

## Farming of Freshwater Prawns – Lessons from India

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Freshwater prawn farming in India has been in the midst of fluctuating spells of production and profitability for the last few years. Farming and wild capture of the giant freshwater prawn (*Macrobrachium rosenbergii*) and the Monsoon river prawn (*M. malcolmsonii*) contribute to the total freshwater prawn production in India, which is presently down by more than 70% of the peak production in 2005. This is in contrast to the prawn farming sector progressing well in most other parts of the world.

There are many reasons attributed to this downfall, including poor quality of the seed stocked presumably because of poor genetic quality of the broodstock used, pond water quality issues, diseases, poor growth in ponds, and increased cost of production on account of feed, labour, and the mandatory certification requirements. Inbreeding and poor genetic quality of prawn broodstock, coupled with improper/inadequate mixing of good quality broodstock used for seed production, have been the recent issues in India and elsewhere. A significant impact of these factors was experienced in the State (Province) of Andhra Pradesh. Seasonal scarcity and poor quality of water due to erratic climatic conditions were believed to be the main trigger for diseases, including the White Muscle Disease in hatcheries and farms.

There has been an increased awareness on the concept of traceability in seafood, produced and exported from India. The recent introduction and mandatory enforcement of food safety measures by way of certification - the onus of which is on the producer - has brought in an added cost of production. Giant freshwater prawn, which may need repeated culling to harvest small quantities, is particularly prone to this cost escalation. While this is advantageous to stimulate profitable marketing in the long term, increased cost of feed, labour, etc., together with poor yield and lower price for the produce, is affecting profitability.

Broodstock selection, which should also include genetic considerations, is the key to the production of good quality postlarvae for farming. Efforts to produce all-male *M. rosenbergii* juveniles by biotechnological interventions are presently underway in Andhra Pradesh; this has the potential to steer future progress in this sector. The Indian Organic Aquaculture Project, which involves organic paddy and giant freshwater prawn farming, is a major attempt to revive the sector in India, although the profit margins are presently low and more focused marketing is necessary for organic prawn. Sustainability is the key concept on which there is common agreement among producers, traders, and policy makers. Despite low levels of output from farming, the industry is looking forward to sustainable production and profit, deriving benefit from the moderate levels of effort on this prawn at present.