



## GENDER MAINSTREAMING IN AQUACULTURE ICAR-CIFA'S EXPERIENCES

Involvement of rural women in aquaculture production activities including composite carp culture, seed rearing and integrated fish farming has been advocated for their socio-economic upliftment and generation of self-employment. However, lack of focus coupled with cultural and social constraints limit participation of women in training and empowerment. Appropriate methods in aquaculture extension coupled with appropriate technologies can draw rural women towards aquaculture practice in a sustainable way. The ICAR-Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar has operated several transfer of technology projects during the last 30 years. While few projects were exclusively benefitted farm women others adopted substantial number of women as beneficiaries. A brief account of the transfer of technology projects that have contributed to women empowerment is given below.

**1987:** 'S & T for Women' was operated in five villages involving fifty farm women in fish farming. 'Successional aquaculture' evolved for steady stream of income round year.

**1992:** Women in Aquaculture (in collaboration with XIM, Bhubaneswar) benefitted 300 tribal women from three backward districts of Odisha. Involvement of women in aquaculture proved to be beneficial in improving socio-economic status. Indian Major carp spawn were reared in seven small backyard and kitchen ponds measuring 0.05 - 2.0 hawater area in four villages of Keonjhar district of Odisha by tribal women.

**1999:** Institute Village Linkage Programme (IVLP) was operated in eleven villages around CIFA for technology assessment and refinement through on farm research. Common carp breeding and grow out culture was promoted among women.

**1999:** Aquaculture development in NEH states. Aquaculture development work was taken up in Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. Grow out carp culture, integrated fish farming, ornamental fish breeding and culture technologies were demonstrated. Hatcheries for carps and magur were established. Pilot scale demonstration on cage culture conducted. A large number of farm women were benefitted through this intervention.

**2000:** Under Jai Vigyan National Science and Technology Mission, enhancing freshwater fish production towards ensuring household food and nutrition security was the focus. Potential of freshwater aquaculture in non-conventional areas viz., tribal, hilly and backward areas explored. A group of tribal women from Burumpal, Bastar Burumpal, harvested around 2.0 ton of fish from 1.4 ha waterbody, where nothing could be produced earlier.

**2006:** Economic and livelihood development of SC/ST population through freshwater aquaculture technologies was operated in two tribal dominated districts in Odisha Keonjhar and Kendrapada. Technologies i.e., Carp seed production, carp culture and Integrated fish farming were promoted. Average fish yield in adopted ponds in Keonjhar increased four folds.

**2009:** Sustainable livelihood improvement through integrated freshwater aquaculture, horticulture and livestock development was operated in Mayurbhanj, Keonjhar and Sambalpur districts of Odisha in a consortia mode with many institutes. Over 3000 farm families were benefitted. An Integrated development approach was adopted involving freshwater aquaculture, poultry and horticulture.

**2009:** Transfer of technology of composite carp culture through demonstration among SC/ST women in Boudh and Purulia district. The project was carried out in Kashipore block of Purulia (West Bengal) and Kantamal block of Boudh (Odisha). 200 tribal women in two districts are benefitted. The mean fish yield of adopted ponds rose to 795.98 kg/ha in 2010-11 from pre-adoption production level of 378.79 kg/ha in 6-8 months. Average income from the adopted ponds was worked out to be Rs 42513.47 per ha.

**2012:** Mainstreaming gender concerns in freshwater aquaculture development- an action research. This project was implemented in Khordha and Puri districts of Odisha involving 161 women beneficiaries. Freshwater aquaculture technologies e.g., carp seed rearing and culture, value addition of fish were disseminated. Development in the socioeconomic impact was reflected in economic upliftment, employment generation and empowerment of women.

During the three decades, considerable amount of attention has been paid by ICAR-CIFA towards socio-economic development of women. A wide range of aquaculture technologies e.g., carp breeding, seed rearing, composite culture, ornamental fish breeding and culture, integrated fish farming etc. have been popularized for adoption by women. Recent years have also witnessed increased number of women participating in ICAR-CIFA's training programme as well as visiting the Institute for seeking information on aquaculture technologies.

