Perspective

Efficacy of Freshwater Aquaculture in India and Future Goals

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DESCRIPTION

At the World Food Summit organized by the Food and Agriculture Organization (FAO) in Rome in 1996, the participating countries committed to reduce the number of malnourished people in the world by half by the year 2015. It is a well-known fact that fish is rich in protein and essential amino acids. It is also a good source of calcium, vitamin A and B12 and omega-3 fatty acids. People irrespective of age who do not get sufficient nutrients from cereal based diets, would be benefited from the inclusion of fish in the diet. Aquaculture not only supplies dietary essentials for human consumption, but provides excellent opportunities for employment and income generation, especially in the more economically backward rural areas. 60 million people engage in primary fish production part-time or full-time directly through fishing or aquaculture, supporting the livelihoods of 10%-12% of the world's population. Aquaculture currently accounts for more than 50% of the world's fish consumption.

Globally India stands second in culture fisheries production. China, with world's one fifth of population produces one third of total fish harvested and two thirds of fish cultivated. While in India, the culture system is based on 36 species combination, Chinese have 10 or more species in a single pond thus maximizing productivity. Indian aquaculture has demonstrated a six and half fold growth over the last two decades, with freshwater aquaculture contributing over 95% of the total aquaculture production. India is bestowed with 3.15 million ha of reservoirs, 2.36 million ha of ponds and tanks as well as 0.19 million ha of rivers and canals. Freshwater aquaculture, which accounted for 34% of inland fisheries in the mid-1980s, has increased to about 80% in recent years. Induced carp and

aquaculture techniques in static ponds and aquaculture have significantly increased the productivity of aquaculture, making this sector a fast-growing industry. The Government of India's development support through the Research and Development Program of the Indian Agricultural Research Council (ICAR) and the network of Aquaculture Development Organizations (ADO) was the most important driving force for this development. Additional support was provided by several other organizations, government agencies, and financial institutions. Till date, approximately 650,000 hectares of water have been converted to aquaculture, covering 1.1 million beneficiaries. At the same time, about 800,000 fishermen were trained. Despite the importance of freshwater aquaculture in the Indian food sector, no comprehensive review of this sector has been conducted. However, preliminary reviews of recent advances in aquaculture, documentation on aquaculture technologies that bring about a blue revolution, promotion of Public-Private Partnerships (PPPs) for technology incorporation, and vertical expansion strategies to increase aquaculture production are available.

India's aquaculture sector is timely to meet the future challenges of increasing demand for fish, consumer choices, safe and high quality fish protein production, and among many challenges to generate export revenues. Strategy needs to be developed. Faced with land and water shortages, climate change, competition with other agricultural sectors, labor shortages, raw material shortages, the Code of Conduct for Responsible Aquaculture (CCRA). Hazard Analysis at Critical Control Points (HACCP) in agriculture. If the country needs to meet its premium blue revolution goals to ensure high quality fish protein, freshwater sector researchers and development machinery need to keep the pace of aquaculture development at a solid and sustainable level.

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