

Aquaculture, a Replacement of Agriculture in Andhra Pradesh, India

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Abstract

The present study is undertaken to understand the reasons for the shift of the farmers from traditional agriculture to aquaculture. The survey was carried out with fifty aquacultural units in Anandapuram village of Kalla mandal, Bhimavaram, West Godavari district of Andhra Pradesh. The area selected for study is the most fertile part of Andhra Pradesh, famous for paddy cultivation, in the Godavari basin. Aquaculture is an occupation of many living near rivers and the sea and most aquaculture jobs are located in coastal community. Farming of fishes and other aquatic life for human consumption is an age-old practice, but as an agribusiness, with potential for lucrative profit, aquaculture emerged only recently. A number of factors like development of biotechnology, burgeoning demand and widening supply gap, attractive prices etc have contributed to the horizontal and vertical expansion of aquaculture all over the world. All stakeholders in the progress of aquaculture are now aware of the potential and future prospects of industry. The inland fish production has been of greater economy than agriculture production. The study has shown that though agriculture has been a traditional family occupation, of people in this region, owing to the less profits and the uncertainty in yield due to the climate changes, the younger generation has been shifting to aquaculture. Aquaculture has been promising due to the reaping of excellent profits with low investment and maintenance costs.

Keywords: Aquaculture; Andhra Pradesh

Introduction

India has a costal line of about 8,129km, 5 million km of continental shelf and 2.02 million of exclusive economic zone. In the world, The development of fisheries is therefore one of the most promising industry. India is a major marine fish producer and

ranks seventh in the world. Pond culture has greatly increased in Andhra Pradesh in recent times. The inland fish production has been of greater economy than agriculture production. In India during the 1990-1991 a survey reported the inland fisheries are about 40% and in 2016-2017 the inland fisheries became 66.81% (Figure 1).



Figure 1: Aqua farms.

Material and Methods

A case study of aquaculture in Anandapuram village of Kalla mandal, Bhimavaram, West Godavari district of Andhra Pradesh, was undertaken. It is located 43 km towards east from district headquarters Eluru and 177 km from state capital, Amaravathi, Krishna District. Fifty aquaculture units were selected for the study.

Results and Discussion

Aquaculture It is also known as fish farming and accounts for about 10% of world’s commercial fish harvest. Farming of fishes and other aquatic organisms under controlled conditions for human requirements is an age-old practice, but as an agro business, with potential for lucrative profit, aquaculture emerged only recently. A number of factors like development of biotechnology, burgeoning demand and widening supply gap, attractive prices etc have contributed to the horizontal and vertical expansion of aquaculture all over the world. All stake holders in the progress of aquaculture are now aware of the potential and future prospects of industry.

Aquaculture is expanding these days than agriculture in Andhra Pradesh as it brings more profit than agriculture. being higher, operational costs are half that of agriculture, as fish farming requires less labour.

The income per harvest is shown in Figure 2. Up to 40 % of them are having annual income of 1 to 30 lakhs and 32% are having annual income of 31-60 lakhs. Only 28% of them have annual income up to 61lakhs rupees and above. Growing two crops of paddy a year requires around 12,000 to 15,000 Indian Rupees per hectare in capital expenses, for which profits would range between Rs 5,000 to Rs 7,000. On other hand, even traditional fish farming nets Rs 30,000 in profits, despite start-up expenses annually, on capital investments of Rs 50,000. The fish production in past decades can be observed from Figure 3. In 1990s the production was very low and in 2000s it increased about 10% and in recent times it increased to 14%.

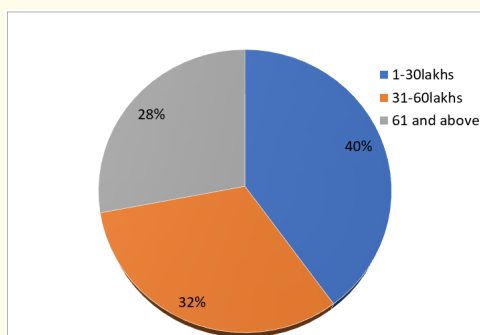


Figure 2: Income per Harvest.

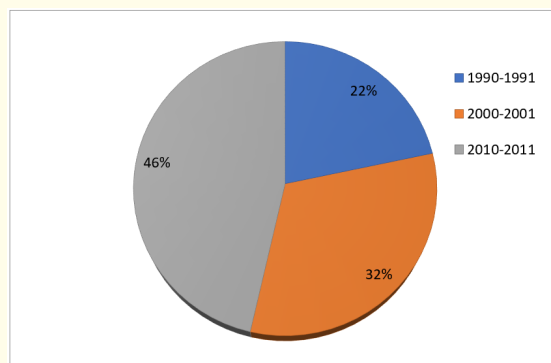


Figure 3: Fish production (in tonnes) in past decades.

One of the marked difference between agriculture and aquaculture is the labour requirement. It can be observed from Figure 4, that the labour required for aquaculture at each stage is very markedly low as compared to agriculture.

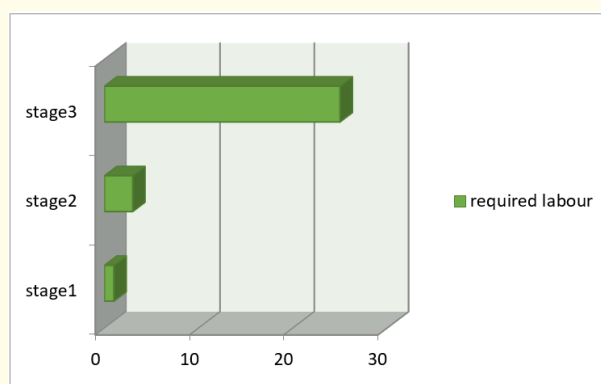


Figure 4: Labour Required at each Stage.

In Stage -1 one person, Stage-2 three people and in the last stage- the harvesting stage- about 25 people are required. The wage for one labourer is Rs.350 per day and after they catch fish Rs.140 per net. Whereas in agriculture, the demand for labour is very high and the labour cost automatically goes up. The capital investments are high for the land, fish and very little for the labour, as can be seen from Figure 5.

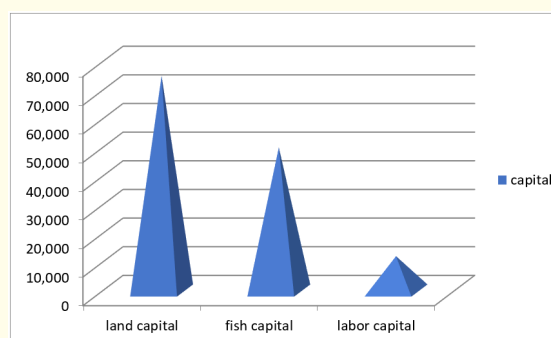


Figure 5: Investments in Aquaculture for various categories.

Summary

Fish farms range from simple ponds or flooded rice fields to highly engineered hatcheries in which the environment is monitored and kept under control. The only risk involved in aquaculture is the reduced fish production due to diseases caused to them.

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