

CONTRIBUTION OF FISH FARMING BUSINESS TO POVERTY ALLEVIATION IN INDIA: ASSESSING THE CURRENT EVIDENCE

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ABSTRACT

Fish Farming Business plays a vital role in the Indian economy and livelihood. Fisheries is one of India's fastest-growing sectors and can generate large-scale employment, contribute to economic growth, earn foreign exchange, and improve nutritional food security. The sector provided jobs to 13 million people in India. (6.3 million in inland capture, 4.1 million in aquaculture, 1.9 million in marine capture, and 0.5 million other subsistence). India Fisheries sector is likely to reach 15.25 million from an estimated 14 million in 2014-15. Andhra Pradesh, West Bengal, Gujrat, Kerala and, Tamil Nadu are the top five states in India. Fisheries sector beneficiaries 40,56,213 fisherfolk in India, which consist of 8,74,748 fish farming families. The analysis reveals that fish farming contributes undeniably to employment generation and shows the link between fisheries and poverty alleviation. Finally, they concluded that evidence-based research shows positive outcomes in favor of the Fish Farming business. Fisheries contributions significantly towards poverty eradication in India.

Keywords: Fish Farming Business, Poverty Alleviation, Food Security and Nutrition, Employment, Management.

INTRODUCTION

Fishing is a sunrise region in the Indian economy. Fisheries are being practiced as a business in India from ancient to the current year. The fisheries sector has a huge role in food security, employment generation, fish and fish product exports, national income, international trade, and livelihood to fishers in India. (Mruthyunjaya, 2004). Food and Agriculture Organization presented guidelines for securing sustainable small-scale fisheries in poverty eradication and food security. (Food and Agriculture Organization [FAO], 2015).

Fiscal Reform allows the fishery sector to contribute to poverty reduction. Poverty is a multifaceted issue; no single economic sectors deal with it alone. The fisheries sector does have the potential to play a role in Poverty reduction with the help of proper management and arrangement of fish resources. DFID is working on issues such as fish delivery, resource management, and policy planning and implementations. (DFID, 2004)

INDIA FISHERIES PROFILE AT A GLANCE

Fisheries and Aquaculture are among the fastest-growing and producing sectors in India and can generate large scale employment and play an essential role in the Indian economy and livelihood. India has a Coastline of 8,118 km, an Exclusive Economic Zone (EEZ) of 2.02 million sq. km, and more than one billion people live in coastal areas. The fisheries sector provided about 13 million people jobs last year. (4.1 million jobs in Aquaculture, 6.3 million jobs in Inland capture, 1.9 million jobs in Marine capture, and 0.5 million other subsidiary jobs.). (FAO, 2019)

Fish Production During Recent Years

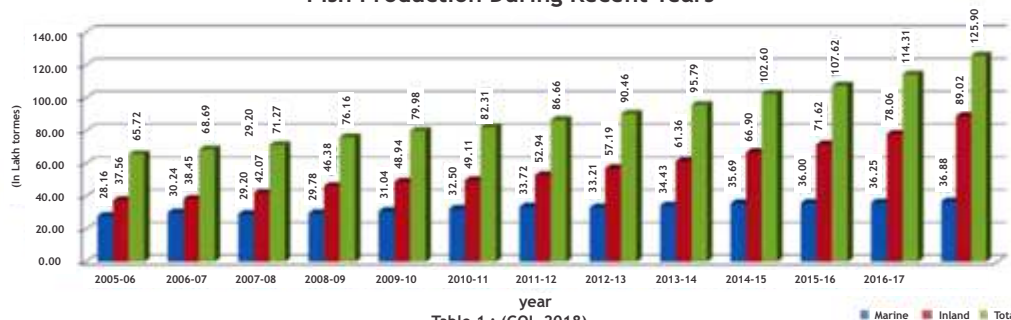


Table 1 : (GOI, 2018)

Department of Animal Husbandry, Dairying, and Fisheries Ministry of Agriculture & Farmers Welfare Government of India reported that in India, total fish production during the financial year 2017-18 is 12.61 million metric tonnes (3.69 Marine Capture, 8.90 Inland Capture). The Gross Value Addition (GVA) from Fisheries and Aquaculture during 2016-17 was Rs. 1,33,492 crores, which are about 0.96% of the National Gross Value Added and 5.37% from the Agriculture sector GVA during 2016-17. In 2017-18 India exported 13,77,244 tonnes offish and fish products worth 45,106.89 crore, which is equal to 7.08 billion US \$. (Department of Animal Husbandry, Dairying [DAHD], 2019). According to the Handbook on Fisheries Statistics 2018, released by Minister of Animal Husbandry, Dairying, and Fisheries, Giriraj Singh announced that India ranks second in Aquaculture after china and third in Fisheries production after China and Indonesia.

REVIEW OF LITERATURE

Many studies reported on the economics of fisheries and poverty alleviation worldwide. Ministry of Fisheries addressed that in 2017-18 steady growth in India's export of fish and fish products. During the media briefing, he said that the Government had makeup plans to boosting marine export to 1 lakh crore over the next years. In the upcoming year, the Government will invest 25000 crores in the fisheries sector. The funds will mainly develop and improve fishing infrastructure, generate employment for uplifting coastal people living status, and strengthen and process post-harvest management. The center has provided financial

support to the state to developing fishing harbors and fish landing centers for helping fisherfolks. (India's Fish Production, 2019)

Assocham, Apex Industry Body said that “India could achieve about 16 million metric tonnes (MMT) of Inland and Marine fisheries production by 2019-20 thereby adopting a target printed approach to achieve eight percent growth year-on-year.” (Ghoshal, 2017)

World Irrigation Forum, Thailand (WIF), published a research paper titled as food security and poverty alleviation through small-scale fisheries in a district in India. Paper revealed the role of small-scale fisheries for poverty alleviation in the Aurangabad district. India has vast potential for fishing resources like Inland port and tanks, directly impacting fishermen's employment generation, increasing income, and ensuring food security. Male are dominantly engaged in fishing and females in trading that helps in eradication poverty. (Sangle & Bagla, 2016)

The authors discussed that the principle of fish farming learnings and policies favors small-scale aquaculture procedures. Central Institute of fisheries Education demonstrated that Bangladesh and many states in India have immense possibilities in significantly improving small-scale farmers through acceptable governance practices, policies, innovation extension, appropriate technologies, and market support services. Aquaculture is the fastest-growing food production sector worldwide provided nutritional security, sustainable rural livelihood, reduce poverty, and earn foreign exchange. (Kumar, Ananthan, Reddy & Sharma, 2013)

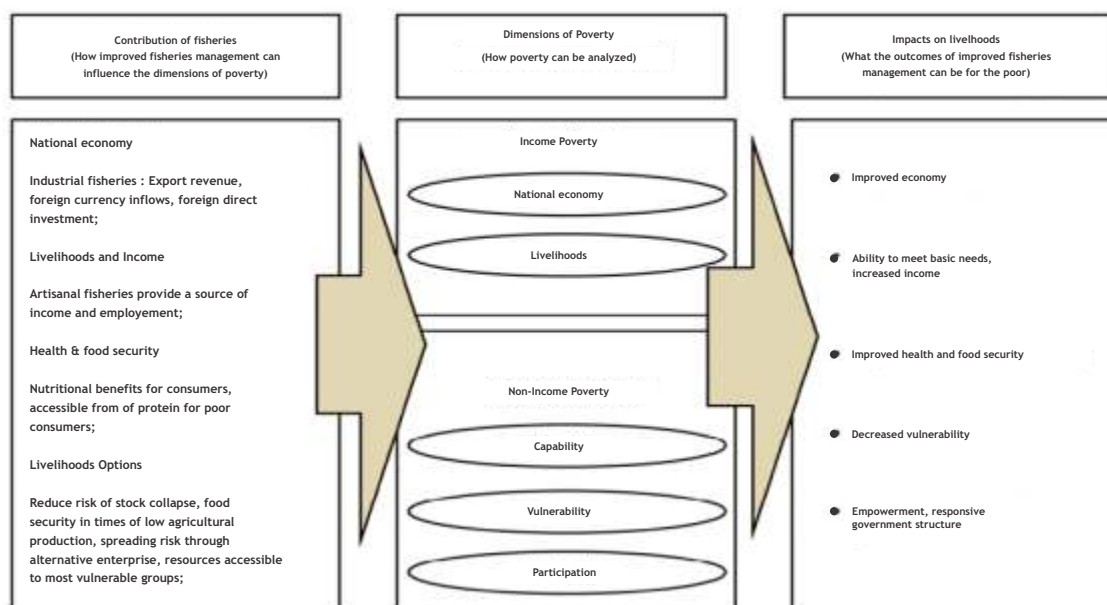


Figure 1: (World Bank & DFID)

In India, fisheries management through activities like the National economy, livelihood and income, health, and food security positively influence fisheries sector poverty. We can achieve positive results by analyzing income and non-income poverty and received outcomes such as improved economy, ability to meet basic needs, increased revenue, improved health and security, decreased vulnerability, empowerment responsive government structure for the poor fisher communities. (Noman, Mohsin, Bukhari, Hamid & Mehak, 2019). Mangroves influence the production of economically important marine fisheries in India. Mangrove contributes positively to increase fish production in the coastal states such as Kerala, Karnataka, Goa, Maharashtra, Gujarat, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, and Pondicherry of India. It is essential for the efficiency improvement of fish production in India. (Anneboina & Kavi Kumar, 2017). The Western Indian Ocean region has vast marine resources. This Paper revealed the linkage between fisheries sector management, livelihoods, and poverty alleviation. This region implemented the Poverty Reduction Strategies Approach (PRA) to incorporated poverty. The Indian Government provides reorganization of sector importance and budgetary support to promoting importance to the fishery sector. (Walmsley, Purvis & Ninnes, 2006)

This Article focused on Governability challenges in sustaining small-scale fisheries of Cochin Backwater in India. The southernmost state of India is known as Cochin backwater. This area provides a fishing area for many small-scale fishing communities living in the vicinity. Cochin government needs to create an equal platform for backwater fisheries and promote SSF, and the fisheries make a significant contribution to poverty reduction in the Cochin region. (Sathiyapalan & George, 2015)

RESEARCH OBJECTIVES

1. To determine the Fish Farming Business's contribution to poverty alleviation in India and evaluate the states where fisheries have immense potential.
2. To identify future possibilities in fisheries to achieve sustainable development goals.

RESEARCH METHODOLOGY

The assessment is focused on an in-depth evaluation of the existing and current evidence related to fish production and aquaculture activities and their contribution to India's economic growth and employment generation. The Article used secondary data from different Fisheries organizations like FAO, DFID, DAHD, ICAR, GOI, Annual reports, state fisheries department, news, Fish world bank, etc. for evaluation research statement. The aim was to compile and review India's existing literature and fisheries profile that provides a rigorous assessment of the scientific quality of the evidence provided in this literature and ensure that examination was completed transparently and consistently. Despite new narratives that highlight the potential contribution of aquaculture and capture fisheries to poverty alleviation. (HLPE, 2014)

ANALYSIS AND INTERPRETATION

The export of marine products reached 18,856.26 to 45,106.89 from 2012-18. It shows the potential of fishery business in terms of employment generation. The below table shows that Fisheries production increases by 2.39 % in the last six years from 2012-18. He reported that Fish Production increased from 5.66 million metric tonnes (2.84 million metric tonnes for Inland Fisheries Capture and 2.82 million metric tonnes for marine Fisheries Capture) in 2000-2001 to 12.61 million metric tonnes (8.92 million metric tonnes Inland Marine Fisheries and 3.68 Million metric tonnes for Marine Capture Fisheries) in 2017-18. (GOI, 2018)

Top Five Fisheries States in In India during 2017-18			
States	Total in lakhtonnes	The trend in Export of marine products (cr.)	
Andhra Pradesh	34.5	2012 -13	18,856.26
West Bengal	17.42	2013 -14	30,213.26
Gujarat	8.35	2014 -15	33,441.61
Kerala	6.85	2015 -16	30,420.83
Tamil Nadu	6.82	2016 -17	37,870.90
Total Production in India	125.9	2017 -18	45,106.89

Table 2: (GOI, 2018)

According to the above table, Andhra Pradesh captured 34.5 lakh tonnes of fish, topped in Indian states, and followed by West Bengal with 17.42 lakh tonnes, Gujrat 8.35 lakh tonnes, Kerala 6.85, and Tamil Nadu 6.85 lakh tonnes of fish.

Andhra Pradesh retained the topped position in Inland fisheries, and Gujrat, with 7.01 lakh tonnes, had the top place in marine capture. It shows fast and steady growth in the export of fish products in India. The export of marine fish products registered an annual increase of 19.11% in value and 21.35% in volume. The Fisheries sector is a significant contributor to the GSDP of the Andhra Pradesh is 6.04% over the last decade, total fish production in 2005-06 has more than doubled from 8.14 lakh to 27.66 lakh metric tonnes 2016-2017. Andhra Pradesh state is first in total fish production and Aquaculture. The state contributes 22% of total fish production and 70% of Shrimp production in India. Andhra Pradesh state blessed with the potential of coastline, 555 marine fishermen villages, 350 fish landing centers, 31,147 fishing crafts, 64 processing plants, 357 hatcheries, 65 cold storage, and 234 aqua labs. It provides employment opportunities to nearby 14.5 lakh directly and indirectly in the state. The fish production increased from 19.64 lakh tonnes in 2014-15 to 34.49 lakh tonnes in 2017-18, with an average annual growth rate of 19%. (Government of Andhra Pradesh [GOAP], 2020)

The West Bengal fishers directly involved in capturing fisheries with the department of fisheries' initiative helped upgrade their socioeconomic status to overcome poverty. The WB marine growth rate is less than the Inland sector, and 90% of the population wishes to see fish in their primary food. (Singh, Pandey and Sinha, 2011) In Fiscal 2018, the east Indian state of West Bengal produced 1.6 million tonnes of fish, a decrease from the preceding year. However, production was increased around the coast from approximately 1.4 million tonnes in the 2009 financial year.

Gujarat state is at the top position in marine capture as-is on India's west coast, and it covers 1/5th part of India along the coast and is an exclusive economic zone. It contributes about 20% of total marine production. There are profuse Inland fisheries opportunities in Gujarat because of 6 large reservoirs, small water bodies and the Sardar Sarovar command area. (Government of Gujrat [GOG], 2020) Fisheries production was around 826.74 thousand tonnes in Gujrat's western state during the fiscal year 2018, up from about 812 thousand metric tonnes in the previous year. In the last decade, the total volume production has improved throughout the state.

The Kerala fishing population is estimated at 12 lakhs, including 8.46 lakhs in the marine sector and 3.2 inland business lakhs. The number of active anglers is projected to

be 2,54, of which 1.91 lakhs are in the maritime industry and 0.42 lakh in the inland sector.

Tamil Nadu ranks 4th in the country production of fish. During 2018-2019, Tamil Nadu shipped 1,28,845 M.T. of marine products and received a foreign exchange of 5591.49 crores.

FINDINGS

India Fisheries sector faces high perishability of stored fish and without proper preservation methods becomes a significant constraining problem towards increased productivity. This sector encountered difficulties obtaining funds from the Government and financial institute to expand its fisheries business (Rahaman, Bera & Ananth, 2013). Grassroot level training is essential for the scientific development of fish farming and the rural community's upliftment. To promote GOI as a fisheries research institute and training center are CIFNET, NIFPHATT, CICEF, FSI, and CAA; this helps provide technical training in fish processing and other activities. Andhra Pradesh, West Bengal, Gujrat, Kerala, and Tamil Nadu are the top five fish producing states in India. Those who can expand production and fish capture by Fish Farming Business contribute to the Indian economy, provide more people employment and achieve sustainable development goals. The findings show that Fish Farming Business has a positive impact on India's GDP, but it needs much improvement to affect poverty on a large scale.

CONCLUSION

This paper evaluates the existing evidence of how and what extent of Fish Farming Business contributes to alleviating India's poverty. India's Government is going to invest Rs. 25000 Crores in the next five years for fisheries development. The aim is to enhance infrastructure and increase the production of fisheries in India. Fisheries are a vital source of food security and employment because they contribute to economic growth, increase Gross Domestic Income (GDI), and fight against poverty. The sector has immense potential to double the farmer's income by 2025. We hope future work should ensure sustainable exploitation, the export of fisheries, management, work policy development, and socioeconomic uplift of fishers.

SUGGESTIONS

The fisheries sector's ultimate goal is to achieve sustainable development goals and reduce poverty in India. The Paper, therefore, suggests that: (i) improve production, processing, storage, transport, and marketing of fish products from capture and culture fisheries, (ii) conservation natural

resources and achieve sustainable management, (iii) provide modern infrastructure mechanism for the fishing, and, (iv) generate sustainable employment and train, empower women in the fisheries sector.

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