



## Research Note

# Rural Women Entrepreneurship through Value Addition of Fish: A Case Study

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A gender perspective on post harvest fisheries is important because women are often the primary work force in these activities. One of the ways to mainstream them is by promoting entrepreneurship. There has been a shift in consumers demand towards convenience foods like ready-to-eat products and to tap this opportunity, it is necessary to build the capacity of fisherwomen by updating them with the latest technologies in value addition. The present paper discusses a case study on development of a model of rural women entrepreneurship through value addition of fish in Odisha. This involved occupational needs assessment, the study of market potential of products through consumer survey, popularisation of the value-added products, master trainers development, appropriate capacity building, input support, enabling procurement of licenses and market linkages. As a result of the gender inclusive interventions, a group of rural women ventured into the business of production and sale of value-added fish products successfully despite the trying period of the pandemic of COVID 19. Through the skill and knowledge upgradation and the required handholding, the project motivated the rural women enough to initiate small scale enterprise to further enhance their quality of living through increased income.

**Keywords:** Value addition of fish, gender, entrepreneurship, livelihood

Throughout the world, women's most prominent role in fisheries is in post-harvest, processing and

marketing. In India, women form 90% of the workforce who are involved in curing/ processing. A study showed that 90-95% of coastal fisherwomen of Odisha are active dry fish producers and vendors (Singh et al., 2013). Women also form about 90% of the labour force in seafood processing industry but there is a huge gender disparity in the wages being paid to them. Mechanisation in the sector is also contributing to the displacement of women from marketing of fish leading to loss of livelihood options (Nayak, 1992). Hence, it is important to provide alternate as well as additional livelihood options for the fisherwomen which will make a positive impact on their earnings and quality of life. Projects or programmes need to follow gender transformative approach together with technical innovations such as post harvest processing technologies, to achieve the much coveted target of gender equality and women's empowerment (Gopal et al., 2020).

Value addition of food plays a major role in employment generation, entrepreneur ventures and boosting exports from a country. In recent years, the popularity of fish products in the diet has increased due to the international recommendation to lower the total level of dietary fat (Akter et al., 2013). Also, the economic growth and urbanization have resulted in changing consumption pattern to processed and high value products. Value addition in fish could range from a simple display of hygienically dressed and iced fish to preparation of dry fish, mince based ready-to-cook or ready-to-eat products. There is an increasing trend in the utilization of value-added fish products as evidenced by their availability in modern super markets as well as malls which are becoming popular. A report suggests that around 41% respondents in a con-

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sumer preference survey in northern Indian States were willing to pay upto 20% extra for value added products from fish (Sabat et al., 2008). Quality of the product is the most important attribute influencing consumer behaviour in Kerala and they exhibited positive willingness to pay for value added fish products of good quality (Geethalekshmi et al., 2013). But fisherwomen remain unaware of these changing consumer needs and their access to the advanced technologies is limited. One of the effective means to bring the fisherwomen to the mainstream is to equip them with formal training in advanced and hygienic processing techniques, marketing and development of entrepreneurial skills. Empowerment of fisherwomen and formation of self-help groups also have led to the increased small scale level production of value-added items in recent times. Selvaganapathy & Krishnan (2015) observe that production of fish value added items have been helping in livelihood enhancement of fisherwomen of Nagapattinam District in Tamil Nadu, India. Among the fisherwomen of Kerala, value added fish producers were found better empowered (46.78%), followed by retailers (45.09%), vendors (43.92%) and dry fish makers (43.42%) (Salim & Geetha, 2013).

The present case study discusses the development of a model for entrepreneurship development among fisherwomen that was taken up as part of a project funded by Department of Scientific and Industrial Research (DSIR) and implemented at ICAR-Central Institute for Women in Agriculture, Bhubaneswar during 2018-21 for building capacities of fisherwomen of Puri district of Odisha in value addition and to enhance their entrepreneurial skills, besides assessing the consumer preference of value added fish products.

The study was conducted in the Astranaga and Puri Sadar blocks of Puri District of Odisha. Primary data were collected from 200 fisherwomen through focussed group discussions, stakeholder meetings and in-depth household surveys using semi-structured interview schedules to document the needs and perceptions of women on fish processing. The women were selected for skill training based on their socio-economic status, level of participation in fish processing, motivation and willingness to adopt new processing technologies. Forty women from 20 SHGs were selected as master trainers who will be future resource persons or point of contact for further trainings. The master trainers were given the

skill trainings on the aspects of hygienic handling of fish, solar drying of fish, preparation of value-added products like prawn pickle, fish cutlets, fish momos, fish papad etc who further trained the producer groups in the villages. They were also trained on the importance of attractive packaging and labelling of their products, entrepreneurship development, management, branding & marketing and group dynamics by faculties from organizations which provide such capacity building programmes. Subsequently facilitation for enterprise development on value added fish products was given to interested women SHG groups through provision of critical inputs, obtaining licenses and market linkage of the products.

Market surveys, packaging and advertising are important areas which are necessary for determining consumer acceptance. Consumer preference for the value-added fish products like hygienic dry fish, fish cutlet, fish momos, fish pickle, fish papad and prawn chutney powder was studied by conducting a survey of 150 consumers in the peri-urban areas of Bhubaneswar.

Perceiving occupational needs of women is important in planning and implementation of gender sensitive policies and programmes. In the present study, it was observed that credit facility and safeguarding against unfair trading practices were perceived as the most important occupational needs by the fisherwomen (>90%) for them to remain in the profession. In order to adopt value addition of fish as an entrepreneurial option, the fisherwomen expressed their need to be trained in the area. More than half of the women needed an assurance towards a sustainable market linkage to adopt value addition of fish as an enterprise option.

Consumer preference for any product is determined by a combination of various factors related to marketing, personal preferences and psychology of the consumer etc. (Jeyanthi et al., 2017). There is only a limited presence of branded and hygienically packed value-added fish products in the local market of Odisha, as opined by 33% of respondents in a consumer survey. Twenty percent of the consumers suggested that they are a good alternative to similar meat products. Consumers (30-36%) were willing to buy the value-added products if they are safe and available locally at reasonable prices. As per the consumer preference study, taste, price, appearance and health factor were the most

important attributes determining the consumer acceptability of value-added fish products (Tanuja et al., 2020). Hence it is important that the products should be produced by the fisherwomen in a hygienic way and marketed in attractive packaging at a reasonable price.

As an impact of the project, a group of 12 interested women belonging to an SHG group from Astaranga, Puri ventured into starting the enterprise on value added fish products after gaining the necessary skills and knowledge on hygienic production, packing, labelling and marketing of the products. The concept of developing master trainers improved the impact of trainings imparted. Master trainers being members of the women SHGs could deliver the trainings more effectively and onsite in the villages. The series of hands-on trainings reinforced their confidence in their capabilities to become successful entrepreneurs. Market linkage is one of the most important factors for success and sustainability of any enterprise. The creation of market linkage with a retail fish supply chain, which operated in a PPP mode helped the penetration of the product in the urban market (Fig. 1). Food and trade license were one of the most important hurdles that had to be crossed by the women for successful marketing of the products in urban areas. The facilitation for online procurement of licenses helped the women to tide over the obstacles posed by the COVID-19 pandemic. Branding of their product in the name "Fishlikes" gave the value-added fish products prepared by fisherwomen a unique distinction among the urban consumers of Odisha as it was a first of its kind of initiative in Odisha. The marketing initiative which started with one retail store spread to 12 more stores in Odisha and is spreading its wings to the neighbouring states of West Bengal. Hence in order to bring about a significant impact on the livelihood of fisherwomen through entrepreneurship in value added fish products, it is important to mobilize them, motivate them, equip them with necessary production, branding, packaging and marketing skills, facilitate in obtaining the necessary legal licenses, create linkage with appropriate government schemes for credit and subsidies and sustainable market linkage.

The skill and knowledge upgradation of fisherwomen motivated them enough to initiate the small-scale enterprise in order to further enhance their income. With the shift in consumers' demand to ready to eat and hygienic products, value added products



Fig. 1. Market linkage with Retail fish Supply Chain "Falcon Chilka Fresh"

preparation from fish holds potential. Strategies like promoting fish value added products and by products will provide the much-needed alternative livelihood options for fisher women. There are several schemes implemented by both Central and State Governments for promoting entrepreneurship among women and creating awareness and facilitating them to avail these schemes will enable women entrepreneurship in rural areas.

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