

INTEGRATED FISH FARMING WITH POULTRY (ODISHA): MODEL SCHEME

1. Introduction

Integrated Fish Farming with Poultry is a low-input, high-output model that synergizes aquaculture and backyard poultry production. This scheme is designed to increase farmers' income through optimal resource utilization, minimal waste, and diversified production.

2. Objectives

- Promote integrated, sustainable, and profitable farming systems.
- Increase income of small and marginal farmers.
- Utilize poultry droppings as organic manure in fish ponds.
- Improve nutritional security by producing fish, eggs, and meat.
- Create rural employment and reduce migration.

3. Target Group

- Small and marginal farmers
- Women SHGs and Farmer Producer Organizations (FPOs)
- Scheduled Caste (SC)/Scheduled Tribe (ST) beneficiaries
- Unemployed rural youth

4. Location Suitability (Odisha)

- Districts: Mayurbhanj, Kendrapara, Ganjam, Khurda, Bargarh, Koraput, etc.
- Criteria: Availability of water bodies, access to road, markets, and electricity.

5. Unit Size

- **Fish Pond:** 0.5 hectare (5000 sq. meters)
- **Poultry Shed:** 300 birds (dual-purpose/desi breed or Vanaraja)

6. Components of the Scheme

Component	Description
Pond Preparation	Desilting, liming, bund construction, inlet/outlet structures
Fish Fingerlings	Indian Major Carps: Rohu, Catla, Mrigal or local IMC combinations

Component	Description
Poultry Shed Construction	Elevated shed over bund area/pond dyke with bamboo/brick structure
Poultry Birds (chicks)	300 dual-purpose/desi chicks with vaccination and feeding arrangements
Feed and Medicines	Fish feed, poultry feed, lime, probiotics, vaccines, etc.
Manure Management	Use of poultry droppings for pond fertilization (5-10 kg/day)
Training and Capacity Building	On-farm and off-farm training for farmers
Marketing Linkages	Linking with FPOs, mandi, cold chains, and digital platforms

7. Financial Estimates (1-Year Model)

Particulars	Cost (INR)
Pond preparation & renovation	30,000
Fish seed (5000 @ ₹1)	5,000
Fish feed (₹20/kg for 1200 kg)	24,000
Poultry shed construction	45,000
300 chicks (₹50/chick)	15,000
Poultry feed (₹20/kg for 1200 kg)	24,000
Medicines & contingency	5,000
Training & extension	2,000
Total Cost	₹150,000

8. Expected Returns (1-Year)

Output	Value (INR)
Fish production (1000 kg @ ₹120/kg)	₹120,000

Output	Value (INR)
Poultry (250 birds @ ₹250)	₹62,500
Eggs (100 birds laying avg. 100 eggs @ ₹5/egg)	₹50,000
Total Gross Return	₹232,500
Net Income (After expenses)	₹82,500

9. Subsidy and Support (Example)

Agency	Support Provided
NABARD	Capital subsidy (up to 40%) under IFS
Fisheries & Animal Resources Dept. (Odisha)	Training, extension, input supply
MGNREGS/State Horticulture Mission	Pond digging under convergence
Women SHG Mission (WAGE or Mission Shakti)	Group support for credit and market linkages

10. Sustainability Features

- Reduces feed cost using poultry droppings in fish pond.
- Organic production: fish grown without chemical fertilizers.
- Employment for women and youth in rural households.
- Encourages diversification to reduce risk.

11. Suggested Implementation Partners

- **Krishi Vigyan Kendras (KVKs)**
- **ICAR-CIFA (Bhubaneswar)**
- **Odisha State Fisheries Department**
- **Livelihood Missions (OLM, ORMAS)**
- **NGOs and SHG Federations**
- **Odisha Livestock Resources Development Society (OLRDS)**

12. Monitoring Indicators

- Survival rate of fish and poultry
- Income earned by beneficiaries
- Quality and quantity of fish production
- Participation of women and SC/ST groups
- Number of farmers linked to markets

13. Recommendations

- Start with 100 pilot units in aspirational and tribal districts.
- Use demo farms and exposure visits to scale adoption.
- Enable access to easy working capital via banks/SHG loans.
- Encourage cluster-based farming with FPOs for aggregation and marketing.