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COMPETITIVENESS OF INDIAN AGRICULTURE IN THE CONTEXT OF GLOBALIZATION

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Abstract:

With the signing of GATT agreements it was believed that the developing countries would get better market access to sell their goods in the developed countries. As the produce of poor farmers of developing countries would get larger market access, it was also expected that expansion in market size for the agricultural products would lead to greater demand and this would further ensure better prices for their products. But at the same time many scholars also pointed out the probable adverse effects of globalisation on Indian agriculture. With this study, an effort has been made to analyse the competitiveness of Indian agriculture in the context of liberalisation. Along with this basic objective, the magnitude and trend of Indian agricultural exports and imports has also been analysed in this study.

I. Introduction:

Global experience shows that as an economy experiences growth, people tend to move out from primary to other sectors. But even after such structural transition, the agriculture in India plays a very important role from various perspectives: first, a huge portion of India's population depends on agriculture directly or indirectly; secondly, the primary sector also holds a key to achieve the goal of hunger free India and finally the agricultural sector has the potential to spur the benefits of economic growth.If we carefully consider the process of evolution of Indian agriculture and its various relations, we will notice that the whole evolution

process of Indian agriculture could be divided into three distinct phases: Period of reforms and consolidation of agriculture after independence (during 1950's and 1960's); Period of Green revolution (during 1970s and 1980s) and thatof Globalisation during 1990's and after. While the consolidation of land ownership and improvement of existing infrastructural facilities were emphasised during the first two decades after independence, the need to implement modern machineries and high yielding variety seeds in agriculture to increase productivity were emphasised through green revolution in India. Due to the virtues of Green revolution, Indian agriculture faced a drastic transformation from its conservative or primitive form to modernised form. With all these technological improvement and land reform measures, the traditional agricultural operations got replaced with the cash based agriculture and as consequence the social relations associated with the agricultural sector has somewhat changed in India. Due to increased use of HYV seeds and provision of better irrigation facilities, many crops became competitive in Indian agriculture (Gulati, 2002). Even if we look at the data, we will see that during this period the productivity of agricultural sector increased considerably but at the same time due to volatile price mechanism of primary commodities many farmers also faced some serious problems. Despite having surplus in agricultural production, the developing countries often faced difficulties to sell their produce in foreign market. It happened mainly because of the fact thatmarkets of developed countries were highly distorted with the use of high degree of subsidies and protection; as a result the agricultural produce of developing countries found difficulties in finding its hare in the markets of developed markets. However, the economic reforms and establishment of World Trade Organisation has transformed the scenarios of Indian agriculture altogether. With the signing of GATT agreements it was believed that the developing countries would get better access of markets to sell their goods in the developed countries. As the produce of poor farmers of developing countries would get larger access of market, it was also expected that expansion in market size for the agricultural products would lead to greater demand and this would further ensure better prices for their products. But at the same time many scholars also pointed out the probable adverse effects of globalisation on Indian agriculture (Suri, 2006, Charyulu and Prahadeeswaran, 2016). They pointed out that the removal of state support and dilution of import restrictions would led to the degradation of farming community. The developed countries could easily use the WTO terms in their favour-they could dump food grains or other agrarian produce in the name of aid (Suri, 2006). But this would not be possible for the developing nations. As the fluctuation of exchange rate determines the terms of trade in this era of globalisation, therefore only a good crop in a specific year does not signify better agricultural trade that year. Even the National Agricultural policy (2002) of the ministry of agriculture stated "Agriculture has become a relatively unrewarding profession due to a generally unfavourable price regime and low value addition, causing abandoning of farming and increasing migration from rural areas. This situation is likely to be exacerbated further in the wake of integration of agricultural trade in the global system, unless immediate corrective measures are taken".With this backdrop, an effort has

been made to analyse the competitiveness of Indian agriculture in the context of liberalisation through this study. Along with thisbasic objective, the magnitude and trend of Indian agricultural exports and imports has also been analysed in this study.

To attain these basic objectives of the study, this paper is organised as follows: after reviewing a brief portion of the existing literature in section II, the competitiveness of Indian agriculture in immediate post reform period is discussed in section III. After analysing the competitiveness of Indian agriculture in immediate post reform period, section IV is devoted to analyse the issue of competitiveness in recent decade. Finally section V concludes the findings of this study.

II. Review of literature:

Since 1991 many scholars have tried to review the impact of liberalisation on Indian agriculture in different ways. Some studies mainly considered the impacts on agricultural output growth and yield levels while some studies analysed the impact of liberalisation on agricultural trade. Gill and Brar (1996) tried to analyse the competitiveness of rice and wheat of India in the light of domestic and international prices. A similar study was carried out by Gulati (2002) to analyse competitiveness of Indian agricultural trade prior to the signing of URAA (Uruguay Round Agreement on Agriculture) and then he also discussed the effects of globalisation on Indian agricultural trade. While Gill and Brar (1996) found that despite having high yield per acre, rice and wheat were not competitive to that extent but Gulati (2002) found that both in pre WTO period and in post WTO period; India had competitive advantage in the commodities of rice, wheat, maize and cotton. The main reason of this difference in findings is that the former study considered only Punjab as sample state while the latter gave its argument on the basis of some macroeconomic indicators. Apart from the studies on competitiveness of Indian agriculture; one interesting study was carried out by Suri (2006) to analyse the causes of agrarian distress of India before and after the economic reforms. The study found that various institutional factors such as lack of market incentives, lack of state support, smaller size of land holdings etc. were mostly responsible for this distress. The incompatibility of the interests between farmers and the political representatives was also come out to be an important reason of backwardness of Indian agriculture. Similarly, Bhalla and Singh (2009) analysed the impact of economic reforms and trade liberalisation on agricultural growth at state and regional level. Their study found that during the immediate post reform period, the growth rate of agricultural output, the net sown area, yield rates etc. were declined relative to pre reform period in India. However, they noticed that there was significant change in cropping pattern in India during the post reform period.

Ansari and Khan (2015) analysed the agricultural trade scenario of India and found that India had comparative advantage in the exports of rice, wheat, meat and edible meat offal, coffee and tea. However, they argued that the lack of infrastructural development posed a challenge in Indian agricultural market. This study found that globalization adversely affected

Indian agricultural export during 1990-2000 but thereafter the agricultural sector became more competitive.Charyulu and Prahadeeswaran (2016)also tried to analyse the competitiveness of agricultural commodities in India in terms of prices, quantity and their respective quality. They found that among many agricultural commodities; only cumin and groundnuts have trade competitiveness in international markets. Many factors had been cited in this study as the cause of this situation like fluctuations in currency exchange, lack of productive technologies, lack of infrastructural facilities and provision of high degree of protection or export subsidies in developed markets. A similar study was carried out by Jagdambe (2016) to analyse trade intensity of Indian agriculture with the ASEAN nations during 2001-2013 with the help of trade intensity index and modified RCA Index and found that export intensity of Indian agricultural trade with the ASEAN countries had been increasing over the period while the import intensity was declining.

Recently a study was carried out by Gulati et al (2020) to examine how the factors such as better and efficient allocation of natural resources, risk management reforms in agriculture, betterment of agricultural market etc. could be used to double the farmers' income. Among many factors, they argued that the farmers' income could be increased if the exports of India could be enhanced. For improvement in farmers' income, they suggested some policy reforms which basically includedimprovement of agricultural markets, expansion in R & D activities in primary sector, increasing the network of input services etc.

With this brief review of literature on the issue of competitiveness of Indian agriculture; one aspect is quite clear that the composition of Indian agricultural trade has undergone a significant change since 1991. This could be a reason of various factors such as natural factors, trade policies of government, price volatility etc. Among all these factors, it iswell recognised in the existing literature that change in the composition of trade also reflects the changing nature of competitiveness of the products. In this context, an effort has been made with this study to analyse the competitiveness of Indian agriculturesince 1991.

III. Indian agriculture during immediate post reform period:

The initiation of structural policies for economic reform during 1990-91 has changed the macroeconomic framework of India. Under this new framework through the change in exchange and trade policy, devaluation of Indian currency and through the relaxation of other restrictive frameworks; it was expected that this new framework would promote agricultural export in India and thereby would lead to rapid agricultural growth in India. Now, before going into the details of competitiveness of Indian agriculture; let us first briefly discuss the impact of this reform on Indian agriculture in terms of output growth, yield rates and cropping pattern.

The changes in the scenarios of Indian agriculture during 1990-93 to 2003-06 reflect the impact of economic reforms on Indian agriculture. The most interesting feature of this period is that during this immediate post reform

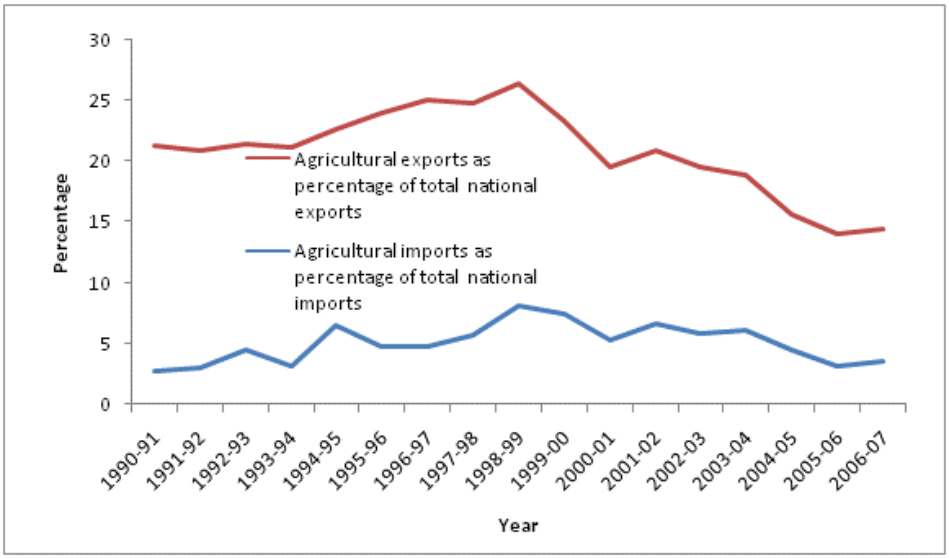
era; the agriculture growth rate declined from 3.37% per annum (1980-83 to 1990-93) to 1.74% per annum (1990-93 to 2003-06).Even in this same period, the yield growth rates of crops also declined from 3.17% (1980-83 to 1990-93) to 1.52% (1990-93 to 2003-06) per annum. The existing literature of that period argued that the main reasons of these declines were the visible declaration in investment in irrigation and other rural infrastructural facilities. However, there were considerable changes in cropping pattern during 1990-93 to 2003-06. This diversification was happened mainly due to the impact of new seed technology of 1970s. The use of improved technology and HYV seeds and fertilizers had increased the productivity of non-food crops and therefore the Indian farmers preferred to cultivate cash or non-food crops to get better prices or in other words better income. But at the same time it exposed the Indian farmers to various kinds of risks such as weather borne risks and risks related to price volatility.

Whether a country is able to do good business in international market depends completely on export competitiveness of the exportable commodities of that country. Given the quality of the products, the export competitiveness refers to a situation when the difference between the domestic supply price and foreign price is enough to cover a large number of charges (Gill and Brar; 1996). Thus, a competitive exporting country remains in a position to sell their commodities in foreign markets at lower prices even after covering all of the costs. If we consider the aspect of competitiveness of agricultural crops; we would notice that India had competitive advantage in rice, wheat, cotton and maize in both pre WTO as well as post WTO period (Gulati 2002). But the case was not favourable at all for oilseeds (Domestic prices of oilseeds were more than 60% of the world prices). Although India witnessed diversification towards oilseeds during 1980's but this trend declined after the reform. So, India imported edible oil from other countries due to rise in its demand. Rapeseed, soya bean and Sunflower had some competitiveness in Indian domestic market but they could not compete with the imports as the imported Palmolive olive was much cheaper during that time. However, it is also interesting to note that the edible oils processing industry was at more disadvantaged position than the oilseed production in India at that period. More specifically, the processing of oilseeds (ground nut and rapeseed mustard) had been reserved for small scale industries and these industries were deprived of scale economies at that period (Gulati, 2002).

In 1995-96, India became second largest exporter of rice in the world and with the growth of rice, it also started to export wheat in the year 1995. Unlike rice, the domestic price of wheat began to rise with shortages of wheat in domestic market. Hence India adopted the means of imports of wheat at zero import duty. But the zero import duty on imports did not have any impact on Indian overall balance of trade as the Indian wheat was highly competitive during that period. However the situation changed drastically since 1997. The East Asian crisis led to decline in world prices of most of agricultural commodities. This made Indian wheat less competitive in international market. Moreover, this decline of world prices led to huge imports of wheat to India despite bumper crops at home. So,

Indian government raised the import duty from zero to fifty per cent to reduce the imports in 2000-01.

Figure 1: Agricultural imports and exports of India as percentages of total national exportsand imports during immediate Post reform Period



Source: Ministry of Agriculture; Government of India

India's total volume of trade in agriculture was about 18 % of total export at the time initiating economic reforms and remained more or less consistent till 1994. But Indian agricultural export in the post WTO period had experienced many fluctuations since 1995 to 2006. For instance, during 1995-96 it was 19.13 which rose to 20.50 in 1996-97. But it declined from 1997-98 to 1999-00 and then became consistent for two subsequent years. Again, it started declining from 2002-03 to 2005-06 and after that it again rose. But the more depressing fact is that although it was expected that the agreements initiated by the WTO would promote or increase the exports of developing countries; it can be seen from the Table 1 that the agricultural export in India declined more drastically in the immediate post reform period relative to its import.

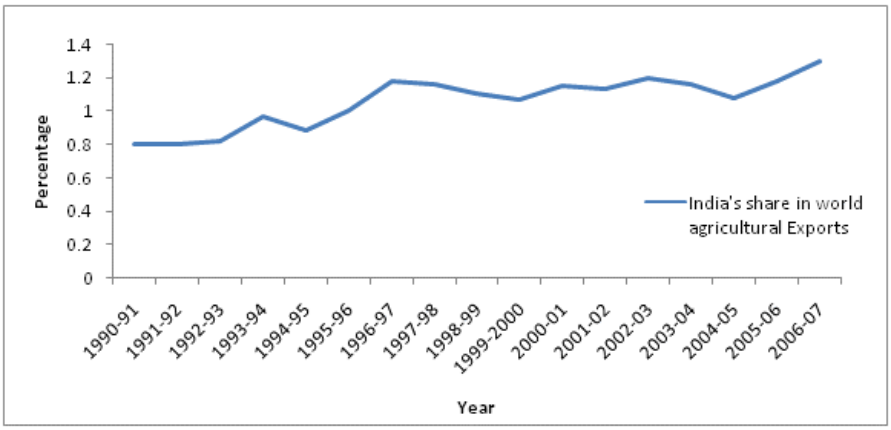
Table 1: Compound annual growth rate of Indian agricultural import and export in the immediate post reform era

Period	Agricultural Export	Agricultural Import
1991-95	21.78	48.96
1996-2000	5.55	28.51
2001-2005	9.77	17.21

Source: Ministry of Agriculture, New Delhi, India

But at the same time it would be important to note that India's share in world agricultural exports in the post WTO era (Figure 2). It had increased to 1.49% from 0.85% in the pre WTO era.

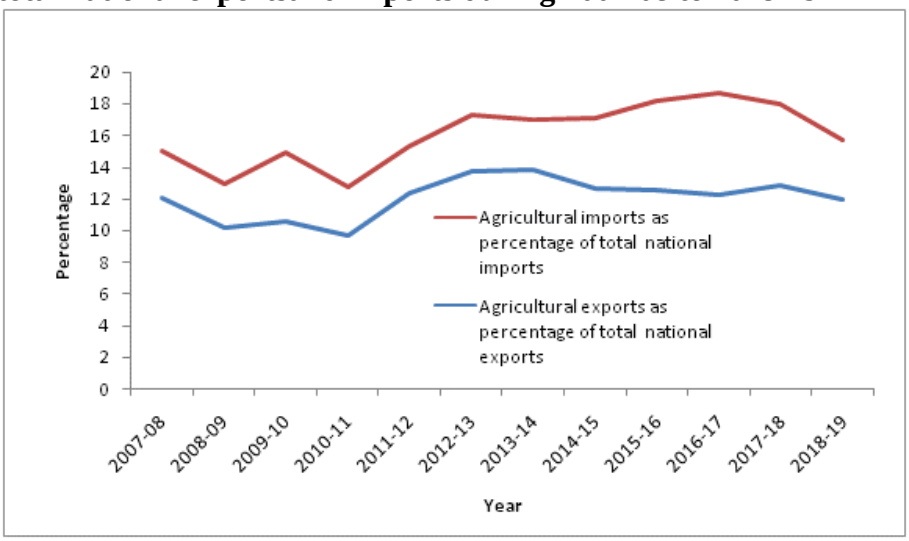
Figure 2: Percentage share of Indian agricultural exports (Value) in world agricultural exports during the immediate period of post reform
Source: WTO, International Trade Statistics



IV. Competitiveness of Indian agriculture during the recent decade:

India's performance in agricultural trade in world market had however improved since 2006-07. Indian agricultural exports had increased considerably since 2006 and even its compound rate of growth surpassed the growth rate of agricultural imports of India (Table 2). If we consider the annual growth rates of agricultural imports and exports of India during 2007-2018; we will notice great fluctuations in their annual growth rates. But if we look at their relative trends or in terms of India's total import and export; we will notice that both agricultural imports and exports of India has been following a steady increasing trend since 2007-08 with a marginal fall in 2018-19 as shown in figure 3.

Figure 3: Agricultural imports and exports of India as percentages of total national exportsand imports during 2007-08 to 2018-19

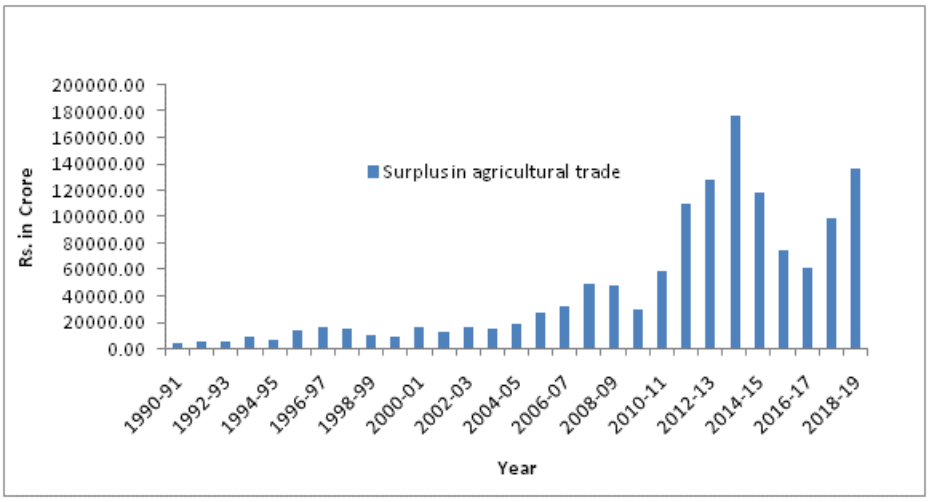


Source: Ministry of Agriculture; Government of India

In 2009-10, the growth rate of agricultural export was less than that of imports. This was mainly the result of prolonged drought that India faced during 2009-10. As a result of this decline in exports, India's agricultural

trade surplus also declined during 2009-10 (Figure 4). A similar impact on Indian agricultural trade surplus was felt during 2014-15 and 2015-16. The twin droughts of 2014 and 2015 had adversely affected the production in those years. As a result, agricultural trade surplus declined drastically during 2014-16 after reaching its peak in 2013-14 as shown in figure 4.

Figure 4: Surplus in agricultural trade in India since 1991



Source:Indiastat, Ministry of agriculture, India

Contrary to the expectation that liberalization of trade would promote growth in agricultural trade of India, it can be seen from table 1 and table 2 that India's compound agricultural exports growth rate had been at a lower level till 2010 as compared to the rate that was prevalent in pre-WTO period. However, the situation improved after 2010. Due to this improvement in agricultural exports relative to its imports, India also received its largest surplus in agricultural trade during 2013-14. Moreover, India's agricultural exports and imports grew at a faster rate than that of the world. Various issues of International trade statistics revealed that agricultural exports/imports in the world grew at the annual average rate of 7.85% during the pre-WTO period which became 7.72% during the post WTO period (Ghosh, 2017).

Table 2: Compound annual growth rate of Indian agricultural import and export during 2006-10 to 2011-15

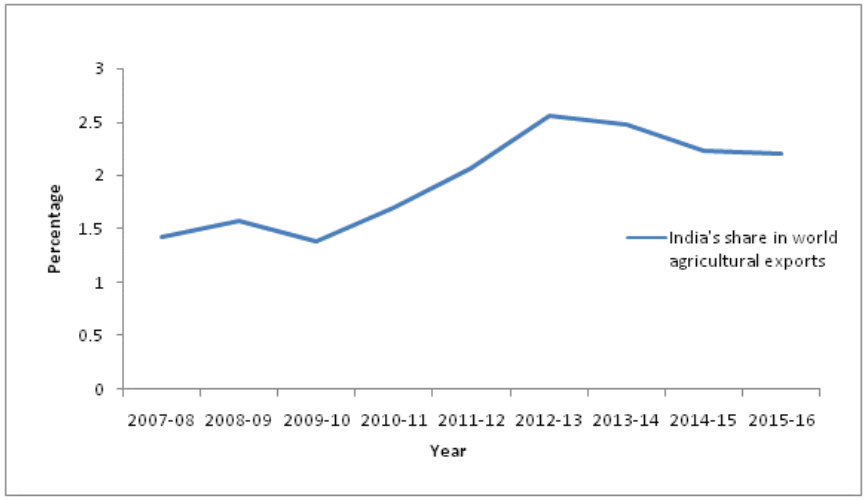
Period	Agricultural export percentage	Agricultural import percentage
2006-10	16.07	29.00
2011-15	31.71	22.04

Source: Ministry of Agriculture, Government of India, New Delhi

The trends of increasing agricultural imports and exports of India since 2007-08 can be considered as an important indicator of increasing integration of Indian primary sector with the global market. Moreover, in

the existing literature, it is shown that the extent of market integration can also be done by evaluating the correlation between domestic and international prices of agricultural products. Some existing studies such as Chand and Bajar (2012), Gulatiet. al (2013) and Ghosh (2017)[11] found that prices of Indian rice, wheat, maize and cotton etc. were highly correlated with the international prices.

Figure 5: Percentage share of Indian agricultural exports (Value) in world agricultural exports during 2007-08 to 2015-16



Source: WTO, International Trade Statistics

Now let us look at the composition of Indian agricultural trade. The change in the composition of any trade often reflects the international competitiveness of the products along with the trade policies initiated by the governments. The triennium average value of exports of agricultural products and its relative contribution to total agricultural exports revealed significant change in Indian agricultural trade over the years. Since 2007; food grains, spices, guar gum meals, sugar, meat and cotton have substantially improved their share in agricultural exports. More specifically, Food grains (including rice, wheat, pulses and other cereals) have improved its share in the basket of India's agricultural export over the years. Cotton has emerged as the second most dominant crop to be exported from India. Its share in India's total export has also increased significantly from 5.86% in 1992-93 to 10.22% in 2012-13. However, the marine products has lost its dominance in India's agricultural export basket over the years but it is still considered as the third most important agricultural export items of India. The other agricultural products such as meat and preparations, guar gum meals, spices and groundnut has also emerged as important commodities of India's agricultural exports in recent two decades. This is because all of these commodities have emerged as quite competitive in international markets in the recent decade apart from other cereals products of India.

The composition of imports has also undergone significant change during the same period. The analysis of composition of imports will help us to identify the agricultural products which are not competitive in international market. During the recent decade, wood & wood products (13.4%), pulses

(11.59%), fruits & nuts (5.89%) and cashew (13.94%) were the most prominent agricultural imports of India (Ghosh, 2017)[11].

V. Conclusion:

With this study, an effort has been made to analyse the competitiveness of Indian agriculture in post reform and post WTO periods. It is found from the study that although it was expected that the liberalisation would promote agricultural exports of India; the annual growth rate agricultural export showed something else. If we consider the annual growth rate of agricultural exports, we will notice that the exports of agricultural products from India had reduced drastically in the immediate post reform period (1994-2006). But if we consider the agricultural exports relative to India's total national export, we will see improvement during the same period. Moreover the analysis of the competitiveness of the agricultural products revealed that rice, wheat, maize, tea, cotton were mostly competitive during 1990-2006. However, the oilseeds were not at all competitive during that period. Two factors came out to be mainly responsible for this lower competitiveness: they were availability of Palmolive oil in international market at cheap price and scale of diseconomies associated with the oilseed processing industries. It was found that both the compound growth rates of agricultural exports as well as agricultural imports had declined during this period; but the growth rates of Indian agricultural exports declined more sharply than that of agricultural imports.

However, both the agricultural exports and imports have maintained more or less an increasing trend since 2007-08. It can be regarded as an indication of increasing rate of integration of Indian agricultural market with the global market.However, droughts of 2009-10, 2014-15 and 2015-16 had adversely affected production and in turn agricultural exports declined in these years. As a result, Indian agricultural trade surplus also declined during these specific years.But it would be important to note that Indian agricultural trade has always been producing surplus since 1990s. But the increasing trend got prominence only after 2004-05. Many studies in the existing literature as well as relative shares of exports of the agricultural products in total national agricultural exports has revealed that the composition of Indian agricultural exports and imports have undergone a significant change. Food grains including wheat, rice and other cereals, marine products, cotton, meat and preparations, guar gum meals and ground were considered as most competitive agricultural products in the international markets during this period and the shares of these products in the total agricultural exports has also increased considerably in this recent decade.

Despite the steady increase in agricultural exports and increasing agricultural trade surplus, the growth rate of output and yield levels have experienced a significant decline in the post-WTO period as compared with the pre WTO period. It is often argued in the existing literature that agricultural export policies have been frequently changed in India to protect the demands of domestic consumers. It has created uncertainty among the farmers and also adversely affected the exports. Therefore changes in

policies will be ineffective or half-hearted unless two fundamental aspects are addressed. Firstly, to whom the priority should be given- farmer or the producer? Second, the poor consumer should not always be given highest priority at the expense of the farmers. The most sustainable way of improving the conditions of Indian agriculture is by increasing investments in productivity enhancing areas of primary sector. Such investments will reduce per unit costs in production and thus will make Indian exports more competitive in the international markets.

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