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Conservation and Sustainable Utilisation



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Analysis of the Comparative Advantage of Seafood Export from India and Selected ASEAN Countries

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Introduction

Preferential Trade Agreements between countries or between countries and regions are becoming an increasingly common global phenomenon. Regional trade pacts are entered into to foster trade relations among countries on a premise of mutual benefit. India has entered into a Free Trade Agreement (FTA) with the ASEAN block which came into effect on 1 January, 2010 (Anon, 2010). FTAs are means to foster trade through reduction of tariffs for various commodities listed in the agreement. The ASEAN block has Brunei Darussalam, Cambodia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Indonesia and Vietnam as member countries. Against this background, this paper attempts to analyze the revealed comparative advantage (RCA) of seafood exports for India and major ASEAN countries at existing levels of trade. The agreement is important from the point of view of the fisheries sector, including seafood trade as some of the countries in the ASEAN block like Thailand, Vietnam, Indonesia and Malaysia are major seafood exporters and international competitors as far as India are concerned.

Materials and Methods

Data on total seafood exports and imports from India, ASEAN block as well as the world was compiled from the website of International Trade Centre (Anon, 2009). The period of study was from 2006 to 2008. The indices calculated for the study included the Revealed Comparative Advantage (RCA) or the Balassa index, where the export of a specific commodity in a particular country or world is compared with the total export from the country or world (Balassa, 1965). RCA was calculated using the following equation:

$$RCA = (x_{ij}/x_{wj})/(x_{it}/x_{wt})$$

where, i = India or ASEAN; j = seafood; w = World; x_{ij} = export value of seafood (India or ASEAN); x_{wj} = export value of seafood (world); x_{it} = total export (India or ASEAN); x_{wt} = total export (world).

RCA index that is greater than unity reveals a comparative advantage of the country with respect to the particular product.

The export competitiveness of finfish was also analysed using the indices of competitiveness (Fertö and Hubbard, 2002). Besides using the exports as a factor, as in Balassa index, these indices have taken into consideration imports also. As for the RCA, these indices were worked out with reference to the total marine products export and import from India and world. One of the indices, the Relative Trade Advantage (RTA), which included both exports and imports and was the difference between Relative Export Advantage (RXA) and Relative Import Advantage (RMA) has been used in this paper. The RTA is derived as follows:

$$RMA = (m_{ij}/m_{wj}) / (m_{it}/m_{wt})$$

where, m_{ij} = Import of seafood (India or ASEAN); m_{it} = total import (India or ASEAN); m_{wj} = import of seafood (world); m_{wt} = total import (world)

$$RXA = RCA$$

$$RTA = RXA - RMA$$

where, $RXA = RCA$ and $RMA = (m_{ij}/m_{wj}) / (m_{it}/m_{wt})$

Thus,

$$RTA = ((x_{ij}/x_{wj}) / (x_{it}/x_{wt})) - ((m_{ij}/m_{wj}) / (m_{it}/m_{wt}))$$

A positive value revealed a comparative advantage of the country with reference to the commodity.

An analysis was also carried out taking the seafood export and import of the region (India+ASEAN) into consideration to see if there is any difference in the RCA and RTA when the analysis is done at the regional level.

Results and Discussion

The world seafood exports have touched US\$ 71000 million in 2008 and the imports were worth US\$ 78000 million (Table 1). The average export from India for the period under study was US\$ 1481 million and

that from the ASEAN region was US\$ 8722 million. The share of India in seafood exports was 2.21% and that of the ASEAN block being 12.97%. The seafood imports into India was US\$ 35 million and that of ASEAN was US\$ 3357 million accounting for 0.05% and 4.45% of the total world seafood imports.

Table 1: Seafood exports and imports (US\$ million)

	2006		2007		2008	
	Exports	Imports	Exports	Imports	Exports	Imports
World	62986	70400	67534	76625	71241	78458
India	1561	24	1555	24	1327	57
ASEAN	8156	2901	8928	3202	9082	3967

It is clear from the Table 1 that India is a marginal player in the world seafood trade and the ASEAN block is way ahead both in terms of export as well as import. The results of the indices RCA and RTA for India and ASEAN for the period under study are presented in Table 2. It can be observed that the Revealed Comparative Advantage for both India and ASEAN are above 1 indicating that they are having an advantage as far as seafood export is concerned. The Relative Trade Advantage, which is an indicator of export competitiveness, is also positive.

Table 2: Export competitiveness of seafood trade from India and ASEAN

Index	India			ASEAN		
	2006	2007	2008	2006	2007	2008
RCA (>1)	2.37	2.18	1.60	2.03	2.12	2.02
RTA (>0)	1.28	1.36	1.16	1.23	1.16	0.78

It can also be observed that the RCA for India has been declining from 2.37 in 2006 to 1.60 in 2008, while that of ASEAN has been steady at 2.03 during 2006 and 2.02 during 2008. This is also reflected in the share of exports which for India has fallen from 2.48% in 2006, 2.30% in 2007 to 1.86% in 2008 while for the ASEAN block it has been 12.95% during 2006, 13.22% in 2007 and 12.75% in 2008 (Fig. 1). The RTA takes into consideration imports and it has been falling for both India and ASEAN since the imports has been rising. The share has risen from 0.03% of world import in 2006 to 0.07% in 2008 for India and from 4.12% of world imports to 5.06% in 2008 for ASEAN (Fig. 2).

Analysis of the Comparative Advantage of Seafood Export from India and Selected ASEAN Countries

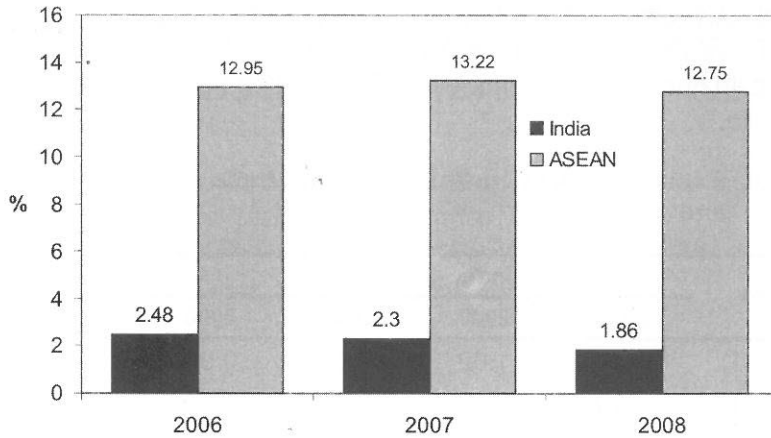


Fig. 1: Percentage contribution of India and ASEAN block in world seafood exports

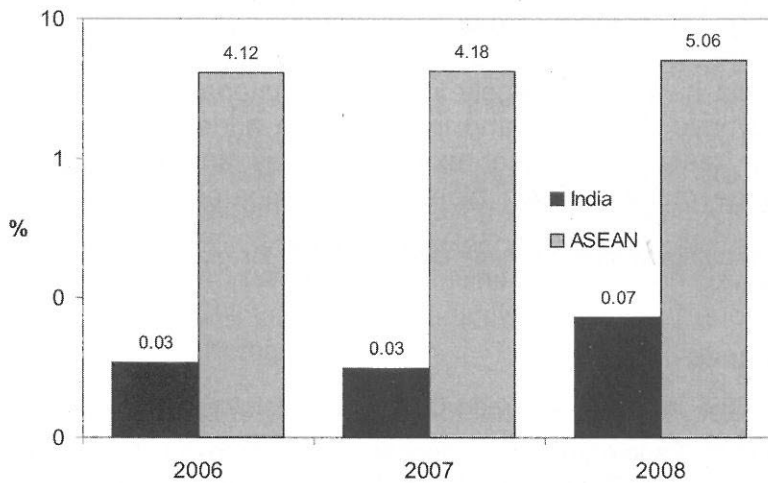


Fig. 2: Percentage contribution of India and ASEAN block in world seafood imports

The analysis with respect to the region was carried out to see if there is any difference in the pattern that was observed at the world level. The RCA was above unity for India as well as ASEAN, and the trend was similar to that seen at the world level, with the RCA falling for India and rising for ASEAN, indicating that the share of seafood exports for ASEAN has been rising and that of India has been falling at the regional level (Table 3). The RTA, however, has been negative for ASEAN, probably because it also takes into account the imports at the country level and

the ASEAN block has a higher RMA (Relative Import Advantage) than RCA (Revealed Comparative Advantage) and it accounted for most of the imports in the region at almost 99%, with India's seafood import being negligible.

Table 3: Export competitiveness of seafood trade at the regional level (India and ASEAN)

Index	India			ASEAN		
	2006	2007	2008	2006	2007	2008
RCA (>1)	1.14	1.02	0.82	0.98	1.00	1.03
RTA (>0)	1.10	0.99	0.76	-0.29	-0.28	-0.29

Conclusion

It has been observed that ASEAN countries have a better comparative advantage in seafood exports compared to India. The relative trade advantage is also better than India at the world level. While the exports from India have been largely in the raw material form, the exports from ASEAN have diversified and include value added forms. This has been a major reason for higher export earnings and resulting comparative advantage of the ASEAN block when compared to India.

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