produce in the village itself or its vicinity through SHGs. For this, the SHGs (all women) have been trained to handle marketing of goods for which they are given commission by the Government. Necessary infrastructure has also been provided to the SHGs. The main objective of marketing through SHGs is to enable the farmers to obtain the best price for their agricultural / forest produce vis-à-vis to create marketing facility at the door step.

The VOs have been successfully implementing village level collective marketing of paddy, maize, red gram, cashew, and NTFP etc. The marketing interventions of SERP-IKP have registered a significant increase in recent years mainly in paddy procurement. The field study reveals SHGs have been performing their activities systematically vis-à-vis statistics are maintained meticulously and many farmers thus have been benefitted. The case is unique so being emulated to other states of India. This can also be taken up in other countries particularly developing countries where farmers have been facing to market their agricultural produce.

**Keywords:** agricultural produce; marketing; SERP-IKP; Self-help Group (SHG).

## Fish consumption in Brazil: is the internal market able to accommodate the strong growth projected for Brazilian aquaculture?

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## **Abstract**

According to estimates from the Food and Agriculture Organization of the United Nations (FAO), the world population will increase from the current 7 billion people to 8.3 billion in 2030 and to 9.1 billion in 2050. Given these estimates, the UN agency estimates that the need to increase agricultural production by 2050 will be around 60%. Given these projections

in the world today is fish, reaching 154 million tons in 2011, aquaculture has been identified as one of the possible solutions to increasing global demand for this protein. This occurs because the fishing sector (capture), although still represents approximately 59% of total fish production has shown, in total, stability in their production in recent years around 90 million tons. This trend of growth of aquaculture is also repeated in Brazil. The sector grew by 31.2% in annual production between 2008 and 2010, reaching 479,399 tons. It is in this context of expected strong growth of aquaculture production in Brazil in the coming years as the need arises to check the ability of the market to absorb this increased supply. Some industry players believe that the per capita consumption of fish in Brazil, today around 9 kg/ capita/year should increase because the minimum consumption stipulated by UN is 12 kg/capita/ year. Moreover, it is also believed that the growth of national aquaculture production could supply much of the Brazilian consumer demand for fish which is now served by imports. Currently, the trade deficit Brazilian fish is approximately \$ 1 billion and this figure has increased in recent years. Considering the issues raised, we used economic models that attempt to provide more clarity to the relationship between domestic consumption of fish in Brazil and other exogenous variables. We investigated how the income of the population and the price of fish are related to domestic consumption. It was also what the behavior of the fish consumption due to the increase of production, i.e. if one can say that the increased production of seafood will be accompanied by an increase of internal consumption. Calculating regressions, we found a significant relationship between domestic consumption and production of fish in Brazil. It was found that the larger the production variation becomes larger variation in the consumption of one year to another. However, the econometric model with control variables shows that fish production has no significant causal relationship with domestic consumption. It was also found through a VAR, the possibility of production lagged values having relationship with domestic consumption. The econometric modeling shows that the variation in fish production in Brazil two years ago has negative effect on the variation of current domestic consumption of fish.

and the fact that the more animal protein produced

**Keywords:** aquaculture; consumption of fish; vector autoregressive; elasticity of demand for fish.