Exports of Live Stock and Allied Products

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Introduction

Export-led agricultural growth can be a basis for overall development of a country. This also facilitates the establishment of requisite infrastructure in the country as market environment forces for the same. One of the main objectives of the governments' export policy is to maximise agricultural exports in order to earn foreign exchange. It also seeks to provide remunerative prices to the farmers while ensuring adequate availability of essential commodities to the domestic consumers at reasonable prices. (Rajeswar Rao, 2002) The new Exim Policy (2002-2007) announced by ministry of commerce is beneficial to the farmers as it makes exports free, easy and rewarding for them.

Traditional exports of cereals and other primary commodities have been hit hard by low international prices during the last ten years (Chand, 2003 and Gulati,2003). There is a consensus that agriculture should be diversified beyond the traditional primary exports. Being value added products, exports of livestock and products of animal origin form a significant part of total export of agriculture pool. Analysis of trends in supply to buyers can help device strategies to increase exports.

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This paper analyses the exports of livestock and allied products to principal groups of countries in the light of world trade. The direction of trade has been analysed to explore the areas where exports can be given a further boost.

Issues relating to Trade in Live Stock and Allied Products

There are four important issues which need attention. They are a) lack of studies especially the analysis of direction of trade, b) effect of globalisation after the establishment of WTO on exports of live stock and allied products, c) lack of infrastructure facilities to enhance export of livestock products and d) Sanitary and Phyto sanitary restrictions used as NTB (Non Tariff Barrier)

Considering the importance attached to the livestock sector, a number of studies on market structure, nature of demand and supply in the domestic and international markets for milk and milk products, meat and other animal by-products are conducted. Some private and public agencies have undertaken studies. But these studies are not accessible to public or made available for wider professional audience. They are found in purely technical or industry specific journals (George, 1995).

Tewari (1995) found (prior to WTO establishment, 1995) that while Indian export of livestock and livestock products had grown faster than the rates at which total Asian or world exports of these products were rising, their imports into India had grown at a rate lower than the rates of Asia and the World. There was a marked increase of share in total export of livestock products in Asia and the world. She opined that situation would further improve if more emphasis was laid on producing more of value added products of international quality standards and aggressive marketing strategies are adopted.

Gill et al (1995) suggested that the non-descript breed of animals (like buffaloes) could be used for meat purposes and export to foreign lands. This would go a long way in lessening the mounting pressure of animals on scarce land resources. If export of animals is encouraged through policy instruments, the earnings from livestock could be enhanced to a great extent.

Parekh (1997) and Kondaiah (1997) analysed the prospects of dairy products and meat and meat preparations respectively. According to them India can direct its exports to SAARC countries and the Middle East. Milk product prices have doubled in the SAARC region. Pakistan imports huge quantity of milk products i.e. milk powder. Middle East countries import 1200 tonnes of cheese daily. However, Pandey (1995) observes that inadequate market infrastructure, more particularly unregulated and unorganised markets for livestock and its products inhibit the growth of this enterprise. Due to lack of appropriate price policies, share of the producer in consumer rupee is also very small.

With the signing of WTO agreements, exports of developing countries to developed world has started increasing as it is very difficult for the developed countries to impose quantitative restrictions or place high tariff. They, however, can take recourse to non-tariff measures, mainly on the ground of quality. Gulati (2003) feels that necessary regulations are required for food and environment safety, but developed countries may use them as NTBs.

The quality and safety of food products cannot be ascertained by sheer physical inspection. It involves usage of sophisticated and advanced technology. Sometimes dangerous toxins, at low level, are difficult to detect at early stages. Due to these factors, free-market economy cannot solve the problems of food quality. Therefore, along with AoA two other agreements, namely, the Agreement on Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT), aim to address these concerns (Jaiswal, 2003).

The benefits of trade liberalisation in the agriculture sector achieved by the Uruguay Round negotiations could be undermined by the protectionist use of SPS. An effective way to overcome a number of the problems faced by developing countries is to introduce certain amendments to the legal text to ensure that the risk of using SPS measures as a border protection instrument is minimised. Some provisions of SPS do not take adequate account of circumstances as well as trade interests of developing countries. There is a consensus (Vyas, 1999; Gulati, 2003; Jaiswal 2003) that regulations should be harmonised, aligned and simplified. There should be increased length of time between the routine notification of a new SPS measure and its application. There also needs a revision of the format of notifications so that they routinely contain more information on the nature of the proposed SPS measure. Steps should also be taken to make producers, traders and exporters aware of the health and safety standards imposed by different countries.

Kondaiah (1997) listed the constraints affecting meat exports as livestock disease situation, abattoir facilities, conditions of slaughter houses, some social groups against meat exports, lack of grading and inspection system in meat trade and lack of pragmatic slaughter policies.

Data and methodology

Four groups of commodities -1) Live animals, 2) meat and meat preparations, 3) milk and milk products and 4) eggs, honey and other products of animal origin- have been selected for the analysis. Harmonised system of nomenclature classifies the commodities on the basis of origin, use, functions and trade. Live animals have been classified in chapter 1 which includes live horses, asses, mules, hinnies, bovine animals, swine, sheep, goat, live poultry (fowls, ducks, geese, turkeys and guinea fowls) and other live animals. Second select group of commodities are meat and meat preparations which includes meat and edible offal of all animals, fresh, chilled, salted in brine or dried. Other two groups comprise, one, milk and milk Products that include milk, cream, whey , buttermilk, yogurt, cheese and curd, two, birds' eggs in shell, yolks dried or cooked , natural honey and edible products of animal origin, (Customs Tariff Act, 1975, 2002-03 issue GOI publication and UN Comtrade Database Notes).

Exports of select groups of commodities over 10 years have been analysed from the period 1993-1994 to 2002-2003 (in short 1993 to 2002). Importers of Indian products have been arranged in 5 groups- SAARC includes Bangladesh, Bhutan, Maldives, Nepal, Pakistan, and Sri Lanka. Middle East Group includes UAE, Saudi Arabia, Kuwait, Yemen, Bahrain, Turkey, Qatar, Lebanon, Iran, Iraq, and Israel. High Income Asian Countries (HIAC) includes Japan, Singapore, South Korea, Taiwan, China, Hong Kong, Thailand, Indonesia, Malaysia and Philippines. High Income Other Countries (HIOC) include Australia, Austria, Belgium, Canada, Denmark, Germany, Iceland, Ireland, Israel, Netherlands, Portugal, Spain, Switzerland, UK and USA, Rest of World is the fifth group. No country has been repeated in any group.

Raw data of individual countries and commodities have been taken from UN Comtrade Database, CMIE September 2003 issue, RBI Hand Book of Statistics and Agriculture Situation in Brief. Growth of the select commodities have been calculated by using growth model Ln (y) = a +b*time, where 'b' is exponential growth and Compound Growth Rate (CGR) = (Antilog (b) - 1)*100. Percentage share of select commodities' exports to different group of countries have been calculated and growth has been arrived at.

A reference has been made to worlds' top exporters and importers during the year 2002 to get a comparative view with Indian exports. Total imports of the select group of commodities have also been calculated and CGR calculated.

Direction of Export

India's exports of total agricultural and allied products have grown at compounded growth rate (CGR) of 3.57% from US $ 4027.5 in 1993 to US $ 6428.5 in 2002. But the CGR after 1995 (i.e. after the establishment WTO) is negative 1.54%. While the total agricultural exports recorded negative growth, exports of livestock and allied products recorded growth rates in excess of 7.83% between 1995 and 2002.

Live Animals

In the year 2002, total world trade of live animals was 8.6 billion dollars. The top importers were USA (2.159 billion dollars), Italy (1.37 Billion dollars), UK (523.6 million dollars), Saudi Arabia (511.7 million dollars) and

Germany (445.9 million dollars). Top exporters were Canada (1.593 Billion dollars), France (1.537 Billion dollars), USA (641.9 million Dollars), Australia (635.08 million Dollars) and Netherlands (631.9 million Dollars). The import-export figures of Canada and USA indicate that there is a good business of re-export. Live animals are exported from Canada to USA and processing takes place in USA from where they are exported as it is or as meat preparations.

Compared to world trade, exports of Indian live animals is very miniscule, yet it has grown at CGR of 1.04%. (Table 1) CGR after 1995 is 9.47%. Major importers of Indian live animals are Bangladesh, Sri Lanka, Kazakhstan, Malaysia and Nepal. During the referred ten year period exports of live animals to SAARC and Middle East Countries is reducing at CGR of 1.76% and 24.06% respectively. (Table 2) However, exports of animals to High Income Asian Countries (HIAC) cannot be analysed due to negligible export value, but exports to high income other countries (HIOC) and rest of world are rising at CGR of 29.81% and 57.46% respectively (Table 2), latter is statistically significant at 1% level. Table 3 shows the growth of percent share to select group of countries. Increase in share to High income countries is compensating the loss in share of SAARC and Middle East countries. India also imports animals from Nepal, USA, UK, Denmark and France, but this import is negligible.

Meat and meat preparations

Total world export of meat and meat preparations in the year 2002 was 40.04 billion US dollars. The top exporters were USA (5.9 billion US D), Netherlands (3.7 billion US D), Australia (3.2 billion US D), Denmark (3.13 billion US dollars) and Canada (2.792 billion dollars). Major importers were

Japan (6.7 billion US D), USA (3.9 billion US D), Germany (3.4 billion Dollars), UK (3.3 billion US D) and Italy (2.97 billion Dollars). The figures of developed countries again indicate their involvement in re-export business.

India's total exports of meat and meat preparations have grown at the rate of 10.03% which is statistically significant at 1% level (Table 1). CGR after 1995 is 7.26%. Major importers of meat and meat preparations are Malaysia, Philippines, UAE, Egypt and Jordon. CGR of exports to HIAC and ROW are 9.38% and 21.91% respectively and statistically significant at 1% level. Growth to Middle East countries is only 2.70%. In table 3, it is seen that share of total exports of meat and meat products are increasing with HIOC and ROW while same is reducing with SAARC and Middle East countries. India also imports meat and meat preparations in a small quantity mainly from Netherlands, Denmark, Germany, Ireland and Australia.

Milk and Milk Preparations

World's total export in the year 2002 was 23.6 billion dollars. Top exporters were Germany (3.7 billion US dollars), France (3.6 billion US D), Netherlands (3.2 billion US D) and Belgium (1.7 billion US D). Top world importers were Germany (3.0 billion US D), Italy (2.3 billion US D), Belgium (1.8 billion US D), France (1.75 billion US D) and Netherlands (1.73 billion US D). These figures reiterate that developed countries re-export these commodities and earn good foreign exchange.

India's total exports of milk and milk products have grown at CGR of 23.58% during the referred period. This growth is statistically significant at 5% level. CGR between 1995 to 2002 is 56.04% which is statistically significant at

1% level. Major importer of Indian milk and milk products are Bangladesh, Yemen, UAE, Nepal, and Singapore. Milk and milk products have shown better growth to all select groups of countries. Though growth to SAARC (26.50%), Middle East (24.47%), HIAC (35.86%), HIOC (19.56) and ROW (36.66%) are statistically not significant but this high growth is very considerable as Indian Milk products are capturing a good market share all over the world. Share of exports to HIAC and ROW is increasing while to other group of countries it is stagnant. India also imports milk and milk products from New Zealand, France, Australia, Denmark and USA.

Eggs, Honey and Other Products of Animal Origin

Last group of commodities is poultry eggs, honey and other products of animal origin. Total world trade in year 2002 was 2.1 billion US D. During this year major exporting countries were Netherlands (383 million US D), USA (158.2 Million US D), Germany (178.9 Million US D), France (150 million US D) and China (139 million US D). Top importers were Germany (469.9 million US D), China, Hong Kong SAR (203 million US D), USA (213 million US D), and France (126.5 million US D). These figures reiterate that developed countries re-export the imported commodities, as it is or after value additions.

CGR of India's export is 32.07% which is consistent as it is statistically significant at 1% level. CGR between 1995 and 2002 is 7.83%. Growth to all select groups of countries is more than 10% but the growth to HIAC and ROW are statistically significant. Share of total export is increasing to all High income countries but reducing with Middle East and SAARC countries after 1993. India exports these products to UAE, Germany, Oman, Japan, Saudi

Arabia, Belgium, Bangladesh, Kuwait and Denmark. India also imports these commodities from UK, USA and Netherlands, but the value so far is very small.

Exports do not show the actual picture of terms of trade until imports are analysed simultaneously. Table 4 shows the imports of the select group of commodities. Imports of milk and milk products and poultry products are growing at CGR of 7.70% and 66.15% respectively. During this period of globalisation after the establishment of WTO, no country can deny market access. Rising imports can be due to urban demand which may be due to high demonstration effect of consumers and promotional techniques used by producers.

Conclusions

India's exports of all select commodities are very small compared to world trade but this also indicates the potential for Indian exporters to enter into huge market of livestock and allied products. There is considerable growth in the exports of live animals, meat and meat preparations, milk and milk preparation and eggs, honey and other products. Share of these products is growing faster than the total agricultural exports. There is a considerable growth of exports to High Income Countries, both Asian and Others than other group of countries. India is losing business with traditional partners in SAARC and Middle East, especially the trade of meat and meat preparation, eggs etc. But the loss is compensated by exports to High Income countries. After the establishment of WTO, exports of milk and milk products are growing to all group of countries, but efforts should be made to bring consistency in growth.

Indian exporters should compete with rivals with aggressive marketing in SAARC and Gulf countries. India should improve its infrastructure and should take the strategic advantage being in the centre of world. India can import these commodities and re-export after some value addition. Indian products especially the milk and milk products, egg preparations, honey, etc should be promoted domestically among urban classes. These products should compete with international products in promotion, presentation and pricing so that they are as popular as imported. The comparison of CGR during the periods 1993-2002 and 1996-2002 clearly shows that there is good increase of Indian exports to developed countries, but there is a need to maintain the consistency in trade.

WTO has opened more gates due to market access pressure but has also paved the way for more competition. The major problem is that Sanitary and Phyto sanitary restrictions which are used as NTBs. Indian exporters should be well versed with standards and improve their quality. Infrastructure facilities like transportation, freezing, canning and packing should be increased to enhance export of livestock and allied products.

Tables

TABLE NO.1

Exports of total agricultural commodities and live stock and products exports (All figures in US $ million)

Years a	TOTAL AGRICULTURE b	HSN 01 (LIVE ANIMALS) c	HSN 02 (MEAT AND MEAT PREPARATIONS) c	HSN 0401to 0406 (MILK AND MILK PRODUCTS) d	HSN 0407 to 0410 (EGGS, HONEY AND OTHER) f
1993	4027.5	1.46	109.65	3.67	3.20
1994	4226.1	0.85	125.67	12.25	2.60
1995	6081.9	2.59	183.61	7.84	7.25
1996	6868.5	1.95	195.13	3.45	29.68
1997	6634.2	0.36	213.81	3.89	27.54

1998	6033.1	1.13	183.47	4.13	18.01
1999	5614.9	1.02	184.82	11.26	15.86
2000	5982.9	1.70	323.83	22.66	23.61
2001	5921.3	1.92	250.73	40.27	34.45
2002	6428.5	1.29	279.19	26.17	47.19
CGR	3.57	1.04	10.03*	23.58**	32.07*
CGR between 1995-2002	-1.54	9.47	7.26	56.04*	7.83

Source of Raw data: UN Comtrade Database, CMIE Sept, 2003 issue.

* statistically significant at 5% level ** statistically significant at 10% level.

TABLE NO. 2
GROWTH OF EXPORTS TO SELECT GROUP OF COUNTRIES

Products	SAARC	MIDDLE EAST	HIAC	HIOC	ROW
HSN 01 (LIVE ANIMALS)	-1.76	-24.06	N.C.	29.81	57.46 *
HSN 02 (MEAT AND MEAT PREPARATIONS)	8.85	2.70	9.38*	24.06	21.91 *
HSN0401 TO 0406 (MILK AND MILK PRODUCTS)	26.50	24.47	35.86	19.56	36.66
HSN 0407 to 0410 (EGGS, HONEY AND OTHERS)	10.61	29.53	109.80 *	56.74	25.17 *

* statistically significant at 5% level ** statistically significant at 10% level.

TABLE NO. 3
GROWTH OF PERCENT SHARE OF TOTAL EXPORTS TO SELECT GROUP OF COUNTRIES

Products	SAARC	MIDDLE EAST	HIAC	HIOC	ROW

HSN 01 (LIVE ANIMALS)	-2.76	-24.84 *	123.96	28.48	56.03 *
HSN 02 (MEAT AND MEAT PREPARATIONS)	-1.07	-6.66	-0.58	12.76	10.80
HSN 0401 to 0406 (MILK AND MILK PRODUCTS)	2.36	0.72	9.94	-3.25	10.58
HSN 0407 to 0410 (EGGS, HONEY AND OTHERS)	-16.25	-1.92	58.85	18.68	-5.22

* statistically significant at 5% level

TABLE 4
IMPORTS INTO INDIA (Values in US $ Million)

Years	HSN 01 (LIVE ANIMALS)	HSN 02 (MEAT AND MEAT PREPARATIONS)	HSN 0401TO 0406 (MILK AND MILK PRODUCTS)	HSN 0407 TO 0410 (EGGS, HONEY AND OTHERS)
1993	0.83	0.02	5.64	0.01
1994	1.00	0.00	9.79	0.23
1995	1.04	0.00	18.75	0.20
1996	0.83	0.00	1.48	0.11
1997	0.75	0.06	8.04	0.03
1998	0.35	0.01	10.07	0.04
1999	0.43	0.06	41.61	0.17
2000	0.30	0.10	10.70	1.22
2001	0.36	0.12	6.86	1.47
2002	0.75	0.08	12.67	4.75
CGR	-9.78	1.31	7.70	66.15 **

** statistically significant at 10% level.

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