

Existing problems of fish farming in Indian agriculture

Hiralal Jana

Department of Agricultural Extension, College of Agriculture, Bidhan Chandra Krishi
Viswavidyalaya, Agricultural Farm, BURDWAN (W.B.) INDIA

(Email : janahiralal@yahoo.in)

Fisheries in India, is yet another important economic activity especially creating employment in rural sector. This flourishing sector has varied resources and potentials. Only after independence, fisheries together with agriculture have been recognized as a vital sector with regards to generating income. The vibrancy of the sector can be visualized by the eleven fold increase that India achieved in fish production in just six decades, *i.e.* from 0.75 million tonnes in 1950-51 to 9.6 million tonnes during 2012-13. This resulted in an unparalleled average annual growth rate of over 4.5 per cent over the years which have placed the country on the forefront of global fish production, only after China. Besides meeting the domestic needs, the dependence of over 14.5 million people on fisheries activities for their livelihood and foreign exchange earnings to the tune of US \$ 3.51 billion (2012-13) from fish and fisheries products, amply justifies the importance of the sector on the country's economy and in livelihood security. Fish farming is a type of business that requires perseverance and adept skills. The first thing to be considered in order to be successful in this kind of business is to be aware of problems with fish farming.

Presently, fisheries sector is facing many problems. The problems are the following:

Problems of ocean fish farming :

- Farming fish can make fish prices go down because farms produce a lot of fish, all the time, consistently flooding the market. Commercial fishermen often lose their jobs when there is farming of the species that they normally catch in the wild.

- In case of ocean fish farming, fish wastes, excess food, fish escapes, antibiotics and various chemicals from fish farms can all result in water pollution and harm surrounding habitats by poisoning wildlife and causing other disturbances.

- Industries, is also a factor that can destroy the fish farming. It also contributes pollution that could contaminate the water.

- Escapes are also considered as one of the main problems of fish farming.

- In some fish farms, farmers fed fish of wild fish

which is very vital part of marine ecosystem.

- Factory fish farms tend to grow top of the food chain carnivorous fish that eat small, wild fish –it can take several pounds of wild fish to grow one pound of farmed fish. This undermines the wild marine food chain. Factory fish farming which is also known as aquaculture is generally big, dirty and dangerous, just like factory farming on land.

- Factory fish farms may interfere with the livelihoods of commercial and recreational fishermen by displacing them from traditional fishing grounds or harming wild fish populations.

- Fish produced at factory fish farms can have higher levels of contaminants than wild fish, which may lead to health risks for consumers, and the use of antibiotics on fish farms can cause drug-resistant bacteria to develop, which may then be passed on to humans.

- Interbreeding is to occur as a result of escapes, such genes could be incorporated into the wild gene pool and possibly diminish the vigour of the wild population.

- The density of fishes in farms is variable, but the farmer is motivated to pack them at high densities to increase profits. This aggravates the problems of pollution and disease and causes stress on the fish that leads to inferior product quality.

- In ocean farming, waste collects on the ocean bottom, damaging or eliminating bottom-dwelling life. Waste can also decrease dissolve oxygen levels in the water column, putting further pressure on wild animals.

- Aquaculture is becoming a significant threat to coastal ecosystems. About 20 per cent of mangrove forests have been destroyed since 1980, partly due to shrimp farming.

- Most of the shrimp farms are abandoned within a decade because of the toxin build-up and nutrient loss.

- Sea lice are the primary parasitic problem for finfish in aquaculture, high numbers causing widespread skin erosion and haemorrhaging, gill congestion, and increased mucus production.

- In ocean farming, deposition on nets and cages restrict water flow causes risk of water degradation.

- The cost of inputs per unit of fish weight is higher than in extensive farming, especially because of the high cost of fish feed.

- Netting involves regular and labour intensive cleaning.

- In ocean farming, the transfer of disease organisms from the wild fish to the aquaculture fish is an ever-present risk.

- The very large number of fish kept long-term in a single location contributes to habitat destruction of the nearby areas.

Problems of inland fish farming :

Social problems :

- Norms and religious values excluded women or other groups from participation in certain activities.

- Lack of family encouragement considering lower prestigious occupation.

- Inadequate family labour

- Multiple use of pond water especially domestic purposes restrict the commercial fish farming.

- Multiple ownership of land is the cause of dispute and opinion diversification.

- Disputed ownership of water areas.

- Poaching from fish pond.

- Poisoning in fish pond due to jealousy or revenge.

- Lack of contract farming

- Presence of middlemen in the fish trade who reduce the profit margin of fish farmers.

Economical problems :

- High costs of cultural inputs especially fish feed.

- Lack of financial assistance

- Inadequate loan from financial agencies

- Lack of remunerative price for the commodity

- Fluctuating fish prices in market.

- Small size of ponds (majority of farmers are small and marginal farmers).

- Lack of regulated market facilities

- Too much competition in fishery business.

Technological problems :

- Lack of value addition for enhancing profit margin.

- The market for processed fish is limited in the domestic market and is restricted to fish pickles, papads, cutlets and the like.

- Fish production technology is a complex technology.

- Lack of timely availability of inputs nearby.

- Lack of quality feed in local market.

- Lack of location specific improved technology.

- Inadequate knowledge and skill about scientific

fish farm management.

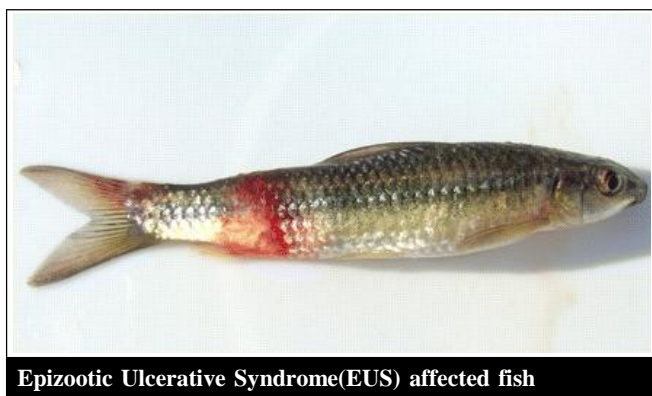
- Shortage of water for grows out ponds. One of the largest problems with freshwater pisciculture is that it can use a million gallons of water per acre (about 1 m³ of water per m²) each year. Extended purification systems allow for the reuse (recycling) of local water.

- Lack of alternative arrangements of water supply from a deep tubewell or irrigation canal or from perennial sources like spring, stream, river etc. in dry season in most of the places of our country.

- Shortage of quality seed to stock in the ponds

- Shortage of manure and fertilizer for ponds.

Infestation of fish diseases specially Epizootic Ulcerative Syndrome (EUS). Popularly known as EUS and widely considered as cancer. EUS is also known as red spot disease (RSD) of fish.



Epizootic Ulcerative Syndrome(EUS) affected fish

Infrastructural and promotional problems :

- Complicated procedure to get loan involves lot of paper works.

- Lack of suitable policies of govt. for the development of fishery sector.

- Absence of an enforcement agency to monitor the supply of good quality seeds and feeds

- Absence of synchronized farming approach which makes a conducive environment.

- Lack of sufficient extension activities such as fair, demonstration, meeting etc.

- Lack of proper transport and marketing facilities for the products

- Lack of adequate financial institution in the locality.

- Inadequate labour force to perform different activities in this profession.

- Insurance facilities are not available for fishermen.

- Lack of efficient marketing channel from point

Contd... p. 109