

# Women Empowerment in Agriculture

## Empowering rural women through small-scale Freshwater ornamental fish culture

### Background:

Ornamental fish production is one of the sunrise sectors growing at an annual rate of 14%. Currently about 280 exotic species and about 100 indigenous species of ornamental fish are being produced and traded. India's share in ornamental fish export is only 1% of the total traded value of 6 billion US\$ per annum. Tremendous scope exists for production and domestic trade as well as export



of ornamental fishes. The ornamental fish industry has enormous potential in tropical countries. The demands for ornamental fishes are increasing rapidly. The huge variety and potentiality of indigenous and exotic ornamental fishes make the trade stronger. Considering the



proven success of women in development of homestead enterprise in farming of ornamental fish in different parts of the country, due emphasis was given for creation of Self Help Groups for such enterprise. KVK Murshidabad took an initiative in 2014 to support 14 nos. of house women's to start small scale ornamental fish culture unit at Balarampur, Palasbati and Hossain Nagar village under Bhagwangola-I block in West Bengal. Initially these house women's were engaged in biri making and credit functions. The SMS of Fishery Science of KVK Murshidabad took interest to motivate the women on the opportunities of ornamental fish culture for business purpose. In this regard, a total of 14 nos. of unemployed village women were selected for popularizing such enterprise in the village.

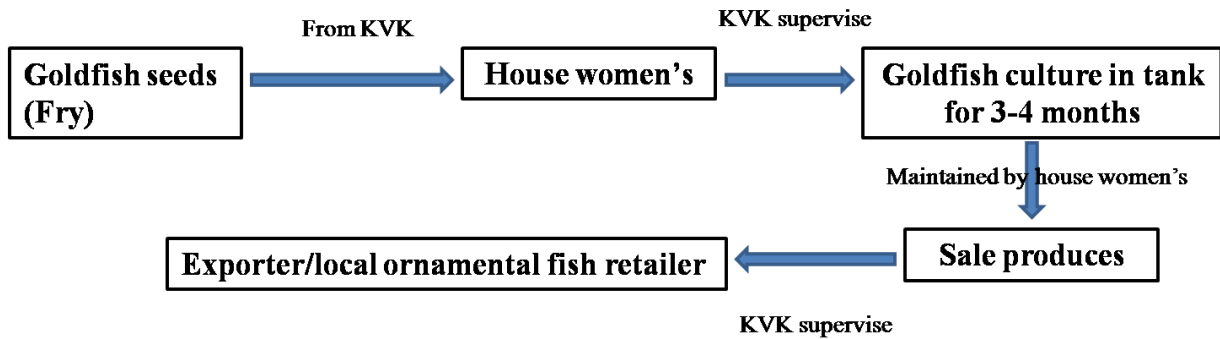
### Prerequisites for ornamental fish culture:

- For small scale culture, a minimum of 6x3x1.5 ft tank is required.
- A shade facility is required above the cement tanks and anti-bird nets are required above the earthen ponds for breeding and rearing of ornamental fishes.
- Sufficient water and electricity supply at the breeding and rearing units are important.
- Farm made aqua pellets can be prepared by using different agricultural byproducts.
- Live food like Zooplankton, Tubifex, Blood worms, Chopped Earthworms etc. are also very much essential for brood fishes and larvae.
- For proper marketing of fish, better communication facility (roadways/ rail/ airport) is required nearby to the farm

### KVK intervention:

These house women were facilitated to develop themselves as entrepreneurs, through several capacity building programmes and trainings, with technical support from KVK, Murshidabad in the year 2014. The training ensured a common platform for all stakeholders. The first round of training focused on aspects of different culture process, maintaining the good water quality, feeding habit of different species, disease management. KVK, Murshidabad also provided hands on training on how to make aquarium and setting of aquarium accessories etc.

**Production cycle:**



**Outcome:**

As per the record in April 2017, the farm women are producing only goldfishes due to hardy and required very small area. They culture this species in cement tanks or in low cost polythene tanks. For rearing of 500-700 nos. fry of goldfish, the farm women are using 6x3x1.5 ft tank. They generally use wheat flour, groundnut oil cake, mustard oil cake and pelleted feed (26% protein) to feed their goldfish fry.

**Table 1: Feed requirements for rearing 500 nos. of goldfish fry**

Feed Ingredients	Quantity/day	Duration (day)
Wheat flour/groundnut oil cake	15g	First 15 days
Wheat flour/groundnut oil cake	30g	Next 15 days
Mustard oil cake/pelleted feed	50g	Next 15 days
Mustard oil cake/pelleted feed	100g	Next 15 days
Mustard oil cake/pelleted feed	150g	Next 15 days
Mustard oil cake/pelleted feed	210 g	Next 15 days



**Table 2: Production cost of 500 nos. of goldfish fry**

Categories	Rate (Rs.)	Amount (Rs.)
Seed cost	Rs. 0.35/pc	175.0
Feeding cost	Rs. 26/kg	216.0
Medicine (Methylene blue)		50.0
<b>Total</b>		<b>441.00</b>

**Table 3: Income from 500 nos. of goldfish fry**

Categories	Survival rate (%)	Rate (Rs.)	Income (Rs.)
Goldfishes	80	Rs. 10.0/pc	4000.00

**Impact:**

The farmers can earn more than Rs. 1000 per month after 80-90 days of rearing of **500 nos. of goldfish fry**. They sell their products in local Jiaganj ornamental fish seller who are linked with an exporter.





## Embroidery work: A means of family income

**Name** :Mrs.Devanti Devi

**Address** : Village- Basantpur, District- Siwan, Bihar

Mrs.Devanti Devi married in middle class family where ladies were not allowed to go outside for earning. Being in joint family she had not enough money to send their children to good School. In such an adverse condition she contacted women around with similar sentiments and decided to earn money by stitching and managed Rs. 300 per month. Later, the numbers of women in group swelled gradually. In 2009, she came in contact with Siwan KVK and joined training in embroidery and started her embroidery business along with stitching. Today, this small group expanded in a network of ten groups who are engaged in making embroidered bed sheet, pillow cover, tablecloth, and curtains. Recently, Home Scientist from Siwan KVK visited some of the Self Help Groups and recorded the following:-

**Sudha Self Help Group-** Through this business every individual member is earning about Rs.2500-3000/month.

**Adarsh Self Help Group-**Kanti Devi of this group is engaged with Bed sheet Appliqué works. She takes three days in making one bed sheet and earns Rs. 3000-4000 per month. She is also providing training to rural girls.

**BasantBootique and Kashidakari-** After taking training from Mrs.Devanti Devi, the owner of this Bootique is running a training centre of embroidery through MahilaVikashSansthanand is providing training to 10-15 girls per 3 months and is selling their products by their trainees on no profit no loss basis made.

In this way, Mrs.Devanti Devi not only managed to earn money herself but through embroidery also she helped many rural women to increase their family income. Through the intervention of KVK Siwan, NABARD has also given financial support to spread this embroidery business in the surrounding areas. At present, her son is an engineer and she has become one of the respected women around Basantpur area of the district.



## Women contribution in livelihood improvement

**Name** : Smt. NishaKumari

**Address** : Village- Bhataulia, Block- Saraiya, District- Muzaffarpur, Bihar

Smt. NishaKumari, a laborious and innovative farm women, had limited resource and infrastructure for her livelihood. She came in contact with KVKMuzaffarpurScientists threeyear back with her husband Mr.Avinash Kumar. They were continuously getting technical support and guidance from KVK Scientists. She has taken several trainings conducted by the KVK in different disciplineslike crop production, bee-keeping, vermi-composting, animal husbandry, preservation of fruits and vegetables, mushroom cultivation etc. She adopted the practice of protective cultivation of flowers and vegetables, integrated farming system for productivity enhancement and income generation, mushroom cultivation, bee-keeping etc. She gained faith of women and rural youth and formedself-help group (SHG) for marketing different agricultural production systems. She empowered local women for income generation throughmushroomcultivation. The women themselves used to manage all the agricultural works. Some implements of drudgery reduction like weeder, spreader, sheller etc. were being used. From her agricultural land, she was earning Rs 4.0-5.0 lakh per annum from different crops i.e. rice, wheat, maize, sweet corn potato, green gram, redgram, black gram, rajmah, elephant foot yam, orchard of mango, litchi, papaya, banana, bamboo and agro-forestry, turmeric, ginger in the shade of trees in addition to vermicompost, mushroom, beehives etc. She has become a role model for women farmers in the district.

