

# A Spatio - Temporal Analysis on Human Resource Management in Fishing

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**Abstract** — Agriculture human resource management is a very complicated issue that is more impacted by social than by economic variables. One of the most significant areas of research in the social sciences is the examination of how fishermen and their relationships in India are affected by the changing ocean structure. Over the past three decades, a number of studies have been conducted on this topic. A quick overview of the research studies conducted on some of the components of human resource management in fishing is felt acceptable to give. In the framework of a fishing economy like ours, this research analyses human resource management's role in boosting fishing production widely.

**Keywords** — *Human Resource Management; Agriculture; Sustainability; Economic Variables.*

## 1. Introduction

India is the world's second-largest producer of fish for aquaculture and the third-largest fish producer overall. About 7% of the world's fish are produced in India. Additionally, the nation is one of the 17 nations with the highest concentrations of biodiversity, and it is home to over 10% of the world's fish species. The fishing industry, as well as related industries, employs about 14 million people. Gujarat, West Bengal, and Andhra Pradesh are the top three fish-producing states in the nation. Estimates for 2017–18 place the overall fish production at 12.60 million metric tonnes, with inland fisheries accounting for about 70% of the total production and cultural fisheries for around 50%. 75 different nations throughout the world get more than 50 distinct types of fish and shellfish products.

With 13.77 lakh tonnes in terms of quantity and Rs. 45,106.89 crore in terms of value, fish and fish products have recently emerged as the largest category of agricultural exports from India. This contributes to roughly 0.91% of the GDP and 5.23% of the country's agricultural GVA and accounts for about 10% of the overall exports and about 20% of the agricultural exports.

## 2. Contribution of Human Resources in Indian Agriculture

In general, investments in HRD do not necessarily provide evident results right away. As a result, despite the fact that the majority of countries view HRD as a key area for sector growth, development institutions, governments, and donor agencies often assign HRD a relatively low priority. For instance, a recent Network of Aquaculture Centres in Asia-Pacific (NACA)/Food and Agriculture Organization of the United Nations (FAO) survey in Asia

found that 71% of the countries noted that a lack of skilled personnel was a major impediment to further development and that 93% of the countries considered HRD to be a major problem facing aquaculture (NACA/FAO, 1996).

## 3. Background of the Study

The most significant and sustaining element for humans all around the planet has been fish. As fish is the most significant component of their nutrition and the primary source of their income, this is especially true for coastal communities. The coastal population's main industry is fishing. It serves as a primary raw material for numerous businesses, including the manufacturing of different types of oils and fishmeal for poultry. India has a 7,517 km coastline and abundant maritime resources. Fishing has enormous development potential and is quickly becoming one of India's top exports.

## 4. Review of Literature

According to Ostroff (1995), businesses perform better when their human resource experts believe that their procedures are of a higher calibre. Studies have demonstrated a link between modern human resource strategies and industrial firms' performance.

Barbosa (2002) claims that there are no suitable rules for mechanical fishing in Goa in his paper "Fishing for a High Living." The state has no trawler licencing programme. Once a trawler owner registers his vessel, he is no longer required to contact any government agency. There are 1128 registered trawlers in the state of Goa, which is much more than the saturation point. He contends that restrictions on the number of trawlers operating in the sea and their planned expeditions are necessary. Assessment of Indigenous knowledge of coastal fisher folk

in greater Mumbai and Sindhudurg district of Maharashtra, 10 June 2003, Nirmalevivek H., Central Institute of Fisheries Education, Mumbai The study's conclusion is that the traditional knowledge of coastal fisher folk on a variety of fisheries management issues, such as choice of gear and techniques for fishing and fish processing, their perceptions of the impact of water colour, wind direction, lunar cycles, and tidal fluctuations on fish catch, is largely based on scientific rationality efficacy, and use of local resources as judged by the fisheries experts, so such traditional knowledge can be profitably blended.

## 5. Statement of the Problem

Data on many socioeconomic elements of rural and agricultural labourers, including employment and unemployment, consumption expenditure, wages and earnings, and debt, are gathered as part of the Rural Labour Enquiries (RLE). In order to create weighting diagrams for updating the series of the Consumer Price Index Numbers for fishermen, the RLE also aims to gather data on household consumption expenditures of rural/fishermen.

The information is gathered and examined for fishermen as a whole under these inquiries. However, the research is offered for fishermen individually to allow comparison with earlier inquiries and to better understand the issues facing this group, which makes up the majority of rural fishers. Various Committees and Commissions have occasionally acknowledged the value of the information the Rural Labor Enquiries have produced. The National Fisheries Development Board has advised that the Government maintain and step up its periodic surveys to better grasp the situation in rural areas. As a result, the current study is detailed in its discussion of Indian fishing's human resource management and its historical analysis in the chosen regions.

## 6. Scope of the Study

The present study is of utmost significance because it examines how human resources contribute to improving Indian fisheries and other relevant issues in the research area. There were many more macro level studies have been already carried out but no attempt has been made in the micro analysis and analysing the significance of the contribution of HRM in our fishing and tries to solve and answer the research gaps and unanswered research questions. This study is now thought to be the most pertinent and has a great deal of potential for increased productivity in the specific area. All rural fishermen's houses are included in the investigation. However, there is a mechanism in the tabulation plan to obtain different figures for households that are fishermen.

## 7. Objectives

- The investigation's primary goals are to: 1) Research how human resources affect fishing production in the research region.
- To discuss issues related to the spatial and temporal examination of India's human resources during the course of the research.
- To present an accurate and realistic image of the Human Resources and their use of the fishing workforce in raising fishing output through contemporary production techniques.
- To examine the difficulties that fishermen have in collecting their fair share of income and other issues related to their way of life in this region.
- To provide up-to-date serial data on demographics, employment and unemployment rates, wages and earnings, household consumption spending, indebtedness, etc. in order to develop accurate estimates of key socio-economic traits of rural fishermen in general and fishermen in particular.
- To supply consumer expenditure data for the weighting diagram that will be used to update the series of CPI figures for fishing and rural fishermen.
- To offer some policy suggestions for enhancing the productivity of the fishing force

## 8. Sample Design

The survey's sample units were chosen using a stratified multistage sampling technique. The census villages made up the first stage units (FSU) (panchayat wards for the selected area). The homes were the ultimate stage units (USU).

Units of the first stage are categorised: Initially, two unique strata were created from the list of villages in each State/Union Territory (U.T.) by taking into account villages with (a) extremely low populations and (b) extremely large populations, as mentioned below: All FSUs with a population of between 1 and 100 are included in stratum 1.

- FSUs in Stratum 2 having a population of at least 10,000
- The first two strata were dispersed across a State and were not restricted to any one area of government.

If there were at least 50 such FSUs in each of the two layers mentioned above, the strata were created. If not, these settlements were a part of the broader strata. Every district with a population of under 2 million was given its own stratum when constructing the general strata. Smaller districts within a certain NSS area were combined to form a stratum if sample size restrictions prevented the formation of as many strata. Every district that had at least 2 million rural residents according to the 1991 Census (1.8 million or

more according to the 1981 Census in the case of Jammu & Kashmir) was divided into a number of strata.

First stage unit distribution: In the 55th round, a total of 10,384 FSUs (6208 villages and 4176 urban blocks) were chosen at the all-India level to be surveyed in the central sample. Statement-I provides the actual State/UT level allocation of FSUs for the rural sector. The rural sample size at the state/UT level was distributed among the rural strata according to population percentage. Each State/sample UT's size for the whole round was divided evenly across the 4 sub-rounds. To make it easier to choose FSUs for two separate sub-samples, stratum level allocation for both rural and urban regions of a sub-round was made in even numbers.

For sub-round 1, the sub-sample numbers were 1 and 2, for sub-round 2, 3, 5, and 6, and for sub-round 4, 7, and 8. The rotating sampling strategy, which was employed for the first time in the NSS for the sole purpose of collecting employment-unemployment data from the central sample, was one notable aspect of the 55th round. According to this plan, 1 sub-sample of the first stage units (FSUs) sampled during each sub-round was re-examined during the next sub-round. From each of these FSUs, sample families that were previously visited for the purpose of gathering information on employment and unemployment were re-visited for the purpose of gathering more information on employment and unemployment.

### **9. Recent Economic Trends: Growth recovers and Inflation Stabilizes**

In India's fiscal year 2019, the gross value generated from fishing and aquaculture to agriculture was over 1.4 trillion Indian rupees. Since the fiscal year 2012, this industry has continuously contributed to rising GVA. During the 2019–20 period, GDP growth was 4%. Real gross value added (GVA) figures for 2019–20 and 2018–19 are Rs 145.69 trillion and Rs 140.03 trillion, respectively, showing growth of and 6.5% during 2018–19. They also show that strong industrial growth has fueled the return of these higher growth rates, as shown by the real gross value added (GVA) figures.

India's GDP decreased by 6.2% in 2020–21 compared to a 4.1% increase in the year before. Only two industries, agriculture, forestry, and fishing (which had a 3.6% increase), defied the trend of declining GVA growth. In keeping with the objectives of the Indian government's "Make in India" policy, manufacturing saw a 9.3% increase in 2015–16.

### **10. Conclusion**

Rural areas are home to almost two-thirds of the nation's labour force. They mostly rely on wage-paying jobs for their subsistence. The Indian government has made an effort to reduce poverty, especially in rural regions, by developing and executing a number of anti-poverty rural development programmes. For creating such action programmes, a solid data base is crucial. In order to achieve this goal, the first Agricultural Labour Enquiry (ALE) was carried out in 1950–51, and the second one in 1956–57. The focus of the subsequent investigations was expanded to include all rural labour homes as opposed to just the houses occupied by fishermen as in the initial two investigations.

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