No: 1.1 Relationship between fish catch assistance and socioeconomic status**

| Correlations   |                       |                         |                       |        |
|--|-----------------------|-------------------------|-----------------------|--------|
|  |                       |                         | Fish Catch Assistance | SES    |
| Spearman's rho   | Fish Catch Assistance | Correlation Coefficient | 1.000                 | .174** |
|  |                       | Sig. (2-tailed)         | .                     | .001   |
|  |                       | N                       | 386                   | 386    |
|  | SES                   | Correlation Coefficient | .174**                | 1.000  |
|  |                       | Sig. (2-tailed)         | .001                  | .      |
|  |                       | N                       | 386                   | 386    |
| **. Correlation is significant at the 0.01 level (2-tailed). |                       |                         |                       |        |

Source: Compiled from primary data.

The above table results show the Spearman's correlation between the fish catch assistance by IFDS and the respondents' socioeconomic status. The test results show a statistically significant positive correlation [ $\rho (386) = .174^{**}, p=0.001$ ] found between the fish catch assistance and the respondents' socioeconomic status. It is inferred that if the fish catch assistance increases, the respondent's socioeconomic status also increases. Therefore, fish catch assistance from IFDS plays a vital role in enhancing the respondents' socioeconomic status.

**Table: 1.2: Comparison of Fish catch assistance by IFDS between the categories of domicile**

| Variable                             | Domicile         |                 |                  | Test Statistics<br>H-value | p-value |
|--------------------------------------|------------------|-----------------|------------------|----------------------------|---------|
|                                      | Tribal<br>(n=15) | Rural<br>(n=77) | Urban<br>(n=294) |                            |         |
|                                      | Median (IQR)     |                 |                  |                            |         |
| <b>Fish Catch Assistance by IFDS</b> | 18 (17,19)       | 18 (17,19)      | 19 (20,18)       | 3.598                      | 0.165   |

Source: Compiled from primary data.

The above table results show the comparison of differences in scores of fish catches assistance by IFDS between the categories of domicile of the respondents. The researcher has performed a Kruskal Wallis H test to understand the fish catch assistance differences between the categories of Tribal, Rural, and Urban domicile. The test results show insignificant differences [H=3.598, df=2, p=0.165] across the categories of domicile, including Tribal 18 (17,19), Rural 18 (17,19), and Urban 19 (20,18).

**Table 1.3: Comparison of Fish catch assistance by IFDS between the categories of respondent's vocational skills**

| Variable                             | Vocational Skills  |                        |                          | Test Statistics<br>H-value | p-value |
|--------------------------------------|--------------------|------------------------|--------------------------|----------------------------|---------|
|                                      | Fishing<br>(n=275) | Fish Farming<br>(n=50) | Fish Marketing<br>(n=61) |                            |         |
|                                      | Median (IQR)       |                        |                          |                            |         |
| <b>Fish Catch Assistance by IFDS</b> | 19 (20,18)         | 19 (20,18)             | 19 (20,18)               | 0.208                      | 0.901   |

Source: Compiled from primary data

The above table results show the comparison of differences in scores of fish catches assistance by IFDS between the categories of vocational skill of the respondents. The researcher has performed

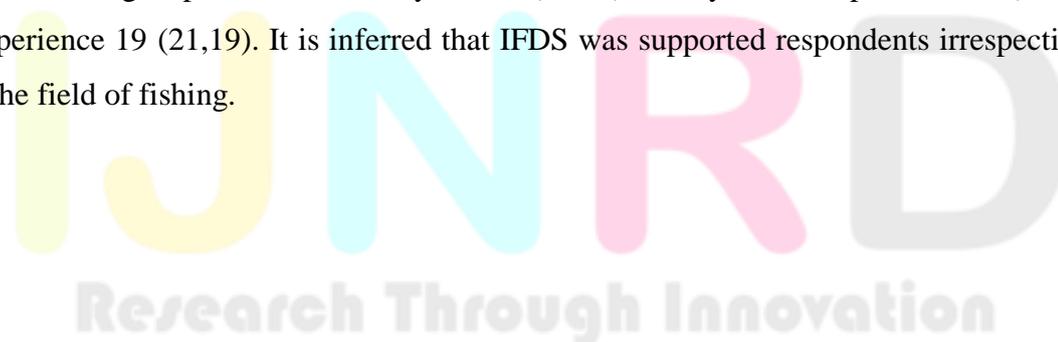
a Kruskal Wallis H test to understand the fish catch assistance differences between the categories of skills in fishing, skills in fish farming, and skills in fish marketing. The test results show insignificant differences [ $H=0.208$ ,  $df=2$ ,  $p=0.901$ ] across the categories of vocational skills, including skills in fishing 19 (20,18), skills in fish farming 19 (20,18), and skills in marketing 19 (20,18).

**Table:1.4: Comparison of IFDS support between the categories of respondent's experience**

| Variable            | Experience   |            |                | Test Statistics<br>H-value | p-value |
|---------------------|--------------|------------|----------------|----------------------------|---------|
|                     | 0-5 years    | 5-10 years | Above 10 years |                            |         |
|                     | Median (IQR) |            |                |                            |         |
| <b>IFDS Support</b> | 19 (19,17)   | 20 (20,19) | 19 (21,19)     | 3.277                      | 0.194   |

Source: Compiled from primary data.

The above table results show the comparison of differences in scores of IFDS support between the categories of experience in fishing of the respondents. The researcher has performed a Kruskal Wallis H test to understand the IFDS support differences between the categories of respondent's experiences. The test results show insignificant differences [ $H=3.277$ ,  $df=2$ ,  $p=0.194$ ] across the categories of experience of the respondents in the fishing, experience from 0-5 years 19 (19,17), 5-10 years of experience 20 (20,19), above 10 years of experience 19 (21,19). It is inferred that IFDS was supported respondents irrespective of their experience in the field of fishing.



**Table: 1.5: Comparison of IFDS support between the categories of background variables**

| <b>Comparison of IFDS support across the categories of age, education, and Marital Status of the respondents</b> |                        |                   |                      |                        |                           |
|--|------------------------|-------------------|----------------------|------------------------|---------------------------|
| <b>S. No</b>   | <b>Variable</b>        | <b>Categories</b> | <b>Media n [IQR]</b> | <b>Test Statistics</b> | <b>p-Value [&lt;0.05]</b> |
| 1.   | Age of the respondents | 18-40 Years       | 19 (20,19)           | 0.631                  | 0.730                     |
|  |                        | 41-60 Years       | 20 (21,19)           |                        |                           |
|  |                        | Above 60 years    | 19 (21,18)           |                        |                           |
| 2.   | Education              | Illiterate        | 19 (20,19)           | 15024.00               | 0.138                     |
|  |                        | Literate          | 20 (21,19)           |                        |                           |
| 3.   | Marital Status         | Married           | 19 (21,19)           | 3316.00                | 0.164                     |
|  |                        | Unmarried         | 19 (20,18)           |                        |                           |

Source: Compiled from primary data.

The above table depicts the results of Kruskal Wallis and Man-Whitney U test findings and the comparison of differences in scores of IFDS support between the categories of age, education, and marital status of the respondents. The statistical analysis reveals insignificant differences found in IFDS support scores across the categories of age [ $H=0.631$ ,  $df=2$ ,  $p=0.730$ ], education [ $U=15024$ ,  $df=2$ ,  $p=0.138$ ], and marital status [ $U=3316$ ,  $df=2$ ,  $p=0.164$ ] of the respondents. It is concluded from the results that the IFDS is providing support to the respondents irrespective of their age, education, and marital status.

| <b>Variable</b> | <b>Type of family</b>         |                            | <b>Test Statistics U-value</b> | <b>p-value</b> |
|-----------------|-------------------------------|----------------------------|--------------------------------|----------------|
|                 | <b>Nuclear Family (n=333)</b> | <b>Joint Family (n=53)</b> |                                |                |
|                 | <b>Median (IQR)</b>           |                            |                                |                |
|                 |                               |                            |                                |                |

|                     |            |            |      |       |
|---------------------|------------|------------|------|-------|
| <b>IFDS Support</b> | 20 (21,19) | 19 (20,19) | 8214 | 0.405 |
|---------------------|------------|------------|------|-------|

**Table: 1.6: Comparison IFDS support between the categories of respondent's type of family**

Source: Compiled from primary data.

The above table results show the comparison of differences in scores of IFDS support between the categories of type of family of the respondents. The researcher has performed a Man-Whitney U test to understand the IFDS support scores differences between the categories of the nuclear family and joint family. The test results show insignificant differences [ $U=8214$ ,  $df=2$ ,  $p=0.405$ ] across the categories of type of family, including nuclear family 20 (21,19) and joint family 19 (20,19); therefore, it is concluded that the IFDS provided the support irrespective of their nuclear family and joint family.

### Conclusion:

The study aimed at assessing the Integrated Fisheries Development assistance provided to the fishermen from the study area and their capacity building among the study participants and adopting the new technologies in the fisheries sector with the help of IFDS, The overall influence of these factors on the socioeconomic status of the fishermen. The study has revealed a few interesting findings, which are essential to address and pay immediate attention need to be given.

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