

To analyse the growth of Indian aquaculture sector, and acknowledge the main reasons for rejections in fish and fishery products. Antony Sanoj

Introduction:

Fish farming gained its importance and developed from 19th century in various parts of India. The system of poly culture is being followed in India (Azim 2005). As India have various sources of water from sea to ponds. Fresh water aquaculture contributes to 95% of total aquaculture farming in India. Catla, rohu, and mrigal are the three major carps which are produced about 18 million tonnes.

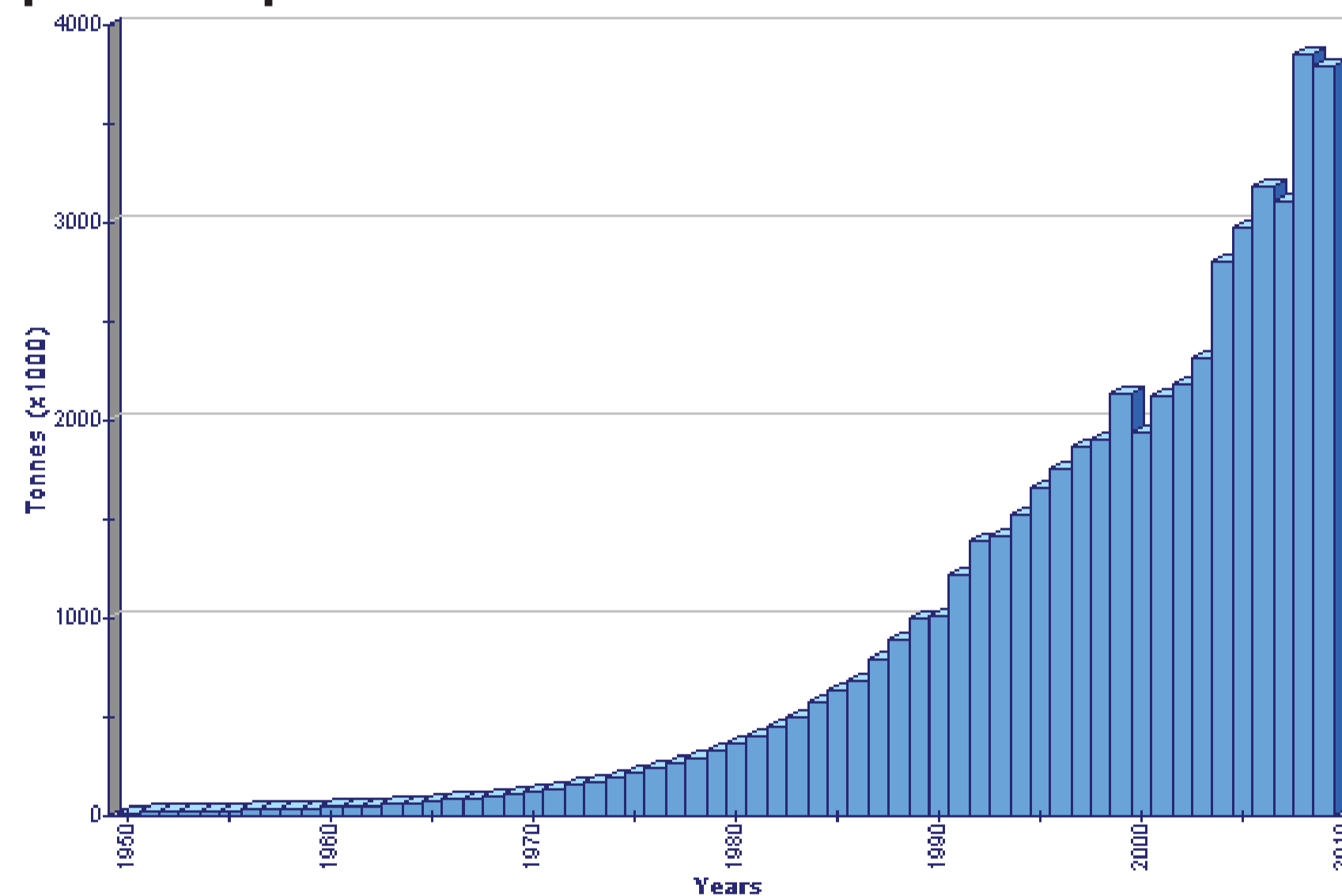
Fish production in India is growing gradually with a great contribution of the aquaculture sector to this industry and the country's one third of total fish production is from aquaculture. India is in the second position in aquaculture production and trying to follow new techniques for aquaculture practices. India has one of the biggest water bodies in Asia and has lots of resources in this particular sector. These resources can be exploited to practice aquaculture, which can improve the exports and earn national income to the country. The main methods of aquaculture practices followed in Indian aquaculture system are through freshwater, Brackish water and mariculture.

The main species being farmed in this method are given in the next table:

Freshwater Aquaculture	Brackishwater Aquaculture	Mariculture
Carp	Sea bass	Shellfish(Green and Brown Mussel)
Catla	Grey Mullet	Indian backwater Oyster
Rohu	Tiger Shrimp	Japanese Pearl Oyster
Magur	Mud Crabs	
Freshwater Prawn		
Pangasius		

The country's one third of total fish production is from aquaculture with the main exporters being the shrimps and freshwater prawns to global market. Indian commercial shrimp farm started its roots only during mid-eighties, where neighbouring Asian countries had reached its peak at this time, especially China and Taiwan.

Aquaculture production from 1950 to 2009 in India.

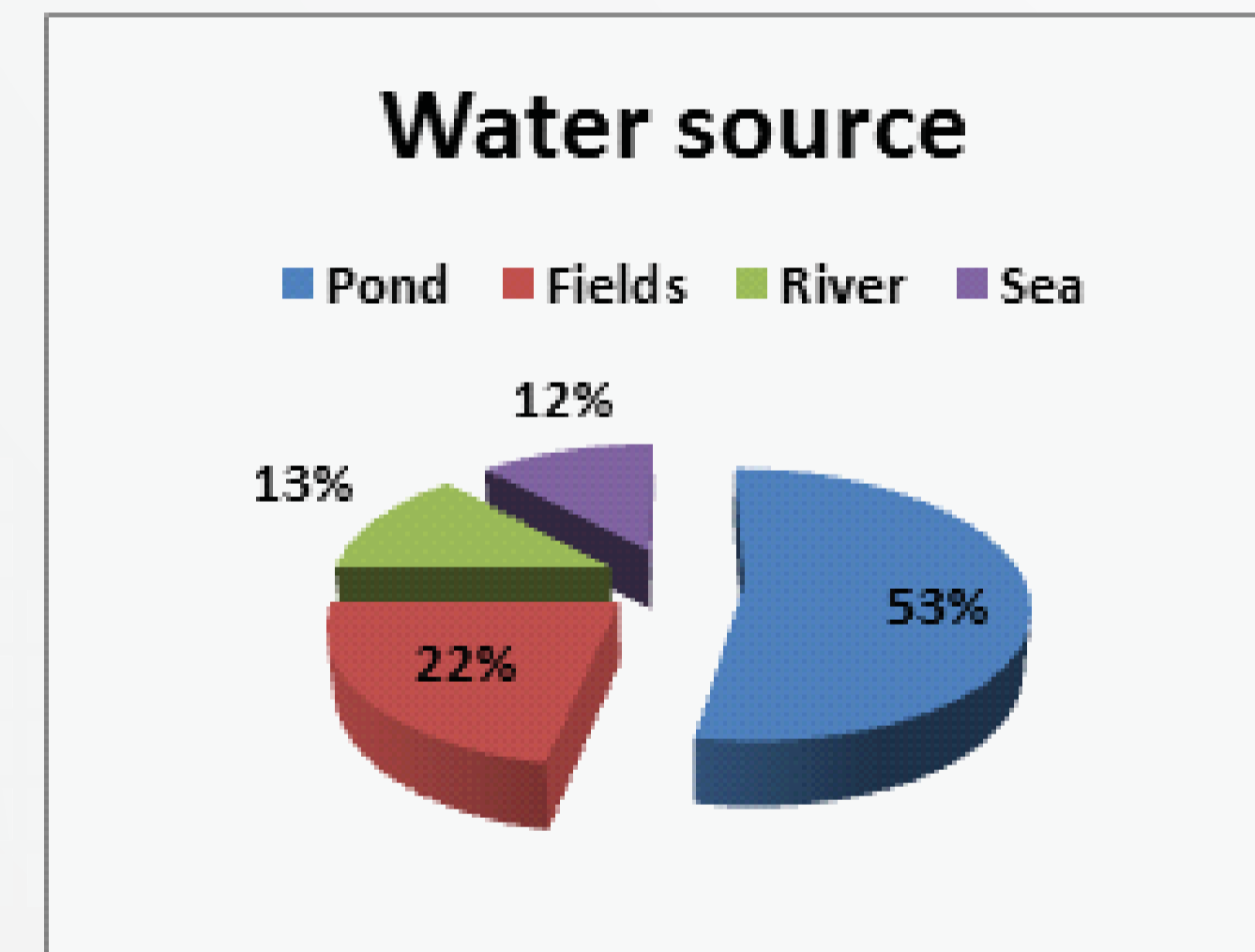


Indian aquaculture growth in this sector has increased at an average 7.1% from the year 1980 to the year 2009.

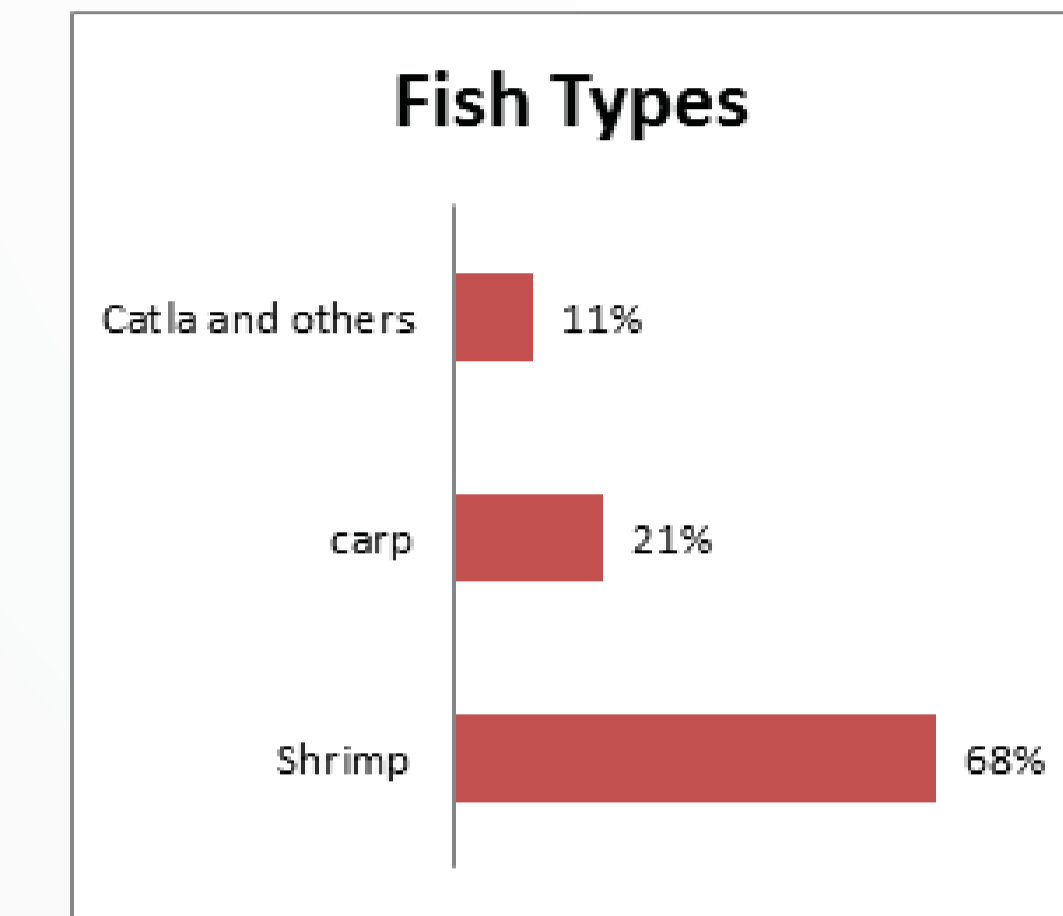
Findings and analysis:

The author identified that about 48% respondents practice organic aquaculture in India which is environment friendly and uses less antibiotics and chemicals. Further the author even identified that the conventional farming increases the production level to meet the demand and organic farming alone is not enough to meet the global market demand. Since traditional aquaculture farming is pond cultivation in India the respondents in the survey too were practicing pond cultivation than any other type of farming. The main reason for these kind of practices are the climatic and geographical conditions which are unavoidable. Aquaculture practice purely depends on the climatic conditions and availability of the resources, which the country has to farm within. The other sources do exist but are not utilised well.

Figure: Indian water source used for aquaculture.



Further the findings resulted in 68% farmers' farm shrimp in their farm. As mentioned in the literature review that shrimp farming is the main farming fish type in India. IE2 explained that, due to the hot climate in Tamil Nadu, Andhra Pradesh, Kerala, and Gujarat, shrimp is the best fish to be farmed.



The author further identified that many Indian farmers have interest in exporting their products but fail to do so due to various reasons such as standards, lack of information, favouritism amongst the political parties and literacy rate of the farmers in the country. Further cheaper antibiotic is found to be one of the main reasons for rejections. Other reasons followed by transportation facilities and improper freezing system. The author even recognised that the code of practice of Indian aquaculture products is not being properly tracked which is another reason to explore the root cause for the rejections of Indian products.

Conclusion:

The author acknowledged that Indian farmers lagged technological knowledge in their field which is practiced in the most advanced nations and the author throughout the research identified that the main problem facing Indian aquaculture sector is illiteracy, high rate of small scale farmers and lack of knowledge about the farming practices. But the traditional practices followed in India are the key factor for Indian farmers to farm good quality products, which made India stand after China in the global market. The practices followed are according to the resources available in the country as the research defines that most of the Indian farmers practice pond aquaculture system and it differed from other countries practices. This is due to the climatic conditions and the availability of the natural resources in country.

The survey conducted reports that 90% of the farmers in India have less than 2 Hectares thereby training them to adopt advanced technological factors is impractical since the author identified that the farmers of India are not well educated and financially strong. Hence adopting advanced technology in their farms is not affordable. These factors have also affected on the global rejection rate of Indian farmed products. This is identified by the author as, due to inappropriate proportion of antibiotics used in cultivation and improper freezing methods are one among the reasons for rejections in global market for fish and fishery products. This research by the author identifies that the standards to be followed for aquaculture products keep changing according to the trend, where most of the farmers are unaware of these new trends. These have become one of the reasons for rejection.

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