FOREIGN TRADE OF INDIA IN SELECTED AGRICULTURAL COMMODITIES

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CERTIFICATE

This is to certify that the thesis entitled "FOREIGN TRADE OF INDIA IN SELECTED AGRICULTURAL COMMODITIES" submitted by Mr.S. VIDYASHANKARA for the degree of MASTER OF SCIENCE (AGRICULTURE) in AGRICULTURAL ECONOMICS of the University of Agricultural Sciences, Bangalore, is a record of research work done by him during the period of his study in this University under my guidance and supervision and the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles.

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Bharathi Satyanarayana

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INTRODUCTION

I. INTRODUCTION

Foreign trade has played a pivotal role in the economic development of many countries. Trade is often referred to as an "Engine of Growth" since it has been interpreted as a dynamic force in widening the size of market beyond the political frontiers of a nation, increasing the scope for division of labour, permitting capacity utilization of the fixed resources and stimulating innovations. All these factors would in turn bring about favourable changes in the economic outlook of the trading nation.

Mill (1965), a well-known classical economist while discussing the importance of trade in development stated that "efficient employment of productive forces of the world is a direct economical advantage of foreign trade. But, there are besides, indirect effects, which must be counted as benefits of high order. One such is the tendency of every extension of the market to improve the process of production. A country which produces for a large market than its own, can introduce a more extended division of labour, can make greater use of machines and is more likely to make inventions and improvements in the process of production".

Further, international trade brings about the following favourable socio-economic changes. They are:

- It stimulates economic growth through increasing consumption, world output and providing accessibility to scarce resources and world-wide markets.

- It brings about equality among trading nations through equalization of factors prices, increasing real incomes and making efficient use of scarce resources.

- Finally, it helps the participating countries to achieve development by promoting and rewarding those sectors of the economy where individual countries possess a comparative advantage either in terms of labour efficiency or factor endowments.

According to Todaro (1981), the essence of trade theory lies in the fact that the welfare of the society is substantially improved by an increase in and distribution of world output of goods and services, which is due to international trade.

Considering these welfare aspects, classical economists advocated some trade instead of no trade and more trade instead of less trade. True to their hopes and wishes, foreign trade played a vital role in the

economic development of the presently developed countries at a time when they were developing. The assumptions made in the classical theory of international trade and the theories which followed were almost true and coincided with the conditions that existed in those countries.

But in the context of the presently developing countries, the situation is altogether different and the assumptions of trade theories sound restrictive. Thus, trade could not play the role as dynamically as envisaged in the theory. This observation does not mean that trade has not played any positive role. It has played a crucial though not to the extent as anticipated.

India has maintained sound international relations and trade. This statement needs no substantiation since capital goods, foreign capital and maintenance goods - all the three much needed for her industrialization and food grains at times of scarcity, have flown into India from abroad almost whenever needed. Similarly, foreign markets have helped her expand production of items in which she had comparative advantage, thus generating more employment and income. These facts speak of the favourable effect the trade has had on economic development of India.

Developing countries are characterized by their inability to transform their untapped natural resources into final goods. This inability arises due to inadequate domestic savings. Thus, the low level of domestic savings in itself cannot afford the capital equipments and other requirements much needed for the transformation of natural endowments. Thus, if a nation, facing a situation described above, wants to avoid frustration of low investment because of low level of domestic savings, it has to import the capital requirements from other developed countries. Thus, imports become imperative for the economic development of the nation in question.

Chenery and Strout (1966) argued that the development process is limited not only by inadequate savings but also by lack of availability of imports. To quote: "we postulate a minimum import level of G.N.P. This important requirement results from the relatively inelastic demand for manufactured goods currently imported - particularly intermediate goods and investment goods - arising from the lack of domestic supply and their necessity in production. Thus, it is clear that import of capital needs, both for expansion and maintenance, technology, spares and wage goods at times of scarcity becomes imperative."

Imports into a country, not to speak of its size which depends upon the size of public and private investment are thus justified, for the role they play in economic upliftment of the people. Imports are either financed by foreign aid or soft loan or exchange earnings. When the import bill exceeds the limit of exchange earnings, the country is said to be facing an adverse balance of payment situation, a cliche for the developing countries. In this situation exports assume importance.

No country can survive in isolation. A developing country like India with a growing infrastructure needs import of capital equipment and critical raw materials, which have to be financed by export earnings. Apart from meeting the import requirements, through export earnings, external aid and interest accrued to it have to be repaid. In addition, an expanding export trade can be a dynamic factor in development process. Export trade which involves specialization in production of items in which the country has comparative advantages results in efficient use of resources, technological improvement, inventions etc. Moreover, the growth in export of labour intensive products can make a significant contribution to mitigate the problem of unemployment.

Agriculture occupies a place of pride in the Indian economy. This sector accounts for a considerable proportion of gross domestic product, provides livelihood for more than half of the country's population and supplies raw materials to many industries. Similarly, in foreign trade also, the subject of present relevance, agricultural commodities have an important role to play.

Agricultural imports constitute a sizeable portion of total imports of India which may be re-classified as food imports, non-food agricultural imports and agricultural input imports.

Food imports assume importance when domestic food output is not expanding at a rate that would suffice the demand, which increases due to rapid industrialization and increase in population. Thus, if importing food item is not resorted to, it would lead to increase in prices of wage goods : portend of inflation. Therefore, food imports become inevitable in order to bring about stability in the domestic food market. Major commodities which figure in India's food imports are: Cereals and cereal preparations, dairy products, vegetables and fruits, cocoa and spices and fish and fish preparations.

Non-food agricultural imports are of vital importance since many of them serve as raw materials for domestic industries, while some fall in the category of those which cannot be produced domestically but are necessary for consumption. The rest are imported to ease supply situations, which otherwise fluctuate because of the biological nature of production. The major commodities falling in this group are: raw cotton, raw jute, raw wool, vegetable oils (essential and non-essential) and oil seeds.

Third kind of agricultural imports are inputs needed by the agricultural sector, such as, fertilizers (crude and manufactured), agricultural machinery and implements and tractors (other than steam).

Agricultural development is a pre-requisite for economic development of a nation. For development of agriculture, reflected by increased production and productivity in the agriculture sector, inputs such as fertilizers, plant protection chemicals and agricultural machineries are vital. When domestic production of these inputs are limited by infrastructure and raw material availability, importing of these items become an obvious choice. Thus, input imports are justified.

Inability to compete with the developed countries in the field of manufactured goods makes the developing countries have comparative advantage in the production and export of primary goods and raw materials. India, even though things are changing in recent times, in no way is an exception to this phenomenon. In the past she earned about sixty per cent of foreign exchange from export of items, such as agricultural commodities and raw materials.

Agricultural exports of India can be classified into two major categories, viz., food and non-food agricultural exports.

Food exports of India include tea, coffee, spices, vegetables and fruits, sugar (excluding molasses) and fish and fish preparations.

The non-food agricultural exports consist of raw cotton, raw wool, unmanufactured tobacco, oil cakes and vegetable oils (essential and non-essential).

From the foregoing, it is clear that both foreign trade and agriculture are important in the context of economic development. A combination of the two would be foreign trade in agricultural commodities, an important

sector for the developing countries like India. Hence, a study on foreign trade of India in selected agricultural commodities is meaningful and worthwhile too. Therefore, here is an attempt made in this regard with the following objectives:

i. To examine the growth of selected agricultural commodities which occupy a prime place in India's imports and exports.

ii. To study the changes, if any, in composition of agricultural trade of India.

iii. To know the changes, if any, in the direction of trade in these agricultural commodities.

REVIEW OF LITERATURE

II. REVIEW OF LITERATURE

There are quite a number of studies on foreign trade of India. Any study for that matter on foreign trade invariably included examination of trade in agricultural commodities because of the importance of these items. However, exclusive studies on trade in agricultural commodities are not in commensuration with the importance of this sector.

In this chapter, a brief review of related literatures are presented under the following heads:

2.1 Measurement of growth and growth rates and

2.2 Foreign trade of India in agricultural commodities.

2.1 Measurement of growth and growth rates:

Chatterji (1966) studied the growth of agriculture in India for the period 1950 to 1963. He used the linear trend to measure the growth of area and production. The regression co-efficient of the trend equation was considered to be the growth rate.

Minhas (1966) in his rapporteurs report on 'measuring agricultural growth' opined that the linear

trend equation Y = a + bT gives only the absolute increase per unit of time. He concluded that excepting the case of indexed variables, 'b' of the linear trend equation would always be in terms of the unit of 'y'. Hence, before using 'b' as growth rate, the units must be eliminated. This could be done by dividing 'b' by the appropriate average. He suggested that 'b' be divided by the harmonic mean of 'y'. The validity of the suggestion was however, seriously doubted when the series contained a wide range of fluctuations owing to low harmonic mean.

Blyn (1967) analysed the effects of several methodological aspects on measurement of growth rates. He used both linear and compound forms, but failed to standardize 'b' of the linear equation as suggested by Minhas (1966). He concluded that the linear and the compound growth rates would be more or less the same if a proper base was used to standardize 'b'.

Abraham and Raheja (1967) examined the growth rate of production of wheat and paddy in India for the period 1950-51 to 1964-65 using different functional forms, such as, linear, Cobb-Douglas, semilog and exponential types to measure the growth. Standard least square procedure was used to estimate the relationships. They considered

co-efficient of determination as the criterion they selected Cobb-Douglas form for further analysis.

Dayal and Shiam (1968) used different methods to compare growth rates. They stressed the need to standardize 'b' in $Y = a + bT$. They suggested a method to standardize 'b'. If the growth followed geometric rather than arithmetic trend, then 'b' should be treated as absolute growth rate and the linear equation could be standardized using the arithmetic mean.

Rudra (1970) commenting on methods of calculating growth rates indicated the importance of theory. He identified three different curves namely straight line $Y = a + bT$, the semi-logarithmic curve, $Y = ab^T$ and the Gompertz curve for the purpose of fitting trend to the same statistical data.

Reddy (1978) examined the statistical procedures used in fitting various growth functions. He emphasized the need to consider first by co-efficient of determination (R^2), D.W. statistic and 't' values and secondly the accuracy of the estimated growth rates as measured by the standard error or co-efficient of variation of the estimated growth rates, for proper assessment of the underlying growth phenomenon.

Aiyasamy and Subramanyam (1979) estimated the compound growth rates of area, productivity and production of paddy in Tamil Nadu using an exponential function of the form $Y = AB^t$ for the period 1951-52 to 1964-65 and 1964-65 to 1973-74 separately. The former representing the Pre-green Revolution and the latter the Green Revolution period. The growth rates of the two periods were compared.

Leela and Sarma (1982) computed compound growth rates for the values of exports during the period 1970-72 to 1978-80. They used a growth function of the type $Y = Ae^{bT}$ where Y represented annual value of export item and T the time in years.

Chandrakanth (1983), commenting on the suitability of different functional forms of growth, both of the model and method of measurement of growth rates opined that in any time series study R^2 value alone would not determine the goodness of fit. He suggested the computation of D.W. statistic which would help to know the extent of serial correlation. Before selecting the type of growth function, he suggested to plot the raw data on graph, based on which a particular kind of growth function could be selected.

2.2 Foreign trade of India in agricultural commodities

Poduval (1952) studied export trade of India in agricultural commodities. By keeping suitable time periods he attempted to capture the effects of Second World War and partition of India after independence on India's export trade.

Discussing the effect of World War II, Poduval reported that India's countrywise trade had undergone a change since it could not trade with countries such as Japan, Germany, Italy etc., and thus lost many European markets. On the other hand, the study revealed that partition had changed commoditywise pattern of trade. Before partition, India had a near monopoly over raw jute and raw cotton trade but after partition it became a net importer of these two commodities because of transfer of major cotton and jute areas to Pakistan. Apart from this, he studied relative share of agricultural exports to total exports which was 53 per cent in 1938-39 came down to 28 per cent in 1948-49. The author concluded that the imbalance in prices of commercial crops and food grains tempted the farmers to shift to the cultivation of commercial crops instead of food crops, which led to shortage of food grains.

Shah (1952) discussed the trends, composition and direction of India's agricultural trade. He observed a declining trend in the relative share of agricultural exports in total exports while the share of agricultural imports in total import bill increased leading to an unfavourable balance of agricultural trade.

The increase in agricultural imports was due to increased raw cotton and raw jute imports which earlier (pre-partition) came from internal trade. With regard to the direction of trade he reported that U.S.A. remained as the major trading partner followed by Commonwealth countries.

Zacharias (1952) studied post-war export trade in agricultural commodities highlighting the commodity composition and direction of trade. He pointed out the declining share of agricultural commodities which had a lion's share (75 per cent) in pre-war trade was reduced to 30 per cent. He opined that this change would be more or less permanent because of the growing domestic demand for these agricultural items. He also observed that the agricultural export basket consisted more or less the same items while there were changes in their relative shares. These changes were attributed to diminishing domestic production, growing domestic demand and control systems.

He reported that U.K. was the major importer of Indian tea, while raw cotton was shared by U.S.A., Japan, Belgium and U.K., while France and Germany had lost. The major foreign markets for Indian tobacco and oilseeds were U.K., Egypt, Sweden and Belgium. U.S.A. and U.K. accounted for major share in Indian spices exports.

The author stressed the need to nurse these markets despite making efforts to diversify and making inroads into other markets. He opined that scope for exporting raw cotton and raw jute was limited while prospects were better for tea, linseed, tobacco and spices.

Balasubramaniam (1964) began with a discussion on need for exchange earnings which assume importance in the wake of financing the import needs. He analysed export performance of tea, coffee, cardamom, cotton textiles, jute manufactures and sugar. He concluded that in order to increase export earnings from these commodities there was a need to step up production, publicity and propaganda in the foreign markets.

Jha (1964) discussed trends in India's agricultural exports during the decade ending 1960. He reported that during this decade, tea, jute, cotton, spices and

vegetable oils were the major items that constituted agricultural exports. Among these items, tea, alone registered an increase in terms of value of exports while among the rest some were stagnant and a few others had declined.

The author mentioned that the sugar exports suffered due to cut-throat competition, increased domestic consumption and preference of consuming countries for sugar from their allies, which resulted in a decreased export earning from sugar.

He suggested to increase efficiency of production of tea, because increased cost of production was making it less remunerative in the export markets. He also opined that peppar had better export potential.

Kamaladevi (1964) analysed changes in pattern of agricultural exports and performance of selected agricultural commodities in relation to domestic consumption, price, etc., for the period 1949-50 to 1960-61. Based on this study, she concluded that increase in the traditional exports like tea, tobacco, spices and oil seeds were not considerable, on the other hand, some of them even declined. She also noticed entry of new items into

India's export basket, which the author felt should be increased.

Another interesting fact revealed by the study was, despite an increase in domestic production, exports did not increase proportionately, which was an indication of increased domestic consumption.

Misra and Das (1964) examined trends in foreign trade of India in agricultural products and discussed their prospects. The authors opined that tea, coffee, sugar and feeding stuff had scope for increased exports. There were some domestic and international factors which stood in rapid expansion of exports. The authors felt that even if these obstacles were removed, their shares were not likely to change significantly. These factors made the policy measures to be tilted in favour of import substitution.

They opined that food grain imports had become a serious strain on India's balance of payment. If these imports were to be substituted through achievement of self-sufficiency in food grain production, it could save foreign exchange earnings worth Rs.112 crores. Import substitution was also possible in cases of raw jute,

agricultural machinery and implements, fertilizers and fats and oils. They concluded that by means of import substitution and export promotion there was enough scope for reducing demand for and increasing supply of foreign exchange reserves which are much needed for the development of the nation.

Singh (1964) reported that India's export trade was built around a few agricultural commodities of a narrow range which included tea, cotton and jute manufactures. These three items together accounted for 55 per cent of the total export earnings and another 25 per cent was accounted by raw jute, cashewnuts, hides and skins, vegetable oils and spices.

The study of exports between 1950-51 and 1962-63 revealed that the constituent commodities and their destination remained more or less same with a great deal of concentration. Based on this, he inferred that India's export trade had a built-in instability. Besides, he observed stagnation in cotton textiles and jute manufactures exports.

John (1967) compared export performance of selected agricultural commodities during 1965 and 1966 to capture

the effects of devaluation. He found that the export earnings of all agricultural commodities except coir yarn and raw jute declined, the range of decline varying between 62 per cent in the case of crude rubber to about 3 per cent in the case of essential oils.

The commodities considered for the study included oil seeds, nuts, vegetable oils and fats, oil cakes, unmanufactured tobacco, spices, raw cotton, raw jute, sugar, fruits and vegetables, essential oils, tea, coffee and a handful of agro-based industrial goods. Comparing the unit value realizations of these items, he opined that export earnings of these commodities fell for reasons other than international prices. He referred to the unit values during the study period, some of which increased while others were more or less constant. He attributed the reasons for fall in export earnings to fall in quantity of these commodities exported due to decreased production coupled with increased domestic demand. He discussed other items, such as, increased competition in world market, restriction by importing countries which hindered India's export items like tea, coffee and sugar despite a stable production.

Rosario (1968) studied the structure of India's

foreign trade during the period 1951-52 to 1965-66. He focussed attention on the changes that took place in export trade particularly in the commodity composition. He discussed composition in the context of world trade and inferred that trade in manufactured goods during 1953-65 increased by 87 per cent while world trade in agricultural commodities increased by a meagre 35 per cent. As a result of differential pace of growth share of agricultural commodities in total world trade declined considerably.

The author used standard international trade classification to categories the commodities that appear in India's export basket.

Food items group: In this group five items accounted for 95 per cent of total food item exports which remained constant throughout the period. The contribution of these commodities to India's total exports increased sharply.

The study revealed that tea and spices alone accounted for nearly 80 per cent of total exports. Their share came down due to export diversification, wherein the share of commodities such as sugar, coffee etc. had increased substantially.

Tobacco maintained its share, which could be due to an increase in its total export value.

Crude material group: Studying this group which included, oils, oil seeds and kernels, wool and animal hair, cotton, jute etc., he reported that absolute value increased by 25 per cent but relative share was stable. He observed a sharp decline in raw cotton exports. India became an importer of oils both edible and non-edible due to increased domestic demand. Raw jute exports too declined.

He concluded that the increase in export earning was mainly due to commodity diversification.

Pant and Mehra (1969) studied the performance and prospects of India's exports during 1966-67 and 1967-68. The study indicated that actual exports during 1966-67 were far behind the fixed target which was just two per cent more than the previous year's exports. But actual exports were ten per cent less than that of 1965-66, thus twelve per cent behind the target. This decline was attributed to continued drought during those years which brought down the supply of agricultural and agro-based exports. Devaluation of Indian currency had a

temporary dislocating effect on export trade. Also reduction in foreign demand for some of the agricultural items brought down the unit prices of tea, sugar, oil cakes, tobacco, pepper, etc., They suggested policy measures such as incentives to production, restraint on consumption, quality control, profitability, international commercial policy, increased efficiency etc., to increase export earnings.

Boothalingam (1971) opined that external trade was an important variable in the economic equation of a nation since it provided the required finance for the import needs of a country. Therefore, the rate of expansion in exports determine to a larger extent the pace of economic growth.

He observed sluggishness in India's exports which he attributed to predominance of traditional items which had unstable demand and supply conditions and secondly to increased competition from alternative sources of supply.

Ghosh (1971) examined the export trade and import substitution in relation to India's economic growth. The study revealed that the share of traditional exports fell sharply between 1950-51 and 1968-69. He observed near stagnation in exports of jute manufacturers, tea and cotton textiles. He explained that in tea this was due to slow growing international demand and a fast growing world

supply which lead to decreased unit prices. On the other hand, jute manufactures exports suffered due to increased competition from Pakistan, which had improved infrastructural facilities and therefore could supply better quality jute. Similarly, cotton exports were hampered by competition from Japan, Taiwan, Hong Kong and Pakistan.

Commenting on exports of oil cakes, cashew kernels and tobacco which registered a significant increase, the author felt that India had a natural advantage in these items. Yet the increase in exports had been no greater than the increase in general world demand and, in fact, been substantially below the overall growth of world trade.

The author observed that the import of food grains was diminishing while raw jute and raw cotton imports were stagnant. On the other hand, fertilizer imports increased.

Apart from mentioning the good effects of import substitution the author cautioned that this tool might become self-defeating and may lead to lop-sided and uneconomic cost structure.

Ram (1971), expressing concern over the declining share of India's trade in the world trade, concluded that

it was due to the fact that a very large part of export earnings continued to emanate from agro-based products which by their very nature were handicapped by frequent fluctuations in demand and consequent price and thus making the exchange earnings fluctuate. Fluctuations in exports were also due to instability in supply.

Discussing geographical concentration of India's trade the author cast light on prospects of export market diversification to co-developing countries besides nurturing the present trading partners.

A study by Gupta (1972) revealed that agricultural commodities accounted for as much as 58 per cent to 75 per cent of total exports. He reported that exports of agricultural commodities was Rs.423 crores in 1966-67 increased to Rs.500 crores in 1970-71 maintaining a rising trend. There was a slump in agricultural exports due to decline in tea exports during 1969-70. In order to achieve 7 per cent growth in exports as envisaged in the Fourth Plan Draft, it was necessary to step up exports of traditional items.

The author assessed the performance of tea, coffee, spices, cashew kernel, vegetables and fruits, oil cakes,

oil seeds, unmanufactured tobacco, raw cotton, raw jute, marine products and raw wool. Exports in these items were hampered by wide fluctuations in production, increased domestic consumption and increased cost of production.

Pandey and Ramakrishna (1973) discussed the effects of non-tariff barriers on the flow of exports from developing countries to developed countries. Whatever the benefits which accrued to developing countries due to tariff concessions were offset by non-tariff barriers. They indicated that agricultural products both processed and raw were more affected than the manufactured and semi-manufactured items. They discussed various non-tariff barriers imposed on tea, coffee, tobacco, spices, cashew kernels by the developed countries.

Shah (1973) studied structural changes in India's foreign trade. He attributed changes in the direction of trade mainly to tying the aid with purchases from donor countries. Together with this, Rupee Trade Agreement with Eastern block had substantially shifted India's trade relations from Western nations to Eastern countries. Despite this, U.S.A. still remained as the major supplier of India's import requirements followed by United Kingdom. Other countries were Canada, West Germany and U.S.S.R.

He reported that India's pattern of import trade had changed reflecting the impact of industrial development. Major import items were capital equipments, machineries and basic industrial raw materials apart from food grains which was imported at times of scarcity and drought.

Exports according to the study were stagnant during First and Second Plans while it took-off during Third Plan.

In general, the author felt that India's export trade was becoming broad based. He stressed the need to expand production and productivity of export sector.

Parekh (1975) discussed several issues pertaining to India, in the context of world trade. He observed a declining share of India in world trade. He suggested measures such as reallocation of resources, (for export sector that fetch maximum foreign exchange) identification of domestic bottlenecks which hamper export growth and creation and improvement of necessary infrastructures like shipping and communication facilities to double the export earnings.

The author indicated new avenues like petroleum exporting countries which can serve as important markets for Indian exports.

Kelkar and Sharma (1976) analysed time series data from 1961-62 to 1973-74 and reported that the structure of India's exports had undergone a radical change during this period. Traditional items like tea, jute manufactures and cotton textiles were being replaced by items like engineering goods, chemicals and marine products. They opined that this trend towards export diversification should continue in order to exploit demand and supply elasticities as well as to reduce India's dependence on traditional goods facing inelastic demand and unstable prices, at the same time efforts must be made to sustain the world markets in traditional goods as well.

The authors observed supply constraints in raw cotton, raw jute, tea etc. and therefore their share was decreasing.

Verma (1976) assessed the performance of India's exports and imports since independence. He reported that the average annual exports were ₹.930 crores during First Plan and ₹.977 crores during Second Plan. This stagnation in exports was due to lack of concrete policy measures. During Third Plan, the annual average stood at ₹.1178 crores, registering a 4 to 6 per cent increase per annum. However, exports declined due to drought during the

penultimate year of Third Plan. Since then exports picked up. In Fourth Plan, it increased at a compound rate of 12.7 per cent.

In case of imports, during First Plan period the annual average imports were valued at Rs.1047 crores which increased to Rs.1553 crores during Second Plan (annual average). The imports shot upto an average of Rs.1950 crores during Third Plan. In Fourth Plan, imports further increased. In 1975-76 imports increased by 12 per cent over the previous year.

From the above results, he concluded that imports when compared to exports were increasing at a faster rate, which had strained balance of payment situation, In order to maintain favourable balance of payments situation the author contended that the exports should be doubled. He opined that in the absence of aid, exports were the lone criterion to finance the import needs of India.

Kumar (1979) reviewed the performance of agricultural exports during 1976-77 and 1977-78, which included study of tea, fruits and vegetables, rice, tobacco, sugar, spices and cotton. He indicated that agricultural exports accounted for 42 per cent of total exports, the figure

would be higher if jute manufacturers and textiles were to be included.

The author opined that the exports of agricultural products had been under constant review so that shortage of essential commodities in agricultural sector might not hit the domestic consumers. It was due to this reason that some of the items falling in the category of essential commodities had shown indefinite trend in exports. Depending upon the domestic requirements, with policy instruments exports of these items were regulated.

He stressed the need to process some of the export items which would employ domestic labour and increase the value of the product. He pointed out to the lack of proper storage and transportation facilities which led to loss of quality. The author maintained that in order to improve India's image abroad, it was necessary to go for better packaging and proper deliveries.

Anonymous (1980) emphasized the need to create larger export surpluses in order to finance the growing import bill. To dovetail this need, policies had been changed from Plan to Plan. Despite these efforts the exports followed a zig-zag pattern over the decades. The

author attributed this instability to competitive conditions in the international market and level of business activity abroad and the extent of the pull of the domestic demand.

The study revealed that during the Sixties exports registered a 3 per cent growth while it averaged 6 per cent during the Seventies. However, in the concluding years of the Seventies this tempo was not maintained. Imports too maintained an upward trend, because of the hike in oil prices.

Rao (1980) studied the performance of various export items both in terms of value and volume. He reported that there was substantial growth in exports of sugar, iron and steel, vegetables and food products.

Discussing unit value realized by Indian agricultural export items, he indicated that unit value index of all exports rose at an annual average rate of 10.61 per cent during the period 1970-71 to 1976-77. This was due to increased unit values of sugar, groundnut, tobacco, spices, tea, coffee, jute and cotton textiles as a result of world commodity boom of 1973-74 and 1974-75. On the other hand, unit values of fish and fish preparations, cashew kernels, coffee showed an increased in later years.

He concluded that as a result of increase in the quantum and unit values, the overall earnings from exports rose from Rs.1535 crores in 1970-71 to Rs.5146 crores in 1976-77, an annual average increase of 21 per cent.

Agarwal et al. (1982) emphasized the low bargaining power of the developing countries in respect of their exports as well as imports, which adversely affected their balance of trade. The authors concentrated mainly on commodities such as sugar, tobacco, tea, coffee, groundnut and jute. They attempted to study the production and pattern of exports of these commodities. Using time series data from the period 1960-1978, they computed correlation co-efficient to determine the relationship between level of domestic output and exports of agricultural commodities. There were wide fluctuations in production and exports of agricultural commodities over time which according to the authors adversely affected India's credibility as a dependable supplier in the international market.

It was also observed that during the years of low domestic production the percentage share of exports in total production of the commodity went up substantially and adversely affected the interests of domestic consumers. The study revealed that there was a positive and significant

growth trend in production in the cases of coffee, tea and tobacco, while quantity exported was positive and significant only in the cases of coffee and tobacco. The correlation co-efficient between quantity exported and domestic production was positive and significant in case of coffee, while in others it was not significant.

The authors suggested stabilization of production and buffer stock operation which would in turn bring about stability to India's export earnings.

Gill and Ghuman (1982) showed that in the post-independent period the share of food and raw materials in the export trade of India registered a decline while that of manufactured and semi-manufactured items had gone up.

The analysis of trend in nine export items revealed that their share declined from 33.9 per cent during Third Plan to 19.4 per cent during the Fifth Plan. Three commodities namely raw cotton, raw wool and animal hairs, hides and skins declined in their importance. This decline was attributed to use of these items as raw materials by the domestic industries such as cotton textiles, woollen and leather industries. Exports of unmanufactured tobacco was stable.

Among other items coffee alone improved its share while the rest, viz., tea, cashew kernels showed a decline. The authors indicated corrective policy measures such as increased productivity in agricultural sector, market surveys etc., to improve foreign exchange reserves.

Leela and Sarma (1982) analysed trends in the principal exports of India in terms of value and volume. They also computed compound growth rates of principal exports for the period 1970-72 to 1979-80.

The results of trend analysis showed that jute manufactures, tea and cotton fabrics increased in terms of value, while in terms of quantity cotton alone increased.

Among others, almost all commodities studied increased in value while in terms of quantity, only tobacco, oil cakes, coffee and fish and fish preparations increased.

The results of growth rate analysis showed that but for raw cotton all other items had a positive growth rate.

Mukherjee (1982) analysing the composition of exports, underlined the fact that about 70 per cent of current Indian exports were contributed by agricultural

commodities directly and indirectly. In the context of increasing agricultural exports the author underlined some of the factors which inhibited this expansion. They were inelasticity of demand for primary products, limited supply possibilities due to low productivity, competition among the countries supplying primary products, recession, increased protectionism in the developed countries and competition from substitutes.

Another factor which made the author express concern was decreasing unit values of export items. This again frustrated objective of achieving economic growth through export expansion in agricultural commodities.

Prasad and Pal (1982) computed the relative shares of different agricultural commodities in India's exports and observed that the contribution of agricultural commodities to total exports was declining in recent years. The authors suggested policy measures to increase production in these items since domestic market was competing with the export sector.

Prasad et al. (1982) attempted to examine the contribution of agricultural commodities to India's foreign trade, commodity composition of exports and imports and share of

exports in production. They also suggested policy measures for the expansion of agricultural exports.

Despite noticing decline in the share of agricultural exports in total exports, the authors opined that agricultural exports were of crucial importance, Studying the share of exports in relation to production between 1960-61 and 1979-80, they observed an increasing trend in the cases of sugar, tobacco and coffee and reverse trend in the cases of tea, jute and cotton.

Kabra (1983) opined that in the absence of foreign aid, limited competitive ability of semi-manufactured and manufactured items in international markets and limited flow of foreign currency from non-resident nationals working abroad, export earning from agricultural sector becomes crucial. He cautioned the policy makers that if these export items were relied upon for long time, it may bring about changes in cropping pattern which would in turn lead to growing of commercial crops instead of staple food crops. Thus, he stressed the need to evolve a balance between production for export market and domestic market.

Keshav (1983) made an attempt to analyse the balance of payments with a sectoral approach. The study highlighted

the nature and magnitude of fluctuations in India's balance of payments caused by the trade in agricultural products and imports. Besides this, a detailed analysis of trends in export and import of agricultural commodities was done.

Anonymous (1985) studied the pattern of India's trade both commoditywise and destinationwise and reported that over the past thirty years the pattern had remained more or less the same. To substantiate this argument, the share of different countries in India's imports and exports were analysed, which showed that 45 per cent of India's exports were concentrated among five countries while 60-64 per cent of imports came from eleven countries.

It was concluded that, stagnant concentration of India's trade and not so encouraging trends in its exports of traditional items called for an imperative need to diversify both the origin and destination pattern along with diversifying its production for exports and making export products competitive in terms of both price and quality.

METHODOLOGY

III. METHODOLOGY

In this chapter, a brief description of the procedure for selection of commodities for the study, source of data and method of analysis are presented.

Selection of commodities

Agriculture, being a broad sector, includes a host of sub-sectors, namely, crop production, horticulture, livestock etc. Necessarily, products from these sectors enter India's foreign trade. For the sake of clarity, here are given the definitions of agricultural imports and agricultural exports.

Agricultural imports are defined to include the following items:

i. Cereals and cereal preparations
ii. Vegetables and fruits
iii. Cocoa and spices
iv. Dairy products, eggs and honey
v. Fish and fish preparations
vi. Raw cotton
vii. Raw jute
viii. Raw wool

ix. Oil seeds including oil nuts and kernels

x. Fixed vegetable oils - (non-essential oils)

xi. Essential oils

xii. Fertilizers crude and manufactured

xiii. a) Agricultural machinery and implements

b) Tractors (other than steam)

Agricultural exports comprise the following items:

i. Tea

ii. Coffee

iii. Spices

iv. Sugar (excluding molasses)

v. Vegetables and fruits (including cashew nut)

vi. Fish and fish preparations

vii. Raw cotton

viii. Raw wool

ix. Oil cakes

x. Fixed vegetable oils (vegetable oils non-essential)

xi. Essential oils

xii. Tobacco - unmanufactured

Whenever the terms, agricultural imports and or agricultural exports are mentioned, in the text, it connotes the sum of items mentioned above in the respective category.

In the context of limited time and other resources, study of all items in both the categories is a stupendous task. Hence, it was decided to restrict the study to selected agricultural commodities, selection being based on the relative share of an item in agricultural imports or agricultural exports, in terms of value, over the years.

The above criterion resulted in the selection of following items:*

Agricultural imports	Agricultural exports
i) Cereals and cereal preparations	i) Tea
ii) Dairy products	ii) Coffee
ii) Vegetables and fruits	iii) Spices
iv) Raw cotton	iv) Vegetables and fruits
v) Raw jute	v) Fish and fish preparations
vi) Fixed vegetable oils	vi) Sugar excluding molasses
vii) Fertilizer crude and manufactured	vii) Tobacco - unmanufactured
iii) a. Agricultural machinery and implements	viii) Raw cotton
b. Tractors other than steam	ix) Oil cakes
	x) Fixed vegetable oils

*Different items within each individual group for the years 1972 and 1982 are given in Appendix IV.

Source of data

The data for the present study were obtained from two sources. They were:

i) Monthly statistics of Foreign Trade of India, Volume I and Volume II, published by the Director General of Commercial Intelligence and Statistics, Calcutta - provides data on India's imports and exports at a disaggregative level. Even though these publications are published since 1957, the author had access only to the issues published since 1968. Therefore, an alternative source of data was resorted to obtain the data for the previous years i.e. from 1950-51 onwards.

ii) Basic statistics relating to the Indian economy published by the Central Statistical Organization, which gives data on foreign trade of India from 1950-51 onwards. These documented data on foreign trade were in turn obtained from the same source, i.e., Office of the Director General of Commercial Intelligence and Statistics, Ministry of Commerce, Calcutta.

After cross examination, it was found that the data from the two sources were in confirmity with each other. Thus, from these two sources, a homogeneous time series

data for the period stretching from 1950-51 to 1981-82 was obtained.

Period of study and classification

The study was confined to the period 1950-51 to 1981-82 covering thirtytwo years for which data were available. The study period was divided into two sub-periods.

i. The period between 1950-51 to 1965-66 - Period I
ii. The period between 1967-68 to 1981-82 - Period II

The basis for division was devaluation of Indian Rupee on the 6th of June 1966, due to this reason comparison of value of imports or exports becomes erroneous. Therefore, two growth functions were exclusively fitted for each commodity studied.

The direction of trade of individual item was studied for the period 1968-69 to 1981-82. The period could not be extended back due to paucity of data in the required form.

Value of imports or exports - as dependent variable for measuring growth:

Measurement of growth of imports or exports would be more appropriate and meaningful in terms of quantity.

But, for the following inconsistencies, it was decided to go for growth function in value terms.

i) Many commodities selected for the study were a combination of heterogenous items. Thus, aggregation of quantities of different items of the commodity groups becomes erroneous.

ii) Even if an entire group comprises of a single commodity, verticle specialization over the years makes comparison of quantity meaningless or erroneous. Because the form in which a commodity is exported varies from year to year. A particular commodity is exported in a particular form in one year. But technological breakthrough invades and results in verticle specialization and the item may be processed further which otherwise would have been exported in the form as it was done in the previous year. These two forms cannot be considered as a single item and compared over the years.

Considering the above discrepencies, it was decided to use import/export value as the dependent variable for fitting growth function, despite the fact that the values contain price effect in addition to quantum effect. In the absence of appropriate price deflaters current prices were considered. This, however, is a drawback of the present analysis.

Methods of analysis

To assess the growth of selected agricultural commodities which figure in India's foreign trade, separate growth rates were computed for value of imports or exports for different items for the two periods indicated above. The type of growth function fitted was compound growth function. The procedure of computation is detailed below:

Compound growth rates

Suppose we have a variable increasing at approximately a constant rate of 100 r per cent per unit of time 't', assuming that the effect of disturbances is proportional to the trend value of Y_t, we can write:

$$Y_t = Y_o B^t V_t \qquad \ldots.(1)$$

Where,

Y = Value of imports or exports of a particular item,

Y_o = Y in the base year (intercept)

t = Time (in years)

V_t = Error term

B = 1 + r

Where r is the constant rate of growth to be estimated.

Taking natural logarithm on both sides in (1) we get, $\log Y_t = \log Y_o + (\log B)\, t + \log V_t$ ..... (2)

Let $\log Y_t = Q_t$

$t = X_t$

$\log Y_o = a$

$\log B = b$

$\log V_t = V_t$

Then equation (2) may be written as,

$$Q_t = a + b X_t + V_t \qquad \text{..... (3)}$$

We obtained the values of Y_o and B using the above definition -

Value of 'r' is obtained as follows:

$\log B = b$

B = anti log (natural) b

$B = 1 + r$

and $r = B - 1$

To obtain percentage of annual compound rate of growth the value of 'r' is multiplied by 100. Using the equation (3) compound growth rates were computed for the time series data on value of different import and export items.

Simple tabular analysis was employed to study the other objectives.

Limitations of the study

1. The study does not involve all the items that come under agriculture sector. Commodities which became important items of external trade in the last few years of the study have not been included. This has, necessarily, brought about compositional changes.

2. Since the value of the various items of external trade at current prices is considered, it subsumes inflation both global and internal.

3. Choice of the growth function is questionable since in all cases this may not provide the best fit and also the assumption of constant annual growth is not sound.

RESULTS

IV. RESULTS

Results of the study are presented in two sections. Section I includes agricultural imports while Section II depicts agricultural exports. In both the sections, first, the results of the growth analysis and direction of trade in individual items are presented, followed by a note on growth composition and direction of agricultural imports and agricultural exports respectively.

Section I: Agricultural imports

i) Cereals and cereal preparations:

This item constitutes in value terms a sizeable portion in India's agricultural imports. The relative share of cereal and cereal preparation in total imports, during Period-I (1950-51 to 1965-66) ranged between 5.94 per cent (in 1956-57) and 65.28 per cent (in 1965-66). The range was about the same during Period-II (1967-68 to 1981-82). This alone speaks of the importance of this item.

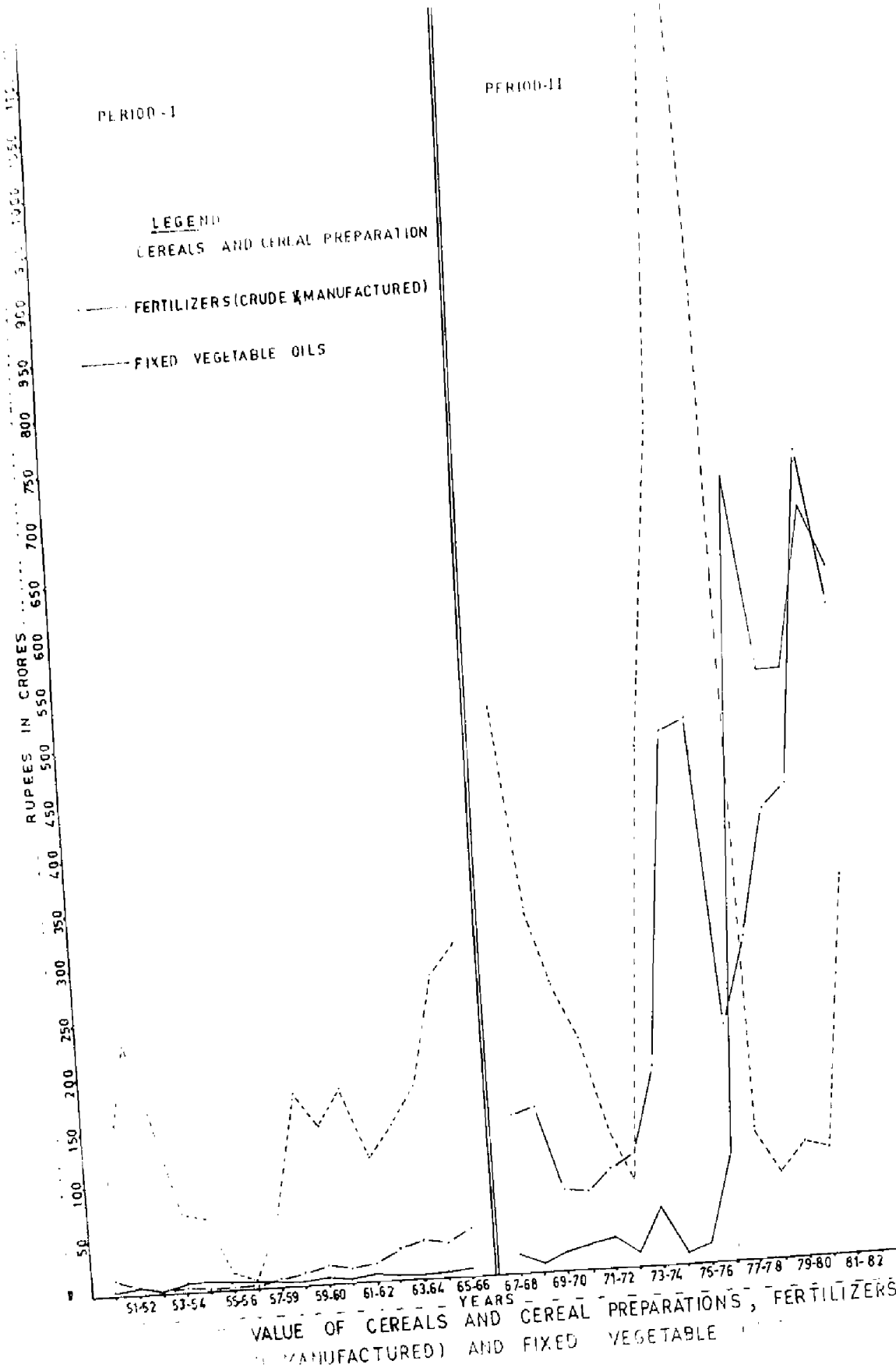
Plan average import values of selected agricultural commodities along with per cent increases over the respective previous Plans are presented in Table 1. It is clear

Table 1. Plan average import values of agricultural commodities.

Value: Rs.in lakhs

Plan periods/ Commodities	First	Second	Third	Annual plans	Fourth	Fifth	1979-80 to 1981-82
1. Cereals and cereal preparations	10909.6 -	11618.2 (6.49)	20659.4 (77.81)	50193.33 -	23182.8 (-53.81)	63890.8 (175.59)	18440.00 (-71.13)
2. Dairy products	825.4 -	928.8 (12.52)	906.0 (-2.45)	1727.00 -	1670.4 (-3.27)	3971.6 (137.76)	12007.66 (202.33)
3. Vegetables and fruits	1599.4 -	1904.4 (19.07)	2005.0 (5.28)	3861.0 -	4529.2 (17.30)	5768.2 (27.36)	7085.33 (22.83)
4. Raw cotton	7684.2 -	4868.8 (-36.63)	5456.4 (12.06)	7655.33 -	8758.6 (14.41)	8208.0 (-6.28)	397.0 (-95.16)
5. Raw jute	2615.8 -	581.8 (-77.75)	462 (-20.59)	1054.66 -	291.408 (-72.36)	308.24 (5.77)	163.6 (-46.9)
6. Fixed vegetable oils	578.4 -	424.8 (-26.55)	544.20 (28.10)	1243.33 -	2818.4 (126.68)	27542.4 (877.22)	61508.33 (123.33)
7. Fertilizers crude and manufactured	335.4 -	1071.4 (219.44)	3210.4 (199.6)	13453.66 -	10654.8 (-20.8)	38234.6 (258.84)	58485.66 (52.96)
8a. Agril.machinery and implements	356.6 -	79.4 (-77.73)	483.8 (509.31)	1339 -	1177.4 (-12.06)	566.2 (-51.9)	397.66 (-29.79)
b. Tractors other than steam	376.0 -	480.8 (27.87)	545.2 (13.39)	727.66 -	1294.8 (77.94)	609.0 (-52.96)	307.66 (-49.48)
Agril. imports	26537.0 -	23893.4 (-9.96)	36235.4 (51.65)	83111.33 -	57195.41 (-31.18)	154520.04 (170.16)	166404.00 (7.69)
	(- - - Period-I - - - -)			(- - - - - - - Period-II - - - - - - - -)			

Note: Figures in parentheses indicate percentage changes over the previous [illegible].



VALUE OF CEREALS AND CEREAL PREPARATIONS, FERTILIZERS (MANUFACTURED) AND FIXED VEGETABLE

from this table that the import value of cereal and cereal preparations was on an increasing trend, during the first three Five Year Plans (which happens to be the Period-I). In the First Plan, the import value averaged Rs.109.09 crores which increased marginally in the Second Plan. It further increased to Rs.206.59 crores in the Third Plan, an increase of 77.81 per cent over the Second Plan average.

Period-I (1950-51 to 1965-66) could easily be divided into two (see Fig.1) between 1951-52 to 1956-57, period during which cereal imports were on a declining trend and reached a minimum of Rs.8.16 crores in 1956-57 and the second, from 1957-58 till 1965-66 in which import value was increasing and highly fluctuating (see Appendix 1).

On the whole, the import value of cereal and cereal preparations grew at a compound rate of 6.16 per cent per annum which was significant at 0.1 probability level (Table 2).

The import value averaged Rs.501.93 crores during the annual Plans and fell by 53.81 per cent in the Fourth Plan. But there was a phenomenal increase in cereal imports in the Fifth Plan, in which import value was Rs.638.9 crores. In the remaining three years, average

Table 2. Exponential growth rates of selected agricultural commodities - imports

Commodities	Period-I (1950-51 to '65-66)		Period-II (1967-68 to 1981-82)	
	In (1+r)	% C.G.R.	In (1+r)	% C.G.R.
1. Cereal and cereal preparations	0.0598 (0.05)	6.16 NS	-0.0448 (0.055)	-4.38 NS
2. Dairy products	0.0216 (0.017)	2.18 NS	0.1779 (0.017)	19.47 **
3. Vegetables and fruits	0.0359 (0.009)	3.65 **	0.0437 (0.009)	4.46 **
4. Raw cotton	-0.0383 (0.019)	-3.75 NS	-0.3685 0.135	-30.82 *
5. Raw jute	-0.0233 (0.082)	-2.30 NS	0.0206 (0.183)	2.08 NS
6. Fixed vegetable oils	0.0052 (0.016)	0.52 NS	0.332 (0.054)	39.37 **
7. Fertilizers crude and manufactured	0.1736 (0.036)	18.96 **	0.1451 (0.027)	15.61 **
8a) Agril.machinery and implements	0.0002 (0.061)	0.02 NS	-0.1015 (0.032)	-9.65**
b) Tractors other than steam	0.0243 (0.014)	2.46 NS	-0.1632 (0.046)	-15.06 **
Agricultural imports	0.0319 (0.02)	3.24 NS	0.0927 (0.022)	9.71 **

Note: Figures in parantheses indicate Standard Errors
** Significant at 1 per cent probability level
* Significant at 5 per cent probability level
NS: Non-significant

value of imports fell by 71.13 per cent over the Fifth Plan average (Table 1).

Similar to the First period, in the Second period too the import value declined in the initial years till 1972-73, from Rs.518.2 crores in 1967-68 to Rs.80.79 crores in 1972-73. But in the next few years import value rose unchecked and the maximum was Rs.1342.79 crores in 1975-76. Then onwards the import value followed an irregular path, it was Rs.347.16 crores in 1981-82. These fluctuations are depicted in Figure 1.

Period-II recorded a negative compound growth rate in the import value of cereals and cereal preparations (-4.38 per cent per annum) which was non-significant (Table 2).

Direction:

A major portion of cereal and cereal preparation imports into India originated from the United States of America. The relative share of imports from the United States of America in the total cereal and cereal preparation imports into India was 63.85 per cent in 1968-69, came down to 14.43 per cent in 1972-73 and again shotupto 99

Table 3. Import of cereals and cereal preparations - Direction

Value Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1977-78	1979-80	1981-82
Australia	587.61 (1.85)	397.3 (1.95)	1634.4 (27.76)	3657.0 (5.14)	-	-	-
Canada	1459.89 (4.60)	888.1 (4.37)	-	-	-	-	-
France	4782.81 (15.08)	4212.7 (20.73)	2331.2 (39.60)	3877.6 (5.45)	4.59 (0.046)	-	10.59 (0.033)
Nepal	251.35 (0.79)	487.18 (2.39)	396.25 (6.73)	1219.35 (1.71)	542.84 (5.44)	77.48 (0.91)	1484.51 (4.72)
Thailand	2692.83 (8.49)	836.69 (4.11)	398.7 (6.77)	-	-	-	-
United States	20238.26 (63.85)	12137.99 (59.73)	850.4 (14.43)	40746.77 (57.36)	7154.82 (71.72)	8425.11 (99.06)	21844.38 (69.47)
Total imports	31695.77 100.00	20318.64 100.00	5886.56 100.00	71035.74 100.00	9975.63 100.00	8504.9 100.00	31444.29 100.00

Note: Figures in parantheses indicate percentage share of each country in total imports of cereals and cereal preparations into India.

per cent in 1979-80. Similarly, the value of cereal imports from U.S.A. too varied.

Canada was the other important source for India's imports of cereal and cereal preparations, whose share ranged between 15 per cent in 1968-69 and 0.03 per cent in 1981-82. Value of imports too declined over the years.

Other countries from which India imported cereal and cereal preparations were Australia, Burma, Nepal and Thailand.

II. Dairy products

The average value of dairy products was ₹.8.25 crores in the First Plan which rose to ₹.9.28 crores in the Second Plan. But there was a marginal decline of 2.45 per cent in the dairy product imports in the Third Plan (Table 1). The maximum import of dairy products in Period-I was during 1956-57 and 1957-58 in which it was ₹.13.14 crores and ₹.13.13 crores respectively.

The annual fluctuations in the value of dairy product imports can be read clearly from Figure 2. Import value dropped initially and then started increasing. But in the second half of Period-II it followed a zig-zag pattern.

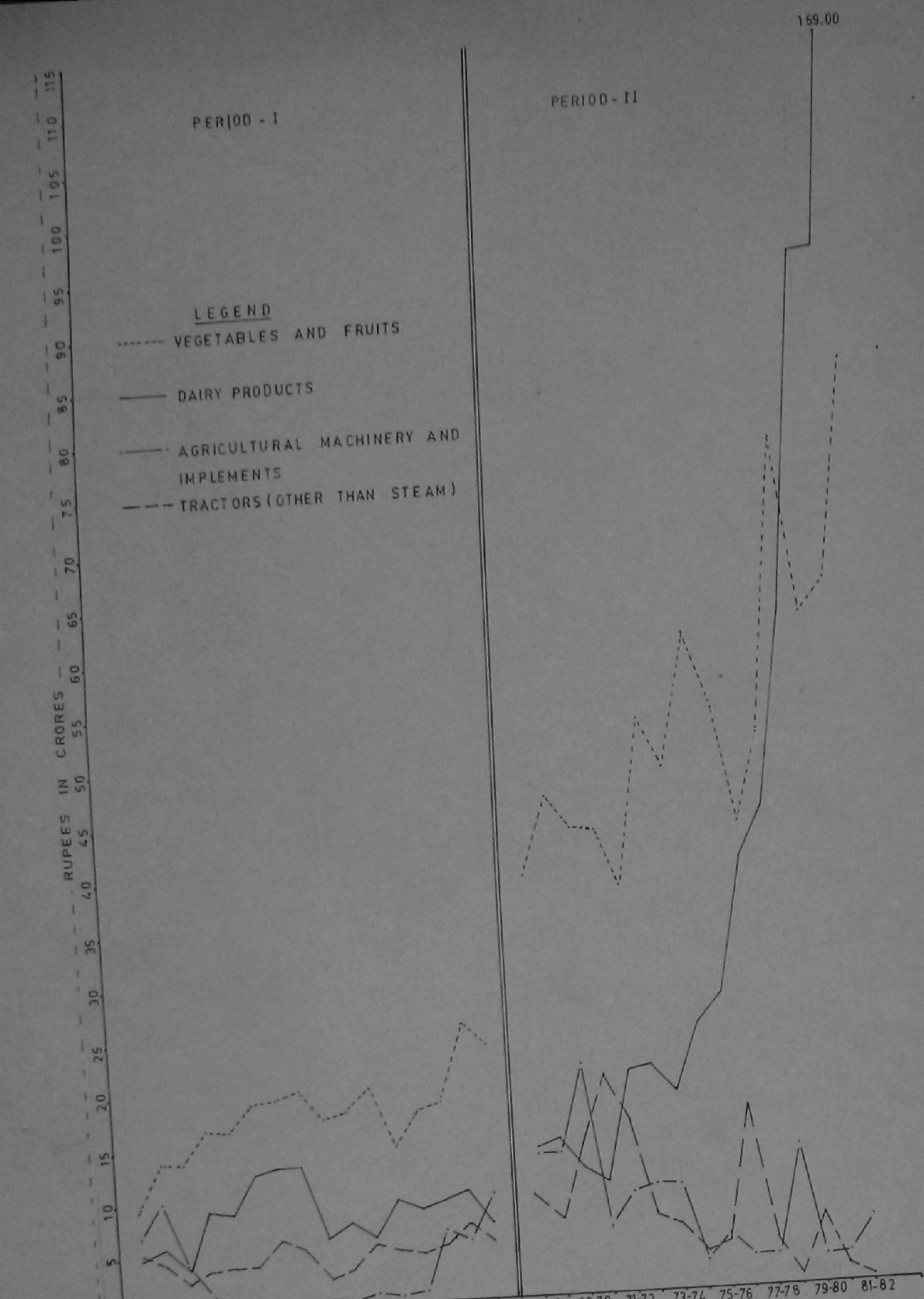


FIG.2. IMPORT VALUE OF VEGETABLES AND FRUITS, DAIRY PRODUCTS, AGRICULTURAL MACHINERY AND IMPLEMENTS AND TRACTORS (OTHER THAN STEAM)

The growth analysis showed that the dairy product imports increased at an annual compound rate of 2.18 per cent which was non-significant (Table 2) indicating high degree of inter year variations.

The import value of dairy products averaged ₹.17.27 crores during the three Annual Plans, but fell marginally in the Fourth Plan. There was phenomenal increase in the average import value of dairy products in the Fifth Plan and the period between 1979-80 to 1981-82 in which it was ₹.39.71 crores and ₹.70.86 crores, an increase of 137.76 per cent and 202.23 per cent over the Fourth Plan average and the Fifth Plan average respectively (Table 1).

Over the years, the dairy product import value was on an increasing trend. In 1967-68 it was ₹.14.23 crores which increased to ₹.169.00 crores by 1981-82. (Appendix I). This is clearly shown in the Figure 2.

The import value of dairy products increased at an annual compound rate of 19.47 per cent which was significant at 1 per cent level of probability.

Direction:

The United States was the major supplier of dairy

Table 4. Import of Dairy Products - Direction

Value R.Lakhs

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1[illegible]-82
Australia	54.97 (3.68)	62.07 (5.84)	3.28 (0.15)	5.37 (0.21)	5.42 (0.13)	5.39 (0.08)	2.53 (0.02)	[illegible]
Belgium	0.40 (0.02)	1.30 (0.12)	225.78 (10.58)	1333.05 (53.56)	547.55 (13.95)	1546.15 (24.84)	2104.84 (21.93)	[illegible]
Canada	51.74 (3.46)	29.16 (2.74)	446.28 (20.92)	45.25 (1.81)	269.82 (6.87)	13.07 (0.21)	16.80 (0.17)	-
Denmark	127.88 (8.56)	32.38 (3.05)	2.18 (0.10)	48.95 (1.96)	8.59 (0.21)	8.68 (0.13)	14.69 (0.15)	[illegible]
France	29.24 (1.95)	42.72 (4.02)	12.17 (0.57)	54.21 (2.17)	151.17 (3.85)	652.73 (10.50)	1769.86 (18.44)	2 [illegible]
F.R.G.	17.51 (1.17)	87.49 (8.24)	60.54 (2.83)	27.49 (1.1)	655.83 (16.71)	421.84 (6.77)	2237.23 (23.31)	6 [illegible]
Nepal	119.56 (8.00)	101.82 (9.59)	-	163.97 (6.58)	130.65 (3.32)	89.51 (1.44)	83.91 (0.87)	[illegible]
Netherlands	183.97 (12.31)	171.05 (16.11)	170.95 (8.01)	255.43 (10.26)	573.31 (14.61)	568.13 (9.13)	1741.14 (18.14)	2 [illegible]
Newzealand	117.90 (7.89)	123.63 (11.65)	637.87 (29.9)	3.94 (0.15)	0.62 (0.01)	8.05 (0.13)	5.91 (0.06)	[illegible]
U.S.A.	634.66 (42.46)	366.69 (34.55)	392.25 (18.39)	8.06 (0.32)	1222.79 (31.16)	1924.33 (30.92)	140.36 (1.46)	1[illegible].06 ([illegible])
Total dairy product imports	1493.47	1061.39	2132.68	2488.45	3924.06	6222.19	9597.54	16[illegible].95

Note: Figures in parantheses indicate per cent share of each country in total annual imports of dairy products into India.

products to India. In 1968-69 in which dairy products imports from this country amounted to ₹.6.34 crores (accounting for 42.46 per cent of total dairy product imports in that year) and increased to ₹.16.29 crores in 1981-82 (but the per cent share in total dairy products imports declined). Similarly imports from Newzealand in 1968-69 was of high order which declined over the years.

On the other hand, the imports of dairy products from European Economic Community had risen considerably which is indicated by the tremendous increase in the value of dairy product imports from Belgium, Denmark, France, West Germany and Netherlands (Table 4). The share of these countries in the total dairy product imports in 1968-69 was 24.01 per cent.

iii. Vegetables and fruits

The average import value of vegetables and fruits was ₹.15.99 crores in the First Plan which was on an increasing trend till the end of the Third Plan. The percentage increase was maximum in the Second Plan (19.07) over the First Plan average. The percentage increase in the Third Plan over the Second Plan was marginal (Table 1).

Vegetable and fruit imports in value terms increased throughout during the period 1950-51 to 1965-66. In 1950-51,

India imported vegetables and fruits worth Rs.9.51 crores, the same had risen to Rs.22.91 crores by 1965-66 (Appendix 1) registering an annual compound growth rate of 3.65 per cent which was significant at 1 per cent level.

Period-II also recorded a continuous increase in the average import value of vegetables and fruits. It was Rs.38.61 crores in the Annual Plans, and increased to Rs.70.86 crores in the period between 1979-80 to 1981-82. The percentage increases over the respective previous Plans hovered around 25 (Table 1). The import value thus registered a compound growth rate of 4.46 per cent per annum, which was significant at 1 per cent probability level.

Direction:

Tanzania, over the years, has continued to be the major supplier of vegetables and fruits to India, its share in the total value of imports of this group being 28.15 per cent in 1968-69, followed by Afghanisthan with Rs.6.36 crores worth of supplies accounting for 13.71 per cent of total import value of vegetables and fruits. This was followed by Iraq, Iran and Kenya. It may however be noted that other East African countries together accounted for the bulk of supplies in 1968-69 which declined thereafter.

Table 5. Import of Vegetables and Fruits - Direction

Value: Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
fghanisthan	636.29 (13.71)	910.97 (21.09)	1547.46 (29.03)	1682.34 (27.6)	1562.83 (35.95)	2331.58 (29.86)	777.54 (11.90)	330.12 (3.87)
ran	182.05 (3.92)	97.80 (2.26)	104.89 (1.96)	222.43 (3.65)	188.95 (4.34)	402.56 (5.15)	293.65 (4.49)	118.71 (1.4)
Iraq	312.52 (6.73)	309.01 (7.15)	418.20 (7.84)	432.92 (7.10)	357.67 (8.23)	802.03 (10.27)	439.34 (6.73)	303.98 (3.56)
Kenya	90.85 (1.95)	399.79 (9.25)	12.23 (0.23)	319.69 (5.24)	160.78 (3.70)	90.11 (1.15)	887.52 (13.58)	411.84 (4.86)
Nepal	24.83 (0.53)	16.7 (0.38)	15.10 (0.28)	10.05 (0.16)	12.56 (0.28)	59.58 (0.76)	337.13 (5.16)	19.81 (0.31)
Other East African countries	1722.68 (37.13)	1078.67 (24.97)	874.66 (16.41)	1738.20 (28.52)	356.92 (8.21)	-	-	-
Tanzania	1306.28 (28.15)	1435.44 (33.23)	2285.66 (42.88)	1589.05 (26.07)	1315.34 (30.26)	905.77 (11.60)	168.04 (2.57)	131.55 (1.54)
Total imports of Vegetables and Fruits	4639.53	4319.67	5329.97	6093.96	4346.26	7807.66	6531.81	8511.30

Note: Figures in parantheses indicate per cent share of each country in total annual Vegetables and Fruits imports into India.

IV. Raw cotton

Raw cotton was an important item of import during Period-I eventhough it declined in the recent years.

Raw cotton imports in the First Plan averaged ₹.76.84 crores and fell sharply by 36.63 per cent in the Second Plan. But it again rose in the Third Plan to ₹.54.56 crores.

The value of imports showed a strong declining trend till 1958-59. But then onwards, eventhough it had a mild increasing trend, there were year to year fluctuations, which is clearly manifested in Figure 1.

On the whole, the raw cotton imports during the Period-I recorded a negative compound growth rate which was (-) 3.75 per cent statistically significant at 10 per cent probability level.

India's imports of raw cotton averaged ₹.76.55 crores during the Annual Plans which increased by 14.41 per cent in the Fifth Plan period. Then onwards the import were on a strong declining trend. The average imports value was ₹.3.97 crores in the period 1979-80 to 1981-82 which was a decline of 95.16 per cent over the Fifth Plan average (Table 1).

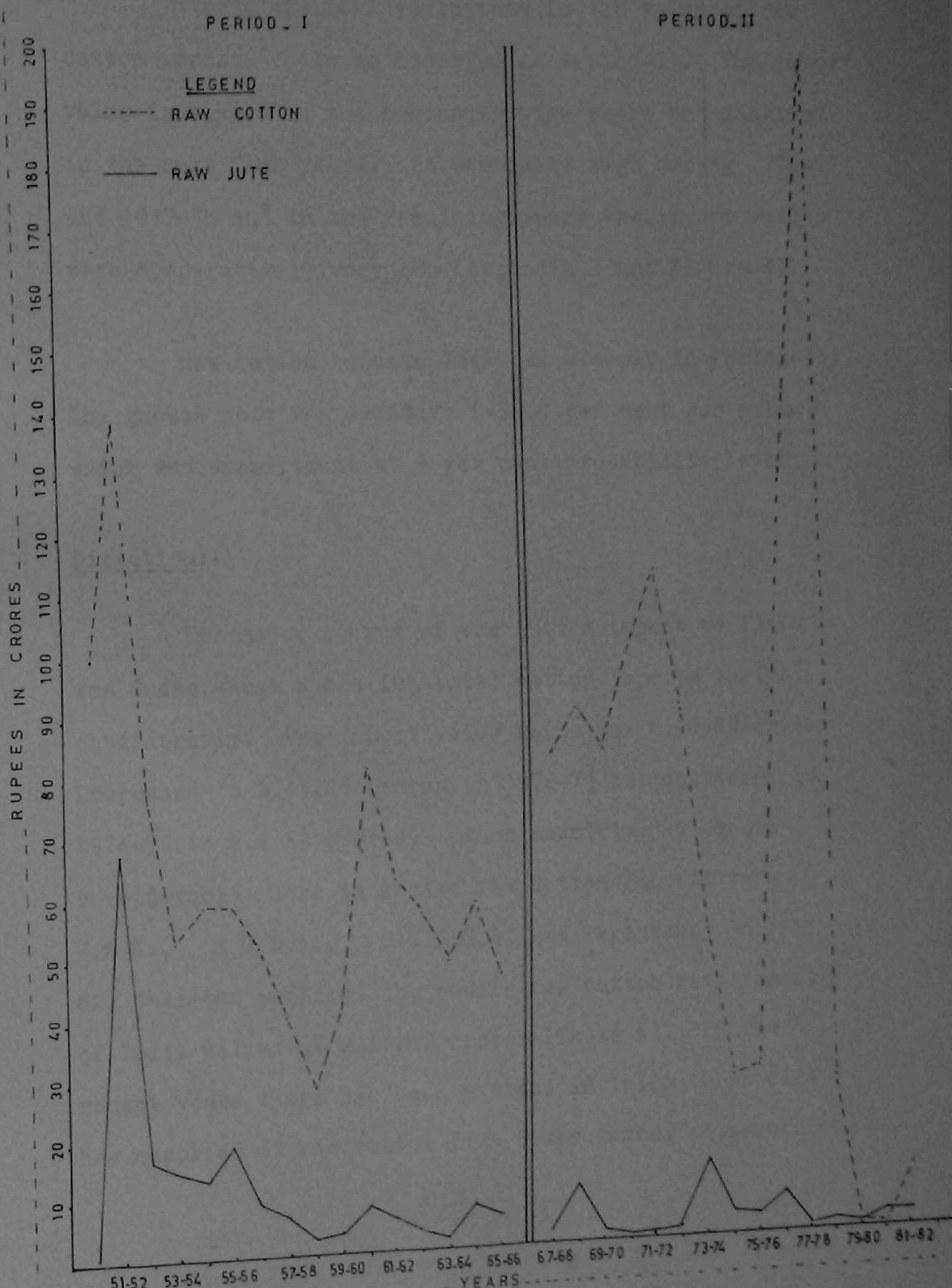


FIG 3 IMPORT VALUE OF RAW COTTON AND RAW JUTE

Strong cyclical variations in the value of raw cotton imports could be observed in Period-II. The import value increased in the beginning five years but declined in the next four years. It was quite high during 1976-77 and 1977-78 and in the remaining years the import values were comparatively very low (Appendix I and Figure 3).

Raw cotton imports declined steeply in Period-II. The growth rate was negative (-30.8 per cent per annum) which was significant at 5 per cent probability level.

Direction:

The major source of raw cotton import to India was Sudan whose share in total cotton imports varied considerably. The import value which was Rs.20.89 crores increased to Rs.44.84 crores in 1972-73 but decreased in 1974-75 to Rs.4.69 crores. Other countries which had considerable share in Indian raw cotton imports were U.A.R., U.S.A., U.S.S.R. and Pakistan. In 1981-82, Pakistan supplied the entire raw cotton requirement of India valued at Rs.11.82 crores (Table 6). In the recent years there has been a trend in India to procure her supplies of raw cotton from fewer number of countries.

Table 6. Import of Raw Cotton - Direction

Value: Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Kenya	310.72 (3.44)	276.36 (2.79)	355.00 (3.90)	-	-	-	-	-
Moracco	109.92 (1.21)	424.03 (4.29)	262.17 (2.88)					
Pakisthan	-	-	-	-	0.98	-	-	1181.99 (99.92)
Sudan	2089.03 (23.16)	1979.69 (20.0)	4484.06 (49.33)	469.23 (17.59)	2024.61 (15.63)	1514.14 (52.07)	1.68 (100.00)	-
Tanzania	28.14 (0.31)	19.07 (0.19)	42.03 (0.46)	-	1392.07 (10.75)	-	-	-
Turkey	23.83 (0.26)	1.76 (0.01)	-	-	841.56 (6.49)	1.67 (0.05)	-	-
U.A.R.	3014.13 (33.42)	3172.84 (32.10)	2554.06 (28.1)	1941.50 (72.79)	-	-	-	-
U.S.A.	2685.27 (29.77)	2876.20 (29.1)	127.35 (1.40)	-	5566.1 (42.94)	59.67 (2.05)	-	
U.S.S.R.	-	-	740.69 (8.15)	221.82 (8.32)	651.06 (5.03)	1.94 (0.07)	-	
Total Raw Cotton imports	9018.03	9883.48	9088.31	2667.02	12948.71	2907.68	1.68 (100.00)	1183.1

Note: Figures in parantheses indicate share of each country in total annual raw cotton imports into India.

V. Raw jute

The values of raw jute imports in the initial years of Period-I were of a high order compared to the later years. The First Plan average was Rs.26.15 crores which successively declined in the next two Plan periods. It was Rs.4.62 crores in the Third Plan (Table 1). The annual import value too declined over the years. In 1951-52 the imports amounted to Rs.67.67 crores, which declined to Rs.5.60 crores in 1965-66. (See Figure 3 and Appendix I).

Period-I recorded a negative annual growth in the import value of raw jute (-2.3 per cent) which was however statistically not significant.

Period-II (1967-68 to 1981-82) was fraught with year to year variation in raw jute imports. The period could be divided based on the trend into three periods. The first two were between 1968-69 to 1971-72 and 1973-74 to 1977-78, which showed a declining trend. In the third period, 1977-78 to 1981-82 the imports were irregular (See Appendix I and Fig.3).

The growth analysis showed that the import value grew at a compound rate of 2.08 per cent per annum which however, was statistically not significant (Table 2).

Table 7. Import of Raw Jute - Direction

Value: Rs.Lakh per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	19[illegible]-82
Bangladesh	-	-	104.55 (92.48)	375.28 (100.00)	569.77 (84.24)	-	-	-
Malaysia	159.63 (17.14)	-	-	-	-	-	-	-
Nepal	29.71 (3.20)	14.45 (100.00)	8.50 (7.52)	-	3.65 (0.54)	153.86 (100.00)	201.7 (100.00)	[illegible]
Singapore	741.82 (79.66)	-	-	-	-	-	-	-
Thailand	-	-	-	-	102.90 (15.21)	-	-	-
Total Raw-Jute imports	931.17	14.45	113.05	375.28	676.33	153.86	201.7	243.03

Note: Figures in parantheses indicate share of each country in total annual raw jute imports into India

The average import value which was ₹.10.54 crores during the three Annual Plans fell sharply by 72.36 per cent in the Fourth Plan. Average imports were slightly higher in the Fifth Plan but again fell sharply to ₹.1.63 crores in the last three years of the study (Table 1).

Direction:

In the year 1968-69 raw jute imports into India originated mainly from Singapore, the relative share of which was 79.66 per cent. In 1970-71, Nepal was the sole supplier. During the period 1972-73 to 1976-77 Bangladesh was the major source of raw jute accounting for 92.48 per cent, 100 per cent and 84.24 per cent respectively. Since 1978-79, Nepal re-entered the Indian market and supplied the entire raw jute requirement of India (Table 7).

VI. Fixed vegetables (veg. oil non-essential)

This item was not an important item of import during the period 1950-51 to 1965-66, relative sharewise. But by the end of Seventies it had assumed importance and its relative share was around 30 per cent of total agricultural imports.

The import value of fixed vegetable oils averaged

Rs.5.78 crores in the First Plan and dropped to Rs.4.25 crores in the Second Plan but rose to Rs.5.44 corres in the Third Plan (Table 1).

From 1950-51 to 1955-56, fixed vegetable oil imports were on an increasing trend (Rs.3.34 crores to Rs.6.56 crores) but fell to Rs.3.33 crores, in rest of the years it fluctuated (*Fig.1*).

In Period-I, the growth in fixed vegetable oil imports was negligible. The annual rate of compound growth was 0.52 per cent which was not statistically significant.

The import value of fixed vegetable oil was on an increasing trend throughout Period-II. During the Annual Plans, the average import value was Rs.12.43 crores, and increased to Rs.28.18 crores in the Fourth Plan. There was a phenomenal increase in the import of this item in the Fifth Plan.valued at Rs.275.42 crores accounting for an increase of 877.2 per cent over the Fourth Plan imports. In the rest of the years too, the import of this item increased, to Rs.615.08 crores (Table 1).

There were year to year fluctuation in the vegetable oil imports till 1974-75 but then onwards it rose spectacularly (Appendix I).

The import value of this item grew at a compound rate of 39.37 per cent per annum which was statistically significant at 1 per cent level of probability (Table 2).

Direction:

The fixed vegetable oil imports into India came mainly from Brazil, Canada, Malaysia and U.S.A. The value of imports from U.S.A. increased from Rs.9.49 crores in 1968-69 to Rs.204.23 crores in 1980-81, while the relative share of U.S.A. declined considerably over the years from 98.09 per cent in 1968-69 to about 12 per cent in 1981-82 (Table 8).

Imports from Malaysia increased considerably from a mere Rs.14.79 lakhs in 1968-69 to Rs.206.46 crores in 1981-82 representing an increase in the share of that country in Indian imports of fixed vegetable oils from 1.52 per cent to 33.02 per cent. Brazil, however, has emerged as a major supplier of this commodity since 1976-77 and imports from this country to India accounted for nearly 38 per cent of the total value of imports of this oil.

Eventhough, the value of imports from Canada had gone up, its relative share was almost stagnant.

Table 8. Import of Fixed Vegetable oils (or non-essential) - Direction

Value: Rs.lakh per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	198[illegible]-82
Brazil	-	-	-	-	1332.84 (13.24)	4112.32 (7.65)	13453.90 (19.7)	235[illegible].21 (3[illegible])
Canada	-	-	-	-	916.57 (9.10)	5851.32 (10.89)	6504.21 (9.52)	60[illegible].25 (9.[illegible])
Indonesia	-	-	-	248.18 (19.69)	210.89 (2.09)	-	415.35 (0.60)	
Malaysia	14.79 (1.52)	11.38 (0.49)	31.18 (2.03)	224.45 (18.25)	1167.14 (11.60)	18347.47 (34.16)	21064.45 (30.84)	206[illegible].1[illegible] (3[illegible].2)
Singapore	-	-	-	2.03 (0.16)	1.98 (0.02)	1523.62 (2.83)	2312.55 (3.38)	25[illegible].1[illegible] ([illegible])
U.S.A.	949.55 (98.09)	2117.68 (91.77)	1186.58 (77.24)	723.39 (58.82)	4834.20 (48.04)	10055.43 (18.72)	20423.9 (29.9)	73[illegible].[illegible] ([illegible])
Total vegetable oils - Non-essential	967.98	2307.52	1536.09	1229.68	10061.18	53708.52	68289.77	625[illegible]

Note: Figures in parentheses indicate share of each country in total annual fixed vegetable oil import value into India

VII. Fertilizers - crude and manufactured

Fertilizer imports maintained a low profile in the Fifties decade which is indicated by the low relative share. It may be noted that out of the total agricultural imports of Rs.265.37 crores fertilizer imports accounted for barely Rs.3.35 crores representing 1.3 per cent of the value of agricultural imports. It may however be noted that in the recent years fertilizer imports in value terms has been the major agricultural commodity imported, next only to fixed vegetable oils.

The First Plan average value of fertilizer imports was Rs.3.35 crores per annum, and increased increased to Rs.10.71 crores and Rs.32.1 crores during the Second and Third Plan periods respectively (Table 1).

It is interesting to note that the value of fertilizer imports in 1950-51 was Rs.12.35 crores and it declined continuously till 1954-55 to Rs.1.79 crores. But then onwards it maintained an increasing trend till the last year of the Third Plan (see Appendix I).

In Period-I, the fertilizer imports increased at an annual compound rate of 18.37 per cent which was statistically significant at 1 per cent probability level (Table 2)

During the Annual Plans, the import value of fertilizers averaged Rs.134.53 crores which declined by 20.8 per cent in the Fourth Plan period, but rose spectacularly during the Fifth Plan and the remaining years, during which the values were Rs.382.34 crores and Rs.584.85 crores respectively. The percentage increase was maximum (258.84) in the Fifth Plan over the Fourth Plan average (Table 1). This is endorsed by an increasing trend over the years during Period-II (Figure 1). As a result, the import of fertilizers increased at a compound rate of 15.61 per cent annually, which was statistically significant at 1 per cent probability (Table 2).

Direction:

It is clear from Table 9 that India obtained major portion of her fertilizer imports from U.S.A. The imports from U.S.A. were worth Rs.91.32 crores (60.15 per cent) in 1968-69 which fell to Rs.18.34 crores in 1970-71. The imports increased over the remaining years and were Rs.195.61 crores and Rs.146.82 crores during 1980-81 and 1981-82 respectively. Eventhough the value of fertilizer imports from the U.S. had risen, the relative share had gone down.

Table 9. Import of Fertilizers (crude and manufactured) - Direction

Value: Rs.Lakhs/annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Canada	575.74 (3.79)	867.12 (11.80)	1316.14 (13.02)	1792.36 (3.68)	704.13 (3.25)	2234.06 (5.42)	6664.56 (9.11)	5240.43 (8.84)
G.D.R	574.89 (3.78)	228.02 (3.10)	350.84 (3.47)	893.67 (1.83)	896.57 (4.13)	704.73 (1.71)	1177.26 (1.60)	865.70 (1.46)
F.G.R.	868.23 (5.72)	495.77 (6.74)	811.71 (8.03)	4043.94 (8.31)	1568.23 (7.23)	3162.04 (7.67)	6110.62 (8.35)	7401.57 (12.49)
Italy	-	193.88 (2.63)	114.60 (1.13)	3019.11 (6.21)	988.34 (4.56)	1569.34 (3.81)	4179.50 (5.71)	3232.10 (5.45)
Japan	814.87 (5.36)	340.83 (4.63)	719.82 (7.12)	6259.56 (12.87)	981.57 (4.53)	965.26 (2.34)	153.61 (0.21)	4.45 -
Jordon	625.86 (4.12)	82.07 (1.11)	413.02 (4.26)	2395.47 (4.92)	448.10 (2.06)	1123.39 (2.72)	3227.40 (4.41)	3294.47 (5.56)
Morocco	32.62 (0.21)	307.7 (4.18)	126.37 (1.25)	1900.08 (3.90)	780.75 (3.60)	-	2322.42 (3.17)	2292.76 (3.87)
Netherlands	30.97 (0.20)	304.25 (4.14)	223.28 (2.20)	988.95 (2.03)	211.43 (0.97)	6137.33 (14.90)	6699.01 (9.15)	7417.37 (12.52)
Poland	249.79 (1.64)	456.63 (6.21)	125.60 (1.24)	3532.75 (7.26)	1925.01 (8.88)	1513.21 (3.67)	1181.4 (1.61)	-
Roumania	42.82 (0.28)	249.02 (3.38)	454.54 (4.49)	2570.26 (5.28)	1955.52 (9.02)	2727.38 (6.62)	3859.08 (5.27)	819.10 (1.38)
Senegal	19.61 (0.13)	45.24 (0.61)	-	-	58.18 (0.26)	349.21 (0.84)	607.47 (0.83)	579.31 (0.97)
U.S.A.	9132.66 (60.15)	1834.06 (24.96)	3025.29 (29.93)	8315.27 (17.10)	2840.93 (13.11)	9044.76 (21.96)	19561.89 (26.74)	14682.44 (24.79)
U.S.S.R.	851.48 (5.60)	422.01 (5.74)	540.55 (5.34)	4296.7 (8.83)	2092.32 (9.65)	2159.92 (5.24)	3241.73 (4.43)	2523.87 (4.26)
Total fertilizer imports	15182.00	7347.50	10106.66	48616.20	21664.00	41184.50	73135.50	59227.00

Note: Figures in parantheses indicate per cent share of each [illegible] fertilizer imports into India.

India has been obtaining her fertilizer supplies from a number of countries, the major ones being U.S.A., Netherland, F.R.G. and Canada together accounting for over 55% of total value of imports in the recent years.

The fertilizer imports from Japan were valued at Rs.8.14 crores (5.36 per cent) in 1968-69 and increased to Rs.62.59 crores (12.87 per cent) in 1974-75. But then onwards both the value of imports and the relative share declined considerably.

VIII. a. Agricultural machinery and implements

The average import value of these items during the First Plan was Rs.3.56 crores which dropped to Rs.79.4 lakhs in the Second Plan - a decline of 77.73 per cent, which however, increased to Rs.4.83 crores in the Third Plan (Table 1).

A perusal of annual import data (Appendix I) of agricultural machinery and implements, shows that it followed a declining path till 1959-60 but increased in the remaining years of Period-I.

The growth rate in the import value of this item was 0.02 per cent per annum which was not statistically significant.

In Period-II, the import value was on a strong declining trend, It was Rs.13.69 crores in 1967-68 declined to Rs.2.71 crores in 1979-80. Of course at times, spurts in import value were evident. This phenomena is further substantiated by the ever declining plan period averages. In the three Annual Plan years, average imports amounted to Rs.13.39 crores which dropped by 12.06 per cent in the next Plan period. The imports further declined during the Fifth Plan period and the period between 1979-80 to 1981-82 to Rs.6.09 crores and Rs.3.07 crores respectively (Table 1).

The compound rate of decline in Period-II (-15.06 per cent per annum) which was statistically significant at 1 per cent level of probability (Table 2).

b. Tractors other than steam

The average import value (Table 1) of this item during the First Plan was Rs,3.76 crores which increased till the Third Plan (Rs.5.45 crores) an increase of 13.37 per cent over the Second Plan average.

The annual import of this item fluctuated heavily in Period-I (Appendix I and Fig.2). On an average tractor imports registered a compound annual growth rate of 2.46

per cent in Period-I which was significant at 1 per cent level (Table 1) of probability.

The value of tractor imports averaged Rs.7.27 crores during the three Annual Plans which increased by 77.94 per cent in the Fourth Plan. But in the Fifth Plan and the remaining three years of the study the average declined considerably. The average value of imports during the last three years was Rs.3.07 crores - a decline of 49.53 per cent over the Fifth Plan (Table 1) (See Fig.2).

The growth analysis revealed that in Period-II, the value of tractor imports declined at a compound rate of -15.06 per cent per annum which was significant at 1 per cent probability level (Table 2).

Direction (both A and B)

The major countries from which tractors were imported to India were West Germany, Japan, Poland, Roumania, U.K., U.S.A. and U.S.S.R. (Table 10).

The value of imports from Czechoslovakia, Poland, Roumania and Yugoslavia had gone down over the years. Similarly, the imports from U.K., U.S.A. and U.S.S.R. the major sources of imports of the group too declined

Table 10: Import of agricultural machinery, implements [illegible]

Value Rs.Lakhs/annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Czechoslovakia	100.58 (7.42)	402.07 (14.43)	73.05 (4.27)	129.17 (19.98)	26.49 (1.31)	-	7.63 (1.57)	-
Denmark	15.92 (1.17)	51.79 (1.85)	27.22 (1.60)	62.54 (9.67)	13.52 (0.675)	13.48 (0.924)	41.28 (8.51)	4.41 (0.64)
G.D.R.P	21.53 (1.58)	29.39 (1.05)	45.33 (2.65)	8.00 (1.23)	3.34 (0.165)	27.34 (1.87)	16.64 (3.43)	38.04 (5.56)
F.R.G.	47.53 (3.50)	128.07 (4.59)	177.13 (10.37)	18.30 (2.83)	57.74 (2.86)	592.46 (40.62)	20.37 (4.20)	220.56 (32.27)
Japan	96.82 (7.14)	83.60 (3.00)	135.10 (7.90)	46.26 (7.15)	91.03 (4.51)	433.79 (29.74)	96.03 (19.81)	66.28 (9.69)
Netherlands	4.75 (0.35)	4.54 (0.163)	39.15 (2.29)	0.76 (0.11)	13.86 (0.68)	32.77 (2.24)	18.61 (3.84)	67.07 (9.81)
Poland	243.57 (17.98)	372.58 (13.37)	159.10 (9.31)	0.81 (0.12)	7.82 (0.38)	1.40 (0.10)	1.09 (0.22)	0.24 (0.03)
Roumania	99.57 (7.35)	396.56 (14.24)	124.91 (7.31)	0.33 (0.05)	2.51 (0.12)	4.15 (0.28)	-	9.46 (1.38)
Sweden	17.51 (1.31)	6.47 (0.23)	6.24 (0.36)	21.38 (3.30)	16.49 (0.81)	23.26 (1.59)	30.52 (6.29)	30.88 (4.51)
U.K.	90.71 (6.69)	562.92 (20.21)	576.94 (33.77)	62.98 (9.74)	92.12 (4.57)	71.43 (4.89)	40.24 (8.30)	75.15 (10.99)
U.S.A.	293.23 (17.66)	77.31 (2.77)	121.90 (7.13)	59.02 (9.13)	72.70 (3.6)	38.93 (2.66)	58.57 (12.08)	82.26 (12.03)
U.S.S.R.	128.36 (9.47)	284.50 (10.21)	62.87 (3.68)	62.31 (9.63)	1.70 (0.08)	4.94 (0.33)	88.67 (18.29)	25.38 (3.71)
Yugoslavia	81.44 (6.01)	185.39 (6.65)	20.91 (1.22)	132.95 (20.56)	1519.72 (75.39)	-	19.76 (4.07)	-
Total imports of agril. implements and tractors	1354.55	2784.67	1708.06	646.44	2015.67	1458.20	484.60	683.47

Note: Figures in parantheses indicate per cent share of each country in total annual import value of agricultural [illegible] into India.

considerably over the years. The Federal Republic of Germany has been the major supplier accounting for over 32 per cent of the value of tractor imports followed by U.S.A. (12 per cent), U.K. (11 per cent), Netherland and Japan with about 10 per cent each.

Agricultural imports

Growth

The average value of agricultural imports in the First Plan was ₹.265.37 crores (Table 1) which dropped in the Second Plan to ₹.238.98 crores - a decrease of 9.96 per cent. But the average value increased during the Third Plan (₹.362.35 crores).

The annual import value of agricultural items are plotted on a graph (Fig.4), which indicates that, it shot up considerably in 1951-52 but declined in the next five years (Appendix I). Then onwards the import value maintained an increasing trend till 1965-66 barring one or two fluctuations in the middle years.

The compound growth rate of agricultural imports in Period-I was 3.24 per cent per annum which was not statistically significant.

During the Annual Plans, agricultural imports averaged Rs.831.11 crores, declined by 31.18 per cent in the Fourth Plan period, but it increased phenomenally in the Fifth Plan to Rs.1545.20 crores - an increase of 170.16 per cent over the Fourth Plan average. There was a marginal increase in the average agricultural import value during the last three years of the study.

The annual fluctuations could be visualised from Figure 4 (see also Appendix 1). Period-II recorded a compound growth rate of 9.71 per cent per annum which was significant at 1 per cent level of probability (Table 2).

Composition of agricultural imports

Major items which constitute agricultural imports were cereal and cereal preparations, raw cotton, raw jute, fixed vegetable oils, fertilizers crude and manufactured vegetables and fruits, dairy products and agricultural machinery and implements and tractors (Table 11).

The relative share of cereals and cereal preparations in total agricultural imports was 38.56 per cent in 1950-51 which dropped to 11.13 per cent in 1955-56. Then onwards, the relative share kept on increasing until 1965-66 when it was 65.28 per cent. In 1967-68, the relative

Table 11. Composition of agricultural imports

(Annual percentage)

...ities	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1979-80	1980-81	1981-82
...and cereal ...ions	38.56	11.13	53.37	65.28	41.34	66.52	8.17	5.64	18.07
...oducts	1.97	7.85	1.83	1.52	2.05	1.35	7.35	5.39	8.80
...fish preparations	0.09	1.95	1.04	0.03	0.01	0.05	0.01	0.45	0.28
...and spices	2.18	1.40	0.58	0.15	0.18	0.10	1.05	1.09	1.03
Vegetables & fruits	3.69	12.20	5.99	4.80	8.33	2.69	4.79	3.67	4.43
Raw-cotton	39.17	36.75	24.05	9.75	19.18	1.39	0.01	0.001	0.61
Raw-Jute	0.02	12.38	2.21	1.18	0.02	0.16	0.03	0.11	0.12
Raw-Wool	2.18	0.91	0.40	0.90	3.11	1.28	2.46	2.85	2.28
Oilseeds, nuts etc.	0.89	5.12	3.42	1.53	1.23	0.38	0.19	0.66	0.23
Fixed vegt. oils	1.29	4.20	1.07	1.86	4.47	0.76	41.51	38.40	32.56
Veg. oils-essential	0.36	1.35	0.42	0.22	0.31	0.08	0.35	0.28	0.33
Fertilizers	4.80	1.43	3.56	9.46	14.26	24.69	33.30	41.12	30.84
Agril.machinery and implements	2.72	0.50	0.29	2.10	1.36	0.25	0.20	0.16	0.32
...other than steam	2.08	2.83	1.77	1.22	4.15	0.3	0.58	0.17	0.10
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total value of ...ril. imports	25724	15598	33980	47346	51521	201849	129376	177820	192016

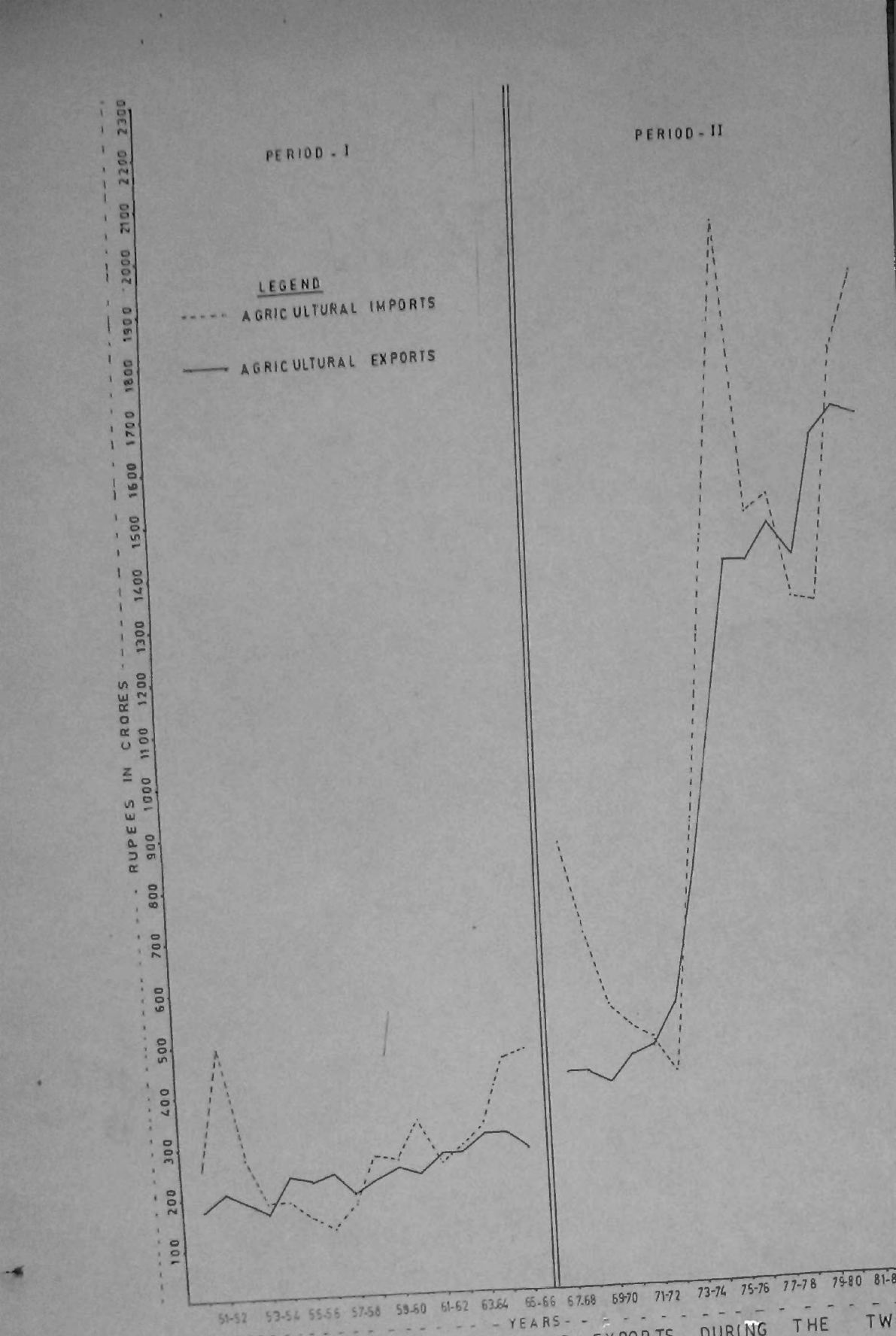


FIG. 4 AGRICULTURAL IMPORTS AND EXPORTS DURING THE TW
PERIODS

share was 59.89 per cent which further dropped to around 40 per cent in 1970-71. It again rose to 66.52 per cent in 1975-76. In rest of the years, the relative share of this item declined considerably.

The relative share of raw cotton was 39.17 per cent in 1950-51 which steadily declined over the years and in 1981-82 it was just 0.61 per cent. Raw jute imports which accounted for considerable share during the First Plan gradually declined over the years and the imports were almost negligible in the ending years.

The share of fixed vegetable oils, which accounted for just 1.29 per cent in 1950-51, remained around 3 per cent till the early Seventies. But in the remaining years, there was a phenomenal increase in the relative share of fixed vegetable oils, which was around 40 per cent.

The import value of fertilizers (crude and manufactured), the relative share of which was 4.8 per cent dropped in the subsequent years. But its relative share increased from 1960-61 onwards and in 1981-82 it was 30.84 per cent.

The share of vegetables and fruits in total value of agricultural imports was 3.69 per cent in 1950-51 which increased to 12.20 per cent in 1955-56 till 1975-76 the

relative share of this item in total agricultural imports was almost stagnant, hovering around 3.5 per cent.

Dairy product imports accounted for 1.97 per cent of total value of agricultural imports, which increased to 7.85 per cent in 1955-56. From then onwards till 1975-76 the relative share was of low order. In the concluding year of the study the relative share was around 7 per cent.

Compared to other items the share of agricultural machinery and implements and tractors were low. The shares of both were higher in the Sixties decade.

Other commodities which India imported in smaller amount were fish and fish preparations, cocoa and spices, raw wool, oil seeds and nuts and essential oils. The share of each item was negligible and the total relative share of all these items put together was around 5 per cent.

Direction:

The U.S. has been the major supplier of agricultural items to India. The value of agricultural imports from this country amounted to ₹.338.97 crores (48.60 per cent) in 1968-69 which increased to ₹.467.02 crores (24.32 per cent) in 1981-82. The value of agricultural

Table 12. Total agricultural imports : Direction

Value: Rs.lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Australia	1486.71 (2.13)	2161.54 (4.19)	893.46 (2.14)	7401.38 (5.17)	19706.42 (13.40)	2881.08 (2.19)	4048.52 (2.27)	11589.73 (6.03)
Belgium	37.97 (0.54)	144.32 (0.28)	362.26 (0.87)	5494.31 (3.84)	826.11 (0.56)	2738.2 (2.08)	2489.29 (1.39)	4002.05 (2.08)
Canada	5517.36 (7.92)	5380.1 (10.44)	4845.79 (11.63)	6656.57 (4.65)	3760.53 (2.55)	10873.94 (8.28)	14136.79 (7.95)	11470.52 (5.97)
France	282.10 (0.40)	365.95 (0.71)	376.44 (0.9)	2235.36 (1.56)	3356.31 (2.28)	4408.32 (3.35)	3432.56 (1.93)	4521.21 (2.35)
F.R.G.	965.77 (1.38)	722.47 (1.40)	1257.53 (3.01)	5039.73 (3.52)	2693.26 (1.83)	7909.39 (6.02)	8401.84 (4.72)	14004.47 (7.29)
U.K.	204.86 (0.29)	838.35 (1.62)	795.65 (1.91)	546.26 (0.38)	1330.79 (0.90)	1960.8 (1.49)	951.34 (0.53)	1615.27 (0.84)
U.S.A.	33897.73 (48.66)	19438.11 (37.72)	6060.01 (14.55)	49629.23 (34.73)	74711.28 (50.80)	28431.6 (21.66)	47514.3 (26.72)	46702.77 (24.32)
U.S.S.R.	995.52 (1.42)	825.22 (1.60)	1378.4 (3.30)	4580.88 (3.20)	2745.93 (1.86)	9085.93 (6.92)	3331.13 (1.87)	2549.25 (1.32)
Total agril. imports	69659.00	51521.00	41646.00	142890.00	147054.00	131263.00	177820.00	192016.00

Note: Figures in parantheses indicate per cent share of each country in total agricultural imports into India.

imports from Federal Republic of Germany, Belgium, France, U.K. (E.E.C.) and Canada increased over the years considerably, increasing their per cent share in total agricultural imports into India.

Similarly, value of agricultural imports from Australia and U.S.S.R. increased over the years.

Section II: Agricultural exports

i. Tea

Tea is an important item of export from India. In the First Plan, the average value of annual exports was ₹s.106.57 crores which increased by 20.36 per cent in the Second Plan. But in the Third Plan the average dropped to ₹s.122.97 crores, a marginal decrease of 4.12 per cent over the Second Plan (Table 13).

It is clear from Figure 5 (Appendix II) that the tea exports fluctuated heavily in the period 1950-51 to 1957-58 but later on it showed signs of stabilization.

In Period-II, which began with the Annual Plans, the tea exports were on an increasing trend (Fig.5). The average value of export was higher during the Annual Plans than during the Fourth Plan. But it picked again

Table 13. Plan average export value of agricultural commodities

Value: Rs.Lakhs

Commodities	First	Second	Third	Annual plans	Fourth	Fifth	1979-80 to 1981-82
	10657.4	12827.6	12299	16504.66	14447.6	33189	39618
	-	(20.36)	(-4.12)	--	(-12.46)	(129.71)	(19.37)
Coffee	251	737	1026.2	1732.66	2867.4	11344	17461.33
	-	(193.62)	(39.24)	-	(65.49)	(295.61)	(53.92)
Spices	1823.6	1123.6	1742.6	2717.33	3873.6	9818.6	11982.66
	-	(-30.38)	(55.09)	-	(42.55)	(153.47)	(22.04)
Vegetables and fruits	1536.8	2134.8	3078	6257.66	7700.6	15430.6	22961
	-	(38.91)	(44.18)	-	(23.05)	(100.38)	(48.8)
Fish and fish preparation	394	517.2	543.6	1954.66	4800.2	15495.2	24988.66
	-	(31.26)	(5.1)	-	(145.57)	(222.8)	(61.26)
Sugar excl. molasses	131.2	259.6	1876	1406.33	2504.8	22370.4	8419.66
	-	(97.86)	(622.65)	-	(78.10)	(793.10)	(-62.36)
Tobacco unmanufactured	1252	1399.8	1941.8	2984.33	4716.8	7664.2	14386.33
	-	(11.80)	(38.71)	-	(58.05)	(62.48)	(87.70)
Raw cotton	1644.6	1157	1177.2	1256	2034.8	2042.4	9210
	-	(-29.65)	(1.74)	-	(62.00)	(0.37)	(350.9)
Oil cakes	137.8	1007.6	3164.2	4832	7648.2	13093.8	12348.66
	-	(631.2)	(214.03)	-	(58.28)	(70.20)	(-5.69)
Fixed vegetable oils	2188.4	1118.4	1000.8	616.66	1508.4	3042.2	2463.33
	-	(-48.89)	(-10.51)	-	(144.6)	(101.68)	(-19.03)
Agricultural exports	20958.6	23522	28867.6	41231.66	53077	134479	164746.66
	-	(12.23)	(22.72)	-	(28.72)	(153.76)	(22.50)
	(- - - - Period-I - - - - -)			(- - - - - - - - - Period-II - - - - - - - - -)			

Note: Figures in parantheses indicate percentage increase or decrease over the previous plan

Table 14. Exponential growth rates of selected agricultural commodities - Exports

Commodities	Period-I (1950-51 to 1965-66)		Period-II (1967-68 to 1981-82)	
	In (1+r)	% C.G.R.	In (1+r)	% C.G.R.
1. Tea	0.022 (0.008)	2.22 *	0.0925 (0.015)	9.69 **
2. Coffee	0.1768 (0.029)	19.33 **	0.2022 (0.016)	22.40 **
3. Spices	-0.0116 (0.022)	-1.15 NS	0.1311 (0.015)	14.00 **
4. Vegetables and fruits	0.0661 (0.006)	6.83 **	0.1093 (0.009)	11.54 **
a) Cashew kernels	0.0728 (0.005)	7.55 **	0.0864 (0.011)	9.02 **
5. Fish and fish preparation	0.0426 (0.01)	4.35 **	0.2092 (0.012)	23.26 **
6. Sugar excluding molasses	0.2852 (0.052)	33.0 **	0,1571 (0.056)	17.01 *
7. Tobacco-unmanufactured	0.0339 (0.009)	3.44**	0.1027 (0.031)	10.81 **
8. Raw cotton	-0.0001 (0.022)	0.01 NS	0.0777 (0.07)	8.07 NS
9. Oil cakes	0.5597 (0.067)	75.01 **	0.0925 (0.022)	9.69 **
0. Fixed vegetable oils	- 0.0787 (0.031)	-7.56 *	0.106 (0.04)	11.18 *
Agril. exports	0.0333 (0.005)	3.386 **	0.1254 (0.012)	13.36 **

Note: Figures in parantheses indicate Standard Error
** Significant at 1 per cent probability level
* Significant at 5 per cent probability level
NS Non-significant

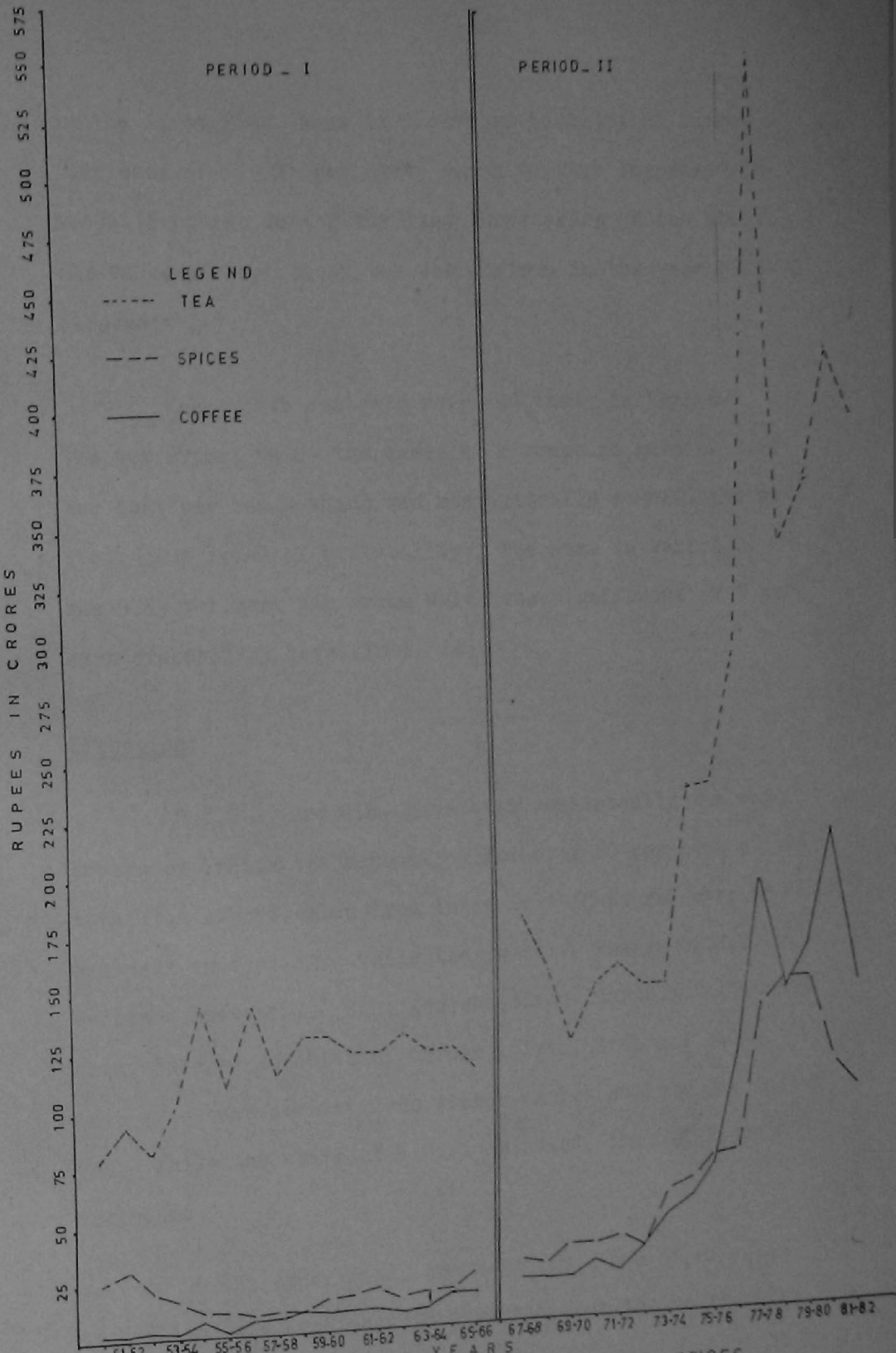


FIG 5. EXPORT VALUE OF TEA, COFFEE AND SPICES

in the Fifth Plan, when it increased to ₹.331.89 crores (increase of 129.71 per cent) which further increased to ₹.396.18 crores during the last three years of the study. The value of exports of tea was maximum in the year 1977-78 (Appendix II).

The growth analysis revealed that, in Period-I the tea export value increased at a compound rate of 2.22 per cent per annum which was statistically significant at 5 per cent level of probability. The same in Period-II was 9.69 per cent per annum which was significant at 1 per cent probability level(Table 14).

Direction:

U.S.S.R. and U.K. have been consistently the major buyers of Indian tea accounting for over 60 per cent of total tea export value from India in 1968-69 and over 53 per cent in 1981-82. While the relative shares of U.K. declined that of U.S.S.R. increased considerably. Afghanisthan, Federal Republic of Germany, Iran, Iraq and Sudan have also been more or less stable market outlets for Indian tea. While the share of U.S.A. dwindled, that of Sudan increased.

On the other hand, the relative share of exports to U.K. in total tea exports declined over the years. The

Table 15. Export of Tea - Direction

Value: Rs. Lakh per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Afghanisthan	755.53 (4.82)	825.68 (5.57)	725.33 (4.92)	813.82 (3.63)	1302.13 (4.44)	1995.34 (5.86)	1525.94 (3.58)	1764.7 (4.46)
Egypt Ar. Rp.	-	-	-	-	1982.73 (6.77)	2414.41 (7.09)	2710.31 (6.36)	1616.13 (4.09)
F.R.G.	384.90 (2.45)	370.02 (2.49)	503.96 (3.42)	766.11 (3.42)	846.48 (2.89)	780.96 (2.29)	1481.52 (3.48)	1242.55 (3.14)
Iran	371.06 (2.37)	348.61 (2.35)	373.69 (2.53)	1381.65 (6.16)	1327.24 (4.53)	1687.22 (4.95)	2505.10 (5.88)	1306.20 (3.30)
Iraq	363.72 (2.32)	54.20 (0.36)	374.44 (2.54)	468.12 (2.08)	673.49 (2.29)	1004.51 (2.95)	898.05 (2.11)	1157.52 (2.92)
Ireland	520.94 (3.32)	466.12 (2.73)	521.34 (3.54)	527.19 (2.35)	629.08 (2.14)	803.83 (2.36)	913.04 (2.14)	684.44 (1.73)
Netherlands	264.21 (1.68)	202.97 (1.36)	927.71 (6.29)	1539.73 (6.87)	436.62 (1.49)	360.73 (1.05)	209.15 (0.49)	265.08 (0.67)
Poland	131.55 (0.84)	158.16 (1.06)	340.09 (2.30)	978.98 (4.37)	1078.67 (3.68)	1719.55 (5.05)	2750.34 (6.46)	2211.37 (5.59)
Sudan	596.13 (3.80)	362.12 (2.44)	856.39 (5.81)	700.62 (3.12)	864.42 (2.95)	1707.89 (5.01)	2086.36 (4.90)	999.32 (2.52)
U.K.	7645.63 (48.85)	6487.35 (43.76)	3941.63 (26.76)	5061.62 (22.59)	8661.42 (29.57)	9276.01 (27.21)	7842.43 (18.43)	7393.57 (18.70)
U.S.A.	565.55 (3.61)	547.56 (3.69)	489.39 (3.32)	2372.65 (10.59)	1448.36 (4.96)	402.11 (1.18)	676.41 (1.58)	527.54 (1.33)
U.S.S.R.	1937.61 (12.38)	2638.82 (17.18)	3242.03 (22.01)	5952.15 (26.59)	5346.42 (18.25)	5875.74 (17.25)	12113.55 (28.46)	13754.05 (34.80)
Total tea exports	15650.92	14824.70	14729.35	22398.51	29286.99	34045.26	42550.40	39520.41

Note: Figures in parantheses indicate per cent share of each country in annual tea exports from India.

share was 48.85 per cent in 1968-69 and it declined to 18.7 per cent in 1981-82.

Tea exports to U.S.S.R. and the relative share registered an increase all along. The value of which was Rs.19.57 crores in 1968-69, increased to Rs.137.54 crores in 1981-82. The corresponding relative shares were 12.38 per cent and 34.8 per cent.

ii) Coffee

Over the years the reputation of coffee as an exchange earner has improved. This is indicated by the average of export values furnished in Table 13. The average export value, which was around Rs.2 crores in the First Plan period increased consistently. The averages during the Second and Third Plans were Rs.7.37 crores and Rs.10.26 crores respectively. The annual export values during Period-I (1950-51 to 1965-66) endorse this trend (Fig.5 and Appendix II).

The same trend continued in Period-II also. The average export value in the Annual Plans was Rs.17.32 crores which increased phenomenally in the next two Plan periods. In the Fifth Plan the average was Rs.113.44 crores - an increase of 295.61 per cent over the Fourth

Plan average. In the remaining years too it increased but the rate of increase was not so spectacular as in the previous periods (see Fig.5). Of course in the concluding years coffee exports showed a tendency to fluctuate.

The compound growth rates of coffee export value for the two periods are presented in Table 14. In Period-I, it was 19.33 per cent and in Period-II, it was 22.4 per cent per annum, both were statistically significant at 1 per cent level of probability.

Direction:

Czechoslovakia, East Germany, U.S.A., U.S.S.R. and Yugoslavia were the major markets for Indian coffee. Eventhough the absolute value of exports to Czechoslovakia and Yugoslavia increased, their relative share came down substantially.

The U.S. and U.S.S.R. absorb the major portion of coffee exports from India. The exports to the U.S. were valued at Rs.2.66 crores in 1968-69 which increased to Rs.54.66 crores in 1978-79 but dropped to Rs.31.01 crores in 1981-82. Similarly, the relative share was 14.85 per cent in 1968-69 which increased to 37.94 per cent in 1978-79 but dropped to 21.2 per cent in 1981-82.

Value: ₹.Lakh per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Australia	18.01 (1.00)	30.84 (1.22)	81.10 (2.46)	332.00 (6.46)	89.01 (0.78)	276.45 (1.96)	142.16 (0.66)	422.34 (2.88)
Czechoslovakia	119.96 (6.67)	256.30 (10.20)	233.72 (7.09)	233.10 (4.53)	131.71 (1.15)	97.77 (0.67)	711.92 (3.32)	610.64 (4.17)
G.D.Rp.	209.11 (11.64)	306.10 (12.19)	-	206.53 (4.03)	47.37 (0.41)	328.31 (2.27)	606.10 (2.82)	181.53 (1.24)
F.R.G.	36.00 (2.00)	50.32 (2.00)	281.2 (8.53)	117.00 (2.27)	712.97 (6.25)	386.88 (2.67)	391.10 (1.82)	1165.76 (7.96)
Italy	-	-	-	-	-	663.84 (4.6)	825.80 (3.85)	503.99 (3.44)
Japan	-	-	-	-	-	305.55 (2.12)	1447.60 (6.75)	989.15 (6.75)
Kuwait	-	-	-	-	374.65 (3.28)	328.77 (2.26)	314.13 (1.46)	177.42 (2.2)
Netherlands	7.61 (0.42)	21.33 (0.84)	133.87 (4.06)	321.60 (6.26)	356.50 (3.12)	511.21 (3.54)	303.85 (1.41)	327.13 (2.23)
U.K.	26.75 (1.48)	19.32 (0.76)	101.60 (3.08)	38.11 (0.74)	33.30 (0.29)	191.60 (1.33)	49.92 (0.23)	14.64 (0.10)
U.S.A.	266.83 (14.85)	254.75 (10.14)	628.00 (19.07)	546.32 (10.63)	2736.2 (23.99)	5466.10 (37.94)	4215.27 (19.67)	3101.68 (21.20)
U.S.S.R.	535.50 (29.70)	692.50 (27.58)	1140.80 (34.64)	1873.40 (36.47)	2991.60 (26.23)	3356.35 (23.29)	8000.20 (37.34)	4803.17 (32.83)
Yugoslavia	218.33 (12.15)	388.25 (15.46)	1.68 (0.03)	664.40 (12.93)	665.71 (5.83)	568.02 (3.94)	1025.32 (4.78)	483.45 (3.30)
Total coffee exports	1795.96	2510.50	3293.00	5135.51	11404.96	14405.61	21423.55	14629.14

Note: Figures in parantheses indicate the per cent share of each country in total annual coffee exports from India.

The exports of coffee to U.S.S.R. were worth ₹.5.33 crores in 1968-69. It increased to ₹.80 crores in 1980-81. Similarly, the relative share also increased over the years.

Other countries to which India exported coffee were Australia, West Germany, Italy, Japan, Kuwait, Netherlands and United Kingdom.

iii. Spices

Spices are an important item of export from India. During the First Plan years, the average export value of spices was ₹.18.23 crores, but dropped by 30 per cent in the Second Plan (Table 13).

Similarly, the export value began at a higher level but decreased till 1958-59 but again increased mildly over the years till 1965-66 but for a decline in 1962-63 (Fig.5 and Appendix II).

The compound growth rate during Period-I was negative but not statietically significant (Table 14)

The export value averaged ₹.27.17 crores during the three annual plans which was on an increasing path since then. The increase (153.47 per cent) was maximum

during the Fifth Plan over the Fourth Plan. During the period between 1979-80 and 1981-82, the export value averaged ₹.119.82 crores - an increase of 22.04 per cent over the Fifth Plan average (Table 13).

Figure 5 (and Appendix II) indicate that the export value of spices was on a strong increasing trend between 1967-68 and 1979-80 but declined in the remaining years.

The export value of spices increased at an annual compound rate of 14 per cent (significant at 1 per cent) (Table 14).

Direction:

U.S.S.R. was the major market for the Indian spices valued at ₹.4.53 crores in 1968-69, which increased till 1980-81 to ₹.26.51 crores. The relative share also increased correspondingly.

The U.S. was the next important market, the exports amounting to ₹.1.63 crores in 1968-69 which increased to ₹.10.11 crores in 1974-75 but dropped to ₹.6.19 crores in 1976-77. In remaining years it declined.

Export of spices to Saudi Arabia followed a zig-zag pattern. While the same to Kuwait was almost stagnant (Table 18).

Table 17. Export of Spices - Direction

Value in Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Bahrein Islands	28.7 (1.14)	54.53 (1.40)	30.7 (1.05)	64.7 (1.05)	99.1 (1.35)	223.83 (1.51)	57.68 (0.51)	41.43 (0.41)
Canada	58.29 (2.31)	100.84 (2.59)	114.11 (3.90)	230.1 (3.75)	262.0 (3.59)	126.25 (0.85)	245.62 (2.20)	168.00 (1.70)
G.D.R.	44.90 (1.78)	90.40 (2.32)	20.35 (0.69)	101.00 (1.64)	156.20 (2.14)	189.46 (1.27)	125.50 (1.12)	184.40 (1.86)
Hungary	32.4 (1.28)	80.45 (2.07)	67.13 (2.30)	103.28 (1.68)	112.44 (1.54)	1.70 (0.01)	1.22 (0.01)	1.26 (0.01)
Iran	-	-	45.12 (1.54)	96.12 (1.56)	80.46 (1.10)	81.80 (0.55)	257.2 (2.30)	207.6 (2.10)
Iraq	9.51 (0.37)	18.31 (0.47)	5.87 (0.20)	40.62 (0.66)	103.50 (1.41)	168.52 (1.13)	133.61 (1.19)	236.42 (2.39)
Italy	100.22 (3.98)	73.36 (1.89)	98.32 (3.37)	148.90 (2.42)	234.94 (3.22)	143.77 (0.97)	202.22 (1.81)	143.60 (1.45)
Japan	45.88 (1.82)	102.64 (2.64)	66.57 (2.28)	131.70 (2.14)	312.15 (4.28)	450.01 (3.03)	284.90 (2.55)	248.10 (2.51)
Kuwait	301.70 (11.99)	400.13 (10.31)	295.6 (10.14)	384.35 (6.26)	660.17 (9.05)	2403.2 (16.23)	1240.40 (11.13)	1348.36 (13.65)
Poland	50.25 (1.99)	99.97 (2.57)	84.38 (2.89)	378.05 (6.16)	270.52 (3.70)	413.94 (2.79)	55.25 (0.49)	-
Saudi Arabia	213.10 (8.49)	504.95 (13.01)	219.75 (7.54)	582.47 (9.49)	379.39 (5.20)	2151.55 (14.53)	1660.92 (14.91)	950.21 (9.62)
Singapore	45.69 (1.81)	59.63 (1.53)	73.61 (2.52)	122.82 (2.00)	186.74 (2.56)	369.40 (2.49)	366.14 (3.28)	427.42 (4.32)
U.K.	96.13 (3.82)	111.13 (2.86)	92.64 (3.18)	150.71 (2.45)	157.06 (2.15)	355.50 (2.40)	211.36 (1.89)	227.36 (2.30)
U.S.A.	163.21 (6.49)	583.34 (15.03)	353.77 (12.14)	1011.44 (16.49)	619.01 (8.48)	691.72 (4.67)	976.56 (8.76)	828.06 (8.38)
U.S.S.R.	453.12 (18.02)	448.04 (11.54)	670.73 (23.02)	1344.20 (21.90)	1869.24 (25.63)	1589.10 (10.80)	2651.97 (23.81)	2363.80 (23.93)
Total spices exports	2514.20	3880.53	2912.91	6133.30	7292.33	14805.57	11135.77	9876.11

Note: Figures in parentheses indicate per cent share of each country in total value of spices exports from India.

iv. Vegetables and fruits

Vegetables and fruits constitute a sizeable portion in agricultural exports from India. The average annual value of exports was ₹.15.36 crores in the First Plan which increased in the next two Plans, the averages being ₹.21.34 crores and ₹.30.78 crores in the Second and the Third Plan periods respectively (Table 13).

Despite year to year fluctuations, the export value of this item maintained a strong uptrend (see Fig.6) during the first sixteen years of the study.

In Period-II, the vegetable and fruit exports grew at an annual compound rate of 6.83 per cent which was statistically significant at 1 per cent level.

During the three Annual Plans the average export value was ₹.62.57 crores which increased in rest of the Plans too. However, the maximum increase of 100.38 per cent over the previous period was observed in the Fifth Plan in which the average value of exports was ₹.154.30 crores (Table 13).

The annual export values showed a tendency to increase in Period-II also. However, a decrease was clearly visible in 1978-79 in which the export value was [illegible] crores (see Fig.6 and Appendix-II).

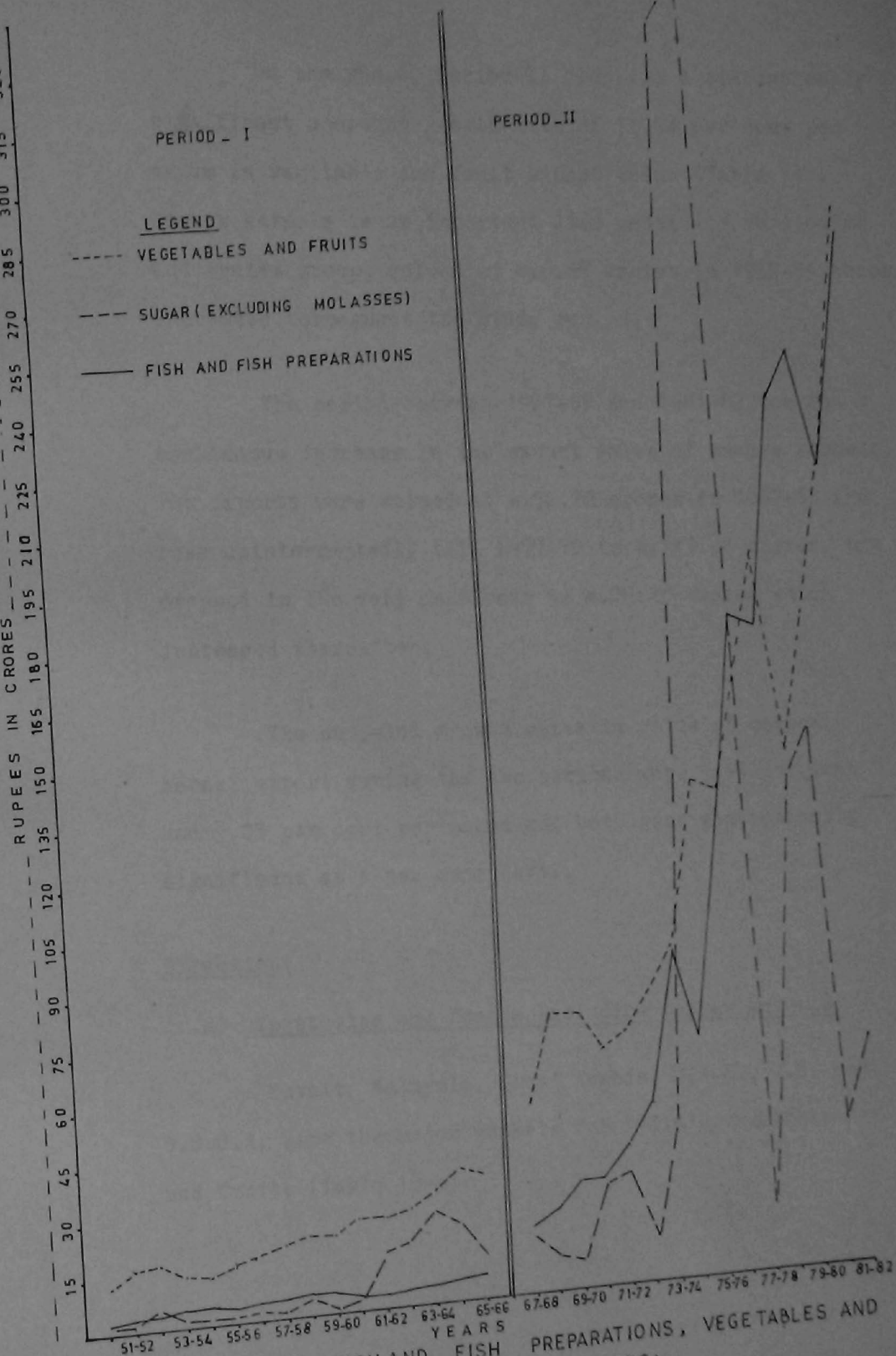


FIG.6 EXPORT VALUE OF FISH AND FISH PREPARATIONS, VEGETABLES AND FRUITS AND SUGAR (EXCLUDING MOLASSES)

On the whole, Period-II recorded a statistically significant compound growth rate of 11.54 per cent per annum in vegetable and fruit export value (Table 14). Cashew kernels is an important item under the vegetables and fruits group, valued at ₹.8.55 crores in 1950-51 which increased throughout the study period.

The period between 1967-68 and 1981-82 too saw a continuous increase in the export value of cashew kernels. The exports were valued at ₹.52.28 crores in 1967-68 and rose uninterruptedly till 1977-78 to ₹.149.54 crores, but dropped in the very next year to ₹.80.23 crores which increased thereafter.

The compound growth rates in value of cashew kernel export during the two periods were 7.55 per cent and 9.05 per cent per annum and both were statistically significant at 1 per cent level.

Direction:

a) Vegetables and fruits excluding cashew kernels

Kuwait, Malaysia, Saudi Arabia, U.A.E., U.K. and U.S.S.R. were the major markets for India's vegetables and fruits (Table 18-a).

Table 18(a). Export of Vegetables and Fruits - Direction
(Excluding cashew)

Value: Rs. lakhs/annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Australia	13.79 (0.89)	23.71 (1.83)	22.74 (1.84)	34.17 (1.91)	54.72 (1.10)	120.45 (1.90)	98.91 (1.24)	77.97 (0.73)
Bahrein Islands	32.08 (2.07)	33.57 (2.59)	25.40 (2.05)	48.10 (2.69)	159.82 (2.92)	128.21 (2.03)	155.10 (1.95)	192.77 (1.818)
France	20.81 (1.34)	39.21 (3.07)	3.63 (0.29)	9.18 (0.51)	197.25 (3.36)	189.40 (3.00)	193.30 (2.42)	240.42 (2.26)
Kuwait	90.05 (5.81)	102.28 (7.89)	121.00 (9.80)	126.51 (7.07)	399.54 (7.31)	304.32 (4.82)	533.72 (6.70)	576.32 (5.43)
Malaysia	108.93 (7.03)	105.68 (8.16)	85.00 (6.88)	226.28 (12.65)	355.86 (6.51)	763.12 (12.09)	283.19 (3.55)	522.66 (4.93)
Nepal	45.87 (2.96)	27.90 (2.15)	44.69 (3.62)	51.93 (2.90)	69.64 (1.27)	119.31 (1.89)	96.53 (1.21)	154.93 (1.46)
Saudi Arabia	6.13 (0.39)	1.92 (0.14)	8.10 (0.65)	39.89 (2.23)	77.32 (1.41)	291.63 (4.62)	389.56 (4.89)	702.36 (6.62)
Singapore	97.38 (1.28)	85.40 (6.59)	74.37 (6.02)	122.94 (6.87)	193.44 (3.54)	275.71 (4.36)	535.85 (6.73)	412.93 (3.89)
Srilanka	17.40 (1.12)	337.20 (26.03)	6.22 (0.50)	-	20.94 (0.38)	198.03 (3.13)	303.83 (3.81)	207.47 (1.95)
U.A.E.	-	-	-	-	-	546.79 (8.66)	1537.15 (19.31)	1810.47 (17.07)
U.K.	163.22 (10.53)	165.85 (12.80)	221.81 (17.97)	330.01 (18.45)	644.57 (11.79)	720.09 (11.41)	585.25 (7.35)	878.23 (8.29)
U.S.A.	66.11 (4.26)	26.32 (2.03)	48.97 (3.96)	53.00 (2.96)	80.45 (1.50)	150.36 (2.38)	150.98 (1.89)	169.76 (1.60)
U.S.S.R.	50.75 (3.26)	125.37 (9.68)	164.81 (13.36)	36.72 (2.05)	536.88 (9.84)	22.56 (0.35)	960.20 (12.17)	2178.85 (20.55)
Total exports of vegetables and fruits excluding cashew	1549.00	1295.00	1234.00	1788.00	5463.00	6310.00	7958.00	10000.00

Note: Figures in parantheses indicate per cent share of each country in total of vegetables and fruits from India.
exports

The value of exports to Kuwait, Malaysia and U.K. showed an increasing trend over the years. But their relative share had declined considerably. On the other hand, the value of exports to and the relative share of Saudi Arabia, U.A.E. and U.S.S.R. had gone up, of which the increase was conspicuous in the case of U.S.S.R. from Rs.0.5 crores in 1968-69 to Rs.21.78 crores in 1981-82. Similarly, the relative share also improved.

b) Cashew kernels

Japan, the U.S. and U.S.S.R. were the major importers of Indian cashew kernel.

Exports to Japan were worth about Rs.0.5 crores, in 1968-69, but increased to Rs.12.14 crores in 1978-79. However, it dropped in the next few years. The relative share also moved accordingly (Table 18-b).

The cashew kernel exports to the U.S. had faced vicissitudes and so had the relative share. The value was Rs.28.96 crores in 1968-69 which fell to Rs.19.01 crores in 1974-75 but shot upto Rs.36.9 crores in 1976-77 and again it decreased in the remaining years of the study.

Over the years, the relative share and the value of exports to U.S.S.R. uptrended consistently. The

Table 18(b). Export of Cashew Kernels - Direction

Value: Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Australia	205.71 (3.37)	121.68 (2.33)	131.00 (1.90)	408.28 (3.45)	481.25 (4.54)	232.34 (2.89)	426.85 (3.04)	538.13 (2.96)
Canada	223.73 (3.67)	255.20 (4.90)	693.70 (10.07)	630.76 (5.33)	728.71 (6.87)	214.72 (2.67)	90.13 (0.64)	16.41 (0.09)
Japan	49.33 (0.80)	102.11 (1.96)	224.18 (3.25)	330.61 (2.79)	1159.36 (10.93)	1214.06 (15.13)	791.11 (5.64)	602.46 (3.31)
U.K.	210.34 (3.45)	107.17 (2.05)	196.60 (2.85)	164.63 (1.39)	186.91 (1.76)	187.50 (2.33)	164.27 (1.17)	197.18 (1.08)
U.S.A.	2896.60 (47.54)	2457.51 (47.19)	2369.87 (34.43)	1901.22 (16.09)	3690.13 (34.81)	2465.16 (30.72)	1712.61 (12.12)	2113.67 (11.64)
U.S.S.R.	1923.03 (31.56)	1468.27 (28.2)	2398.91 (34.85)	2436.14 (20.62)	2949.31 (27.82)	2443.72 (30.45)	9023.71 (64.39)	12720.55 (70.08)
Total cashew kernel exports	6092.90	5206.60	6882.14	11813.73	10598.60	8022.77	14012.94	18149.83

Note: Figures in parantheses indicate per cent share of each country in total cashew kernel exports from India.

relative share increased from 31.56 per cent in 1968-69 to 70.08 per cent in 1981-82 and the corresponding export values were Rs.19.23 crores and Rs.127.2 crores.

V. Fish and fish preparations

The export value of fish and fish products increased from Rs.2.46 crores in 1950-51 to Rs.6.08 crores in 1965-66 (Appendix II). But there were quite a few fluctuations in exports during this period which is indicated by Figure 6.

Average export value of this item was Rs.3.94 crores in the First Plan and it increased in the next Plan by 38.91 per cent. Again there was a marginal increase in the export value of fish products in the Third Plan over the Second Plan (Table 13).

In Period-I, the value of fish and fish preparations exports grew at a compound rate of 4.35 per cent per annum which was statistically significant at 1 per cent level of probability (Table 14).

During the Annual Plans, the average export value was Rs.19.54 crores which rose phenomenally in the next three Plan periods, unlike the first three Plan periods.

However, maximum increase (222.8 per cent) was observed during the Fifth Plan over the Fourth Plan average. The average export value in the last three years of the study was ₹.249.88 crores - an increase of around 60 per cent over the Fifth Plan average (Table 13).

Barring minor fluctuations, the export value maintained an increasing trend throughout Period-II (Fig.6) and hence a compound growth rate of 23.26 per cent per annum was observed, which was statistically significant at 1 per cent level of probability (Table 14).

Direction :

It is clear from Table 19 that Japan, U.K. and the U.S. were the major importers of fish and fish preparations from India.

Exports to Japan were worth ₹.4.67 crores (20.61 per cent) in 1968-69 and increased to ₹.196.97 (70.26 per cent) in 1981-82. Similarly, value of exports to U.K. increased.

Eventhough export of fish and fish preparations to the U.S. had gone up from ₹.13.12 crores to ₹.32.74 crores, the relative share deteriorated considerably.

Table 19. Export of Fish and Fish preparations - Direction

Value: Rs. Lakhs per annum

...ies	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
...ia	60.58 (2.66)	90.92 (2.97)	154.08 (3.05)	219.47 (3.37)	268.33 (1.48)	140.90 (0.62)	159.04 (0.72)	329.67 (1.17)
...	1.07 (0.04)	38.69 (1.29)	133.18 (2.64)	77.87 (1.19)	450.67 (2.50)	892.87 (3.98)	323.03 (1.46)	387.7 (1.38)
...	467.97 (20.61)	1196.06 (39.16)	2910.76 (57.71)	4053.05 (62.35)	11914.17 (66.09)	16476.02 (73.61)	15546.69 (70.70)	19697.34 (70.26)
...	78.10 (3.44)	118.48 (3.87)	214.68 (4.25)	166.72 (2.56)	71.21 (0.39)	127.00 (0.56)	741.85 (3.37)	1431.55 (5.10)
...	1312.12 (57.80)	1210.70 (39.64)	1719.02 (34.08)	1639.92 (25.22)	4549.21 (25.23)	3166.01 (14.14)	2526.59 (11.49)	3274.07 (11.67)
...exports of Fish and ...ish preparations	2270.00	3054.00	5043.00	6500.00	18025.00	22382.00	21989.00	28034.00

Note : Figures in parantheses indicate per cent share of each country in total fish and fish preparation exports from India.

VI. Sugar (excluding molasses)

The value of sugar exports averaged Rs.1.31 crores in the First Plan period which increased spectacularly in the next two Plans and the average was Rs.18.76 crores in the Third Plan (see Table 13).

Figure 6 indicates that during the first period the export earnings from sugar was quite low and the export value however, grew at a compound annual rate of 33 per cent which was significant statistically at 1 per cent level (Table 14).

During the Annual Plans the average value of sugar exports was Rs.14.06 crores which increased till the Fifth Plan when it was Rs.223.7 crores per annum. The average in the last three years of the study dropped by 62.36 per cent over the Fifth Plan average (Table 13).

Figure 6 depicts the fluctuations in sugar exports during the study period. The export value suffered minor fluctuations between 1967-68 to 1973-74 which suddenly shot upto Rs.475 crores in 1974-75 but declined in the very next year to Rs.150 crores. In the remaining years too, it fluctuated heavily (Appendix II).

In Period-II, the value of sugar exports registered an annual compound growth rate of 17.01 per cent which was significant at a probability level of 5 per cent (Table 14).

Direction:

Indonesia, Srilanka, U.K. and the U.S. were the major markets for Indian sugar.

Only in 1974-75 did India export sugar to Indonesia in which the export value was ₹.34.6 crores (10.18 per cent). The value of exports and the relative share increased over the years and in 1981-82, almost the entire sugar export (99 per cent) was directed to this country alone.

In 1970-71 of the total sugar exports from India, Srilanka accounted for 24.22 per cent but in the following years it fluctuated considerably. The exports to Srilanka were maximum in 1978-79, the value put at ₹.18.41 crores.

Exports to U.K. was erratic and the relative share declined over the years. The value of exports to the United States increased from ₹.7.89 crores in 1968-69 to ₹.25.77 crores in 1974-75, but declined considerably thereafter. Similarly, the relative share also declined (Table 20).

Table 20. Export of sugar - Direction

Value: Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Indonesia	-	-	-	3460.39 (10.18)	3469.20 (23.20)	5576.36 (41.11)	1690.00 (42.38)	6307.75 (98.99)
Iran				14392.54 (42.37)	842.00 (5.63)			
Nepal	24.26 (2.39)	17.88 (0.61)	21.24 (1.54)	43.68 (0.12)	37.82 (0.25)	41.59 (0.30)	213.33 (5.35)	0.46 (0.007)
Netherlands	..	26.03 (0.88)	5.77 (0.41)		63.16 (0.42)	220.85 (1.62)	79.57 (1.99)	-
Srilanka	-	709.20 (24.22)	-	949.37 (2.79)	569.82 (3.81)	1841.32 (13.57)	788.82 (19.78)	-
U.K.	220.28 (21.76)	173.14 (5.91)	276.58 (20.11)	579.29 (1.7)	635.70 (4.25)	1013.16 (7.47)	599.77 (15.04)	23.65 (0.37)
U.S....	789.54 (78.01)	859.10 (29.35)	978.58 (71.16)	2577.04 (7.58)	2081.01 (13.91)	1.34 (0.01)	23.09 (0.57)	7.13 (0.11)
Total sugar exports	1012	2927.00	1375.00	33961.00	14951.00	13562.00	3987.00	6372.00

Note: Figures in parantheses indicate per cent share of each of the countries in total annual sugar exports from India.

VII. Tobacco - unmanufactured

Unmanufactured tobacco is an important item of export from India, the average export value in the First Plan being ₹.12.52 crores which increased till the Third Plan to ₹.19.41 crores (Table 13).

Yearwise export value of unmanufactured tobacco are shown in the Figure 7, which indicate that it declined slightly in the initial years (till 1955-56) but then onwards it picked up and increased to ₹.24.4 crores in 1964-65 (Appendix II).

The export value in Period-I rose at an annual compound growth rate of 3.44 per cent which was significant at 1 per cent probability (Table 14).

Period-II also witnessed an increase in the export value of unmanufactured tobacco. During the Annual Plans the average value was ₹.29.84 crores. Then onwards it increased quite considerably as indicated by the percentage increases over the respective previous Plans. The average was ₹.143.86 crores in the last three years of the study (Table 13 and Fig.7).

The compound growth rate in Period-II was 10.81 per cent per annum which was statistically significant at [illegible] per cent level (Table 14).

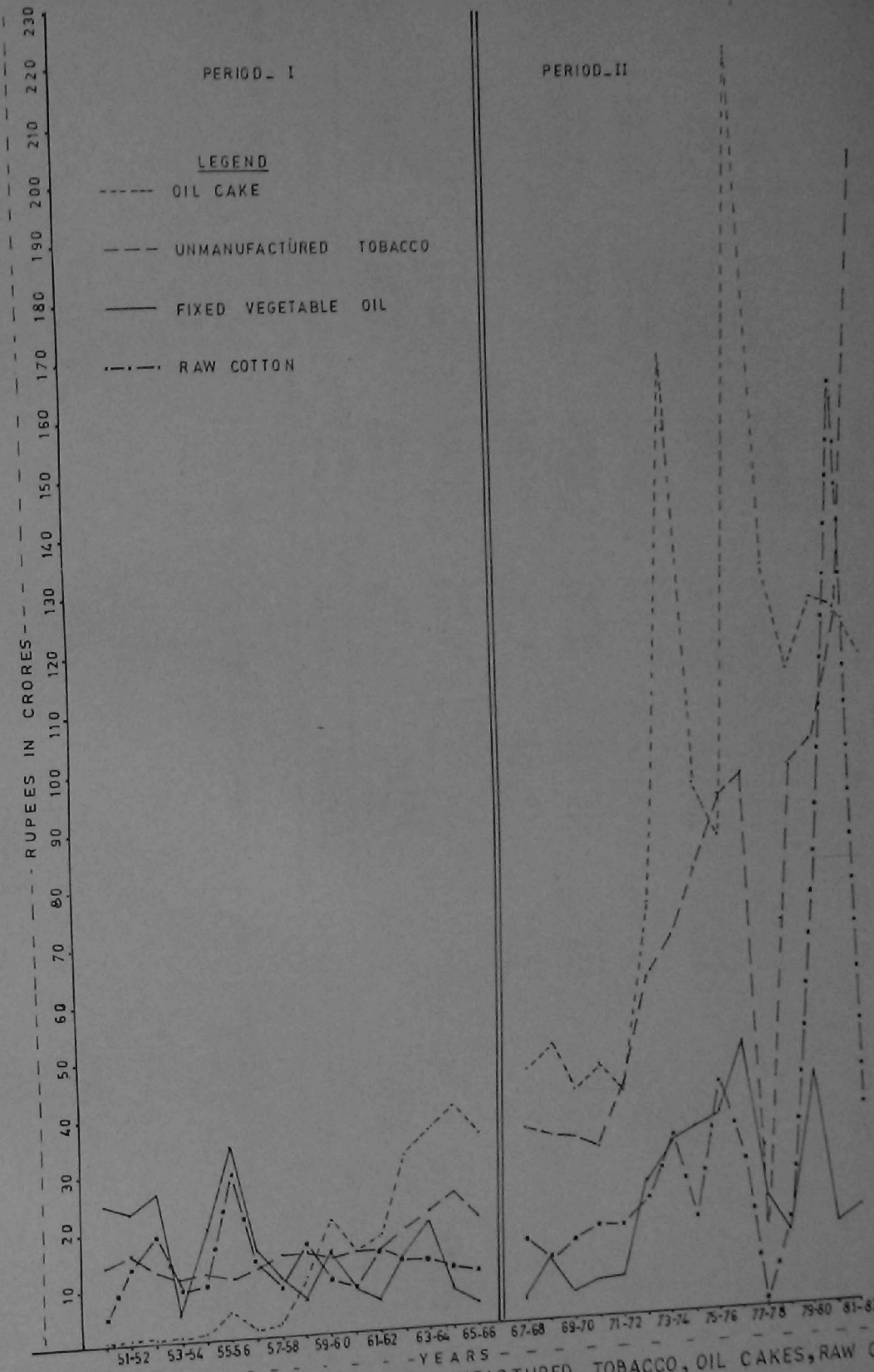


FIG.7 EXPORT VALUE OF UNMANUFACTURED TOBACCO, OIL CAKES, RAW COTTON AND FIXED VEGETABLE OILS

Table 21. Export of Tobacco unmanufactured - Direction

Value: Rs.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Belgium	68.92 (2.07)	22.66 (0.72)	34.70 (0.56)	244.03 (3.03)	131.69 (1.39)	295.85 (3.02)	145.09 (1.15)	264.08 (1.28)
[illegible]lovakia	40.94 (1.23)	-	-	45.63 (0.56)	117.00 (1.21)	123.24 (1.25)	51.50 (0.41)	17.06 (0.08)
[illegible]	78.23 (2.35)	68.40 (2.17)	20.40 (0.33)	18.60 (0.23)	34.53 (0.35)	-	-	-
[illegible]	287.90 (8.68)	239.47 (7.62)	440.68 (7.21)	648.45 (8.06)	876.11 (9.06)	957.35 (9.78)	548.53 (4.40)	833.20 (4.06)
[illegible]	32.06 (0.96)	50.03 (1.59)	80.64 (1.32)	47.97 (0.59)	54.25 (0.56)	62.45 (0.63)	129.83 (1.04)	137.50 (0.67)
[illegible]	1950.54 (58.81)	1661.56 (52.91)	1227.54 (20.10)	3895.76 (48.48)	4233.96 (43.82)	4699.26 (48.03)	3225.93 (25.92)	4331.90 (21.10)
[illegible]	321.01 (9.61)	553.84 (17.63)	2939.72 (48.13)	1722.51 (21.43)	2399.30 (24.83)	2458.98 (25.13)	5048.17 (40.57)	6901.38 (33.67)
[illegible]bacco [illegible]ctured [illegible]	3316.36	3139.76	6106.98	8035.51	9661.81	9782.61	12441.12	20493.41

Note: Figures in parantheses indicate per cent share of each country in total annual unmanufactured tobacco exports from India.

Direction:

The United Kingdom was main importer of Indian unmanufactured tobacco. The export value had risen over the years but the relative shares decreased. The value, which was at Rs.19.5 crores in 1968-69 increased to Rs.43.31 crores in 1981-82. The corresponding relative shares were 58.81 per cent and 21.1 per cent.

On the other hand, the value of exports of unmanufactured tobacco to U.S.S.R. increased over the years from Rs.3.21 crores (9.61 per cent of total unmanufactured tobacco exports from India) in 1968-69 to Rs.69.01 crores (33.67 per cent) in 1981-82. Japan and Belgium were next in importance with 4.06 and 1.28 per cent of the total value of unmanufactured tobacco exports from India.

VIII. Raw cotton

Raw cotton exports fluctuated heavily in Period-I (see Fig.7) wherein it followed a zig-zag pattern without following any pattern.

The Plan average, which to a larger extent irons out the variations, did show signs of the above described pattern. The First Plan average was Rs.16.45 crores which

dropped by almost 30 per cent in the Second Plan but it was stagnant in the Third Plan (Table 13). As a result the compound growth rate in this period was 0.02 per cent per annum which was not significant.

The export value averaged Rs.12.56 crores during the Annual Plans and rose to Rs.20.34 crores in the Fourth Plan. There was no change in the average value during the Fifth Plan over the Fourth. But the last three years of the study saw an increase of 350 per cent over the Fifth Plan average (Table 13).

Figure 7 indicates that the value of raw cotton exports was on an increasing trend till 1973-74 but then onwards it fluctuated violently. For ex. in 1977-78 it was almost negligible but shot upto Rs.164.88 crores in 1980-81 and fell steeply in the very next year (Appendix II).

The compound growth rate in Period-II was 8.07 per cent per annum which was not significant (Table 14) because of year to year variations.

Direction:

Japan had a lion's share in the raw cotton exports from India till 1978-79. The value of exports increased from Rs.8.75 crores in 1968-69 to Rs.13.56 crores in 1978-79.

Table 22. Export of raw cotton : Direction

Value: Rs.Lakhs/annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Bangladesh			826,54 (38.30)	34.24 (2.25)				
Bulgaria	16.65 (1.49)	104.38 (7.48)	148.41 (6.87)	-	11.05 (0.40)		27.96 (0.16)	
Czechoslovakia	33.37 (3.00)	42.79 (3.06)	35.31 (1.63)	-	-	-	172.92 (1.05)	502.47 (13.83)
France	19.9 (1.79)	14.71 (1.05)	11.14 (0.51)	32.76 (2.15)	15.16 (0.56)	-	49.09 (0.29)	1.15 (0.03)
Hongkong	2.53 (0.22)	3.33 (0.23)	0.78 (0.03)	5.51 (0.36)	1137.57 (42.14)	224.1 (13.39)	1315.43 (7.98)	26.21 (0.72)
Japan	875.14 (78.8)	1034.90 (74.16)	1019.5 (47.25)	1382.18 (90.80)	625.90 (23.16)	1356.74 (84.74)	1905.80 (11.55)	335.38 (9.23)
U.S.A.	70.34 (6.33)	75.61 (5.41)	66.35 (3.07)	24.89 (1.63)	26.48 (0.98)	9.31 (0.58)	3.73 (0.02)	
U.S.S.R.	-	-	-	-	-	-	2515.72 (15.26)	1145.25 (31.53)
Total raw cotton exports	1110.49	1395.37	2157.61	1521.74	2699.34	1601.01	16487.54	3631.52

Note: Figures in parentheses indicate per cent share of each country in total annual raw cotton export from India.

The corresponding relative shares were 78.8 per cent and 84.74 per cent.

Hongkong too had a considerable share in India's raw cotton exports since 1976-77.

U.S.S.R. was a late entrant, (as far as raw cotton export from India are concerned), whose share increased from 15.26 per cent in 1980-81 to 31.53 per cent in 1981-82 but actual value of exports declined (Table 22).

IX. Oil cakes

Like fish and fish preparation, oil cake is an item of export which had shown spectacular growth over the years. The First Plan average export value was just ₹.1.37 crores but shot upto an average of ₹.31.64 crores in the Third Plan (Table 13).

The average during the Annual Plans was ₹.48.32 crores which went upto ₹.130.93 crores in the Fifth Plan, an increase of 70.2 per cent over the Fourth Plan average. But the average during the last three years of the study declined by 5.69 per cent over the Fifth Plan average. It may however be noted that there was year to year fluctuation in the export values (Fig. 7 and Appendix II).

Table 23. Export of oil-cakes - Direction

Value: Rs.Lakh per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Czechoslovakia	657.47 (13.28)	659.43 (11.89)	804.91 (10.76)	1433.80 (14.98)	1189.72 (5.31)	987,69 (8.5)	1033.61 (8.26)	1654.82 (14.04)
France			133.15 (1.78)	18.52 (0.19)	831.63 (3.71)	1034.71 (8.93)	184.08 (1.47)	18.31 (0.15)
Hungary	495.93 (10.02)	439.02 (7.92)	469.69 (6.28)	920.02 (9.61)	387.82 (1.73)	- -	- -	- -
Japan	396.01 (8.00)	931.67 (16.81)	1303.25 (17.43(	1050.00 (10.97)	1773.00 (7.92)	124.20 (1.07)	218.84 (1.74)	101.47 (0.86)
Netherlands	16.94 (0.34)	2.01 (0.03)	459.00 (6.13)	179.36 (1.87)	5715.85 (25.53)	4184.54 (36.14)	2868.29 (22.93)	1251.01 (10.61)
[illegible]	1182.43 (23.89)	1066.60 (19.24)	1398.70 (18.70)	2456.00 (25.66)	5419.31 (24.21)	2052.42 (17.72)	2771.58 (22.16)	2022.35 (17.16)
[illegible]	711.58 (14.37)	866.46 (15.63)	696.38 (9.31)	68.36 (0.71)	1317.47 (5.88)	396.19 (3.42)	35.49 (0.28)	94.26 (0.79)
[illegible]	536.19 (10.83)	435.88 (7.86)	1015.40 (13.58)	1116.57 (11.66)	4.46 (0.01)	- -	2945.88 (23.55)	4141.33 (35.14)
[illegible] oil-cakes exports	4947.48	5542.06	7476.82	9570.00	22381.38	11578.70	12508.36	11785.2

Note: Figures in parantheses indicate per cent share of each country in total oil cake exports from India

The export value increased till 1973-74 but dropped in the next two years but in 1976-77 there was an unprecedented increase. From 1976-77 (during which the export value was at its peak) it started decreasing.

The export value of oil cakes recorded a compound growth rate of 75.01 per cent during Period-I. The same in Period-II was 9.69 per cent per annum. Both the growth rates were significant at 1 per cent level (Table 14).

Direction:

Oil cake exports were directed mainly to Czechoslovakia, Japan, Netherlands, Poland, U.K. and U.S.S.R. (Table 23).

Poland, U.K., Czechoslovakia, U.S.S.R., Hungary and Japan the major countries to which oil cakes were exported from India. These countries together accounted for 72 per cent of the total exports of oil cakes. However, over the years oil cake exports to U.K., Hungary have dwindled considerably while that to U.S.S.R., Poland, Netherlands and Czechoslovakia have increased considerably.

X. Fixed vegetable oils:

This is an item which has shown continuous decrease in its value of exports. Plan average-wise, this commodity

ranked second (next only to tea) in terms of total export earnings in the First Plan, valued at Rs.21.88 crores which fell in the next two plans. In the Third Plan, the export value averaged Rs.10 crores (Table 13).

The export value decreased in Period-I at an annual compound rate of 7.56 per cent which was statistically significant at 5 per cent level (Table 14).

The average export value during the annual plans was Rs.6.16 crores which increased in the next two plans, and in the Fifth Plan it was Rs.30.42 crores but dropped in the next three years by 19.03 per cent (Table 13).

During the second period,the annual export values (Appendix-II) showed an increasing trend till 1976-77 and thereafter showed year to year fluctuations. The compound growth rate in this period was 11.18 per cent which was significant at 5 per cent level.

Direction:

In the beginning of the study period (1968-69) U.S.S.R. (35.05 per cent), U.K. (31.03 per cent) Czekoslovakia (12.60 per cent) were the major countries together accounting for 78.69 per cent of total value of export

Table 24. Export of Fixed vegetable oils

Value: ₹.Lakhs per annum

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Czechoslovakia	147.65 (12.60)	96.56 (13.73)	199.90 (8.11)	282.62 (8.39)	61.44 (1.26)	-	10.06 (0.68)	4.67 (0.26)
[illegible]	42.27 (3.60)	26.94 (3.83)	171.45 (6.96)	89.96 (2.67)	257.26 (5.29)	449.5 (33.10)	525.01 (35.71)	968.05 (55.63)
[illegible]	36.81 (3.14)	19.88 (2.82)	28.04 (1.13)	43.87 (1.30)	7.36 (0.15)	9.09 (0.66)	3.44 (0.23)	12.05 (0.69)
Netherlands	8.92 (0.76)	1.68 (0.23)	71.65 (2.9)	200.04 (5.94)	363.07 (7.47)	48.25 (3.55)	49.74 (3.38)	24.07 (1.38)
U.K.	363.4 (31.03)	38.50 (5.47)	307.17 (12.47)	1247.06 (37.05)	1660.77 (34.18)	193.37 (14.23)	198.44 (13.49)	156.38 (8.98)
U.S.	15.09 (1.28)	11.28 (1.60)	505.40 (20.51)	190.10 (5.64)	424.26 (8.73)	113.95 (8.39)	185.36 (12.60)	5.26 (0.30)
U.S.S.R.	410.53 (35.05)	449.37 (63.92)	728.57 (29.58)	1083.97 (32.21)	820.73 (16.89)	2.10 (0.15)	-	-
Total fixed vegetable oil exports	1171.00	703.00	2463.00	3365.00	4858.00	1358.00	1470.00	1740.00

Note: Figures in the parantheses indicate per cent share of each country in total fixed vegetable oil exports from India.

of vegetable oils from India. However, over the years exports of this item to these countries has been quite negligible. It is noteworthy that Japan which was not an important market for vegetable oils from India has of late emerged as a major importing country from India accounting for over 55 per cent of the total export of vegetable oils from India. Next in order comes U.K. accounting for about 9 per cent of India's exports.

Agricultural exports:

Unlike agricultural imports, agricultural export value was on a steadily increasing trend. This is indicated by the average exports during the plans.

In the First Plan the average value of agricultural exports was Rs.209.58 crores which rose to Rs.235.22 crores in the Second Plan which further increased in the Third Plan by 22.72 per cent (Table 13).

Not much variation was observed in the agricultural exports over the years but for a mild increasing trend throughout (Fig.4 and Appendix II).

In Period-I, the value of agricultural exports registered a steady increase from Rs.177.75 crores in 1950-51 to Rs.281.14 crores in 1965-66 recording an annual

growth rate of 3.38 per cent which was significant at 1 per cent level.

The average export value during the Annual Plans was Rs.412.31 crores, which increased from plan to plan, but the rate of increase was maximum in the Fifth Plan over the Fourth (153.76 per cent). In the last three years of the study, the average export value was Rs.1647.46 crores which was an increase of 22.5 per cent over the Fifth Plan average.

Throughout Period-II, the export value of agricultural commodities kept on increasing, which was Rs.420.7 crores in 1968-69 increased to Rs.1658.18 crores in 1981-82 (Fig.4 and Appendix-II). The export value grew in Period-II at a compound rate of 13.36 per cent per annum which was significant at 1 per cent level of probability (Table 14).

Composition of agricultural exports:

Major items which constitute the agricultural exports from India were tea, coffee, spices, vegetables and fruits, fish and fish preparations, sugar excluding molasses, unmanufactured tobacco, raw cotton, oil cakes and fixed vegetable oils (Table 25).

Tea was the most important item among the agricultural exports. Its share was 45.24 per cent in 1950-51 which rose to 51.36 per cent in 1960-61 but declined then onwards. It was minimum in 1975-76. Relative sharewise tea was ranked top item of export but for two occasions when the first place was occupied by oil cakes and sugar.

The relative share of coffee in 1950-51 was negligible but it gradually improved over the years to around 10 per cent.

Eventhough the value of spices exports increased over the years, its relative share in agricultural exports declined substantially. Initially its share was 14.35 per cent which decreased to around 6 per cent in 1981-82. There was a sudden decline in the relative share of spices during the mid and late Fifties but increased slightly in the Sixties. But never could it reach the original share it had in 1950-51 and 1951-52.

The share of vegetables and fruits in agricultural exports increased over the years. The relative share was 7.17 per cent in 1950-51 and increased to 14.25 per cent in 1970-71 but dropped to 9.79 per cent in 1975-76 and again increased to 17.33 per cent in 1981-82.

Table 25. Composition of agricultural exports

(Percentage)

...ties	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1979-80	1980-81	1981-82
	45.24	46.68	51.36	40.84	32.5	17.21	22.75	25.51	23.83
...ee	0.75	0.64	3.83	4.60	5.50	4.84	10.10	12.84	8.32
...ice	14.35	4.56	6.90	8.21	8.50	5.19	9.24	6.67	5.35
...egetables and ...uit	7.17	6.54	10.79	12.38	14.25	9.79	11.23	13.17	17.33
...ish and fish ...reparations	1.38	1.60	1.91	2.41	6.69	9.24	15.43	13.18	16.90
...ugar	0.21	0.41	1.36	4.21	6.41	34.53	9.21	2.39	3.34
...obacco-unmanufactured	7.93	4.55	6.07	6.96	6.88	6.76	6.32	7.45	12.35
...aw-cotton	2.77	12.70	3.60	3.45	3.59	3.00	4.64	9.88	2.19
...aw-wool	14.42	4.16	2.95	2.29	1.11	0.26	0.08	0.05	0.12
...il cakes	0.01	2.26	5.94	12.32	12.14	6.25	7.88	7.49	7.10
...egetable oil-non essential	14.28	14.74	3.59	1.51	1.60	2.66	2.65	0.94	1.10
...egetable oil-essential	1.49	1.16	1.70	0.82	0.83	0.27	0.47	0.43	0.47
...otal	100.00	100.00	100.00	100.00	100,00	100.00	100.00	100.00	100.00
...otal value of ...grl.exports	17775	23377	24065	28114	45615	137580	161635	166787	165818
...hare of agril. ...xports in total exports.	29.59	39.20	36.44	34.72	29.92	34.99	25.30	24.91	21.26

Fish and fish preparations were another group of exports which rose from ashes, whose share was just 1.38 per cent in 1950-51 but kept on increasing and it was 16.9 per cent in 1981-82.

Like the value of its exports, the share of sugar in agricultural exports fluctuated heavily. It was 0.21 per cent in 1950-51, increased slowly to 6.41 per cent in 1970-71 but dropped during the Fourth Plan years. But it again shot up in 1975-76 in which year sugar was the top export item accounting for 34.53 per cent of the total value of agricultural exports from India in that year. In the remaining years it dropped again to around 3 per cent.

The relative share of tobacco unmanufactured was almost stagnant, hovering around 10 per cent. In 1950-51 it was 7.93 per cent which dropped to 4.5 per cent in 1955-56. From 1955-56 onwards, till 1970-71 it was around 6.5 per cent, barring a few occasions on which the share exceeded the mark of 8 per cent.

There was considerable variation in the relative share of raw cotton exports. It was 2.77 per cent in 1950-51 and increased to 12.7 per cent in 1955-56 but dropped in the next three years to around 3 per cent. It increased

again to 9.88 per cent in 1980-81 but dropped to 2.19 per cent in the very next year.

Like fish and fish preparation, exports of oilcake too accounted for a bare minimum in 1950-51 which kept on increasing till the end. By the Seventies it became a major item in India's agricultural exports.

Fixed vegetable oils is one group of exports, whose share continuously declined over the years.

Direction:

India's agricultural exports were directed mainly to four countries namely, Japan, U.K., U.S.A. and U.S.S.R. together accounting for 63 per cent and 59 per cent of total agricultural exports respectively in 1968-69 and 1981-82 (Table 26).

The value of agricultural exports to Japan which was Rs.22.04 crores in 1968-69 increased over the years to Rs.238.84 crores in 1981-82. Similarly, the relative share also increased.

Agricultural exports to U.K. and U.S.A. increased till 1978-79 but dropped thereafter. Over the years their shares also declined.

Table 26. Agricultural exports: Direction

Value: Rs. Lakhs (annual)

Countries	1968-69	1970-71	1972-73	1974-75	1976-77	1978-79	1980-81	1981-82
Australia	757.47 (1.8)	564.11 (1.24)	737.36 (1.35)	1628.26 (1.45)	1809.84 (1.31)	1211.36 (0.87)	1206.31 (0.72)	1748.65 (1.05)
Belgium	652.04 (1.54)	968.34 (2.13)	1082.01 (1.97)	1384.46 (1.23)	1502.29 (1.09)	633.43 (0.45)	860.89 (0.52)	639.01 (0.38)
Czechoslovakia	1151.95 (2.72)	1218.81 (2.68)	1719.78 (3.14)	2383.32 (2.12)	1805.74 (1.30)	1671.86 (1.21)	2371.26 (1.42)	3433.68 (2.07)
F.R.G	546.49 (1.29)	557.78 (1.30)	1175.88 (2.15)	1184.55 (1.05)	2294.29 (1.66)	2079.42 (1.50)	2525.00 (1.51)	2815.53 (1.70)
Iran	384.95 (0.91)	365.67 (0.80)	448.74 (0.82)	15951.99 (14.23)	2348.33 (1.73)	1788.86 (1.29)	2769.12 (1.66)	1516.71 (0.91)
Japan	2204.97 (5.20)	3720.34 (8.20)	6190.17 (11.32)	7742.2 (6.91)	16975.01 (12.31)	21485.67 (15.51)	21354.35 (12.80)	23884.97 (14.40)
Kuwait	402.56 (0.95)	513.8 (1.13)	431.76 (0.78)	569.25 (0.50)	1803.94 (1.30)	3488.73 (2.52)	2593.04 (1.55)	3173.13 (1.91)
U.K.	11660.3 (27.52)	9861.9 (21.73)	7690.89 (14.06)	11870.07 (10.60)	17882.3 (12.97)	17199.61 (12.41)	13726.70 (8.23)	14794.99 (8.92)
U.S.A.	6206.69 (14.65)	6088.61 (13.42)	7284.10 (13.32)	10592.8 (9.45)	15772.95 (11.44)	17338.09 (12.51)	10683.55 (6.40)	10799.71 (6.50)
U.S.S.R.	6523.31 (15.40)	7227.36 (15.93)	12537.81 (22.93)	16408.05 (14.64)	17392.05 (12.62)	18052.34 (13.03)	43557.64 (26.11)	48154.79 (29.04)
Total agril. exports	42355.41	45368.92	54678.67	112032.57	137813.81	138507.76	166786.74	165818.79

Note: Figures in parantheses indicate per cent share of each country in total agricultural exports from India.

On the other hand, exports to U.S.S.R. increased over the years. In 1981-82, it was the major importer of Indian agricultural items accounting for over 29 per cent of agricultural exports from India. This was followed by Japan accounting for about Rs.239 crores or 14.40 per cent of agricultural exports from India. U.K. and U.S.A. came third and fourth major markets for agricultural exports from India.

Other countries to which Indian agricultural commodities were exported were Australia, Canada, Czechoslovakia, West Germany and Kuwait.

DISCUSSION

V. DISCUSSION

In this chapter results presented in the previous chapter are discussed.

Agricultural imports:

Agriculture is the main occupation for majority of Indians. It would not be an exaggeration, if it is said that they cannot produce enough food for themselves. A discussion on the reasons for this is not the interest of the present study. This inability to produce or aptly putting the "self insufficiency" has made import of agricultural commodities imperative.

The theory of International Trade tells us with authority that a country endowed with surplus labour, goes for producing and exporting of those items, production of which involves intensive use of surplus resource - namely labour and import those items whose production involves intensive use of scarce resources - essentially capital.

It is a well established fact that India enjoys surplus labour, taking for granted that there exists no factor price distortions. Moreover qualities of most of the labour in India is such that it is suitable to an occupation, such as, agriculture - the sector known to [illegible].

Logically speaking, India should have produced agricultural commodities in excess of her requirement and exported them. But the fact that, despite enjoying necessary agro-climatic conditions India imported vital needs of life such as wage goods, raw materials like cotton and jute, vegetable oils, etc., over the years, tempts one to feel that the above argued logic is a myth and far from reality.

Eventhough the above fact is disgruntling, one can be complacent to the extent that the production of agricultural commodities is still at the mercy of monsoons - a synonym for irregularity and hence beyond the control of farmers.

Another problem which has hindred the process of economic development is the ever growing population, which require additional stocks of basic needs and the demand for these items shoots up. When demand increases at a faster rate than the supply, prices naturally go up and the much feared devil of inflation threatens to haunt.

If increasing population is one factor that increases demand, increasing incomes of majority of the labour force is another. The economy, committed to industrialization, increased the investment in this sector, as

a result of which, income of many rose and they started consuming more of the basic needs. Hence, demand for the basic amenities rose sharply widening the gap between supply and demand.

Thus, the instability in production on one hand and the ever increasing demand on the other created a gap, which had to be bridged and the Government resorted to importing them, as a short run curative measure.

Mere, what is more important is the factors that determine the size of imports. They are the actual gap between demand and supply and the sources of imports along with the terms and conditions.

Besides these two factors, there is one more factor, which is crucial particularly in the case of developing country like India, namely, the foreign exchange reserves. The requirements of a developing nation are manifold and hence judicious management of foreign exchange is imperative. Therefore, in India, Government plays an important role in its foreign trade and puts in an all out effort to restrict the imports to available foreign exchange. Thus, imports into India are determined by capacity to import rather than the propensity to import as proposed by the classicists.

In this context the policy of "Import substitution" is meaningful, which has played a benign role in safeguarding the interests of domestic production front, eventhough the effects of this policy are clearly visible in the industrial sector.

Eventhough import substitution is effective in case of many industrial products, the same could not be extended to the basic raw materials and capital requirements of these industries. In this sense, agricultural import items have better prospects to be substituted by gearing up domestic production. In the last three decades, the food grain production has tribbled and at present Indians are proud of being "self-sufficient" in food grains. But, this spectacular increase in production was not smooth and at times there were serious shortages in supply. Besides this, demand too increased tremendously. As a measure to combat this imbraglio India imported vast quantities of food grains, particularly wheat from the U.S. under the PL-480 aid programme. Even during the Seventies when food grain production had risen considerably, the U.S. was the major source of cereal imports for India.

Partition of India into Union of India and Pakistan in 1947 resulted in serious imbalance in the

economy and the nascent India had to rehabilitate the victims of partition. The problem of food shortage was transparent. The planners recognised this problem and gave priority to agriculture in the First plan in terms of investment. Besides this positive stance, monsoons too were favourable and food grain production increased. This situation reduced the size of imports which declined till 1956-57 (Fig.1). But the average import value rose marginally in the Second Plan which further increased during the Third Plan. The reason for this increasing trend was the outbreak of two wars and a series of crop failures due to drought.

Hence, value of cereal imports registered a compound growth rate of 6.16 per cent per annum in Period-I. But a study by Ghosh (1971) indicated that the import value of cereal and cereal preparations declined. This is because of the fact that the study related to the period extended upto 1969-70, during which period the imports declined possibly due to the impact of the Green Revolution.

The droughts of 1965-66 and 1966-67 had their impact even in 1967-68 and cereals import value was Rs.518.2 crores. The remaining two year of the Sixties saw a spectacular transition in Indian agriculture - a

result of High Yielding Variety Programme. Therefore, food grain production increased substantially obviating the need for higher imports, during the Fourth Plan years.

In the Fifth Plan, there was an enormous increase in cereal imports, in which the average rose by 175.39 per cent over the Fourth Plan imports. This was due to increased quantum of imports to meet the domestic demand and to maintain sufficient buffer stocks. In the last three years of the study, imports declined and so had the compound rate in Period-II (-4.38 per cent).

Agriculture was the priority sector in the First Plan in which many irrigation projects were initiated and infrastructural facilities were developed to increase domestic production of agricultural inputs. But these had a long gestation period. Moreover, importance shifted to industrial sector in the Second and Third Plans. Hence, agriculture did not fare well as expected, which is to some extent indicated by increased cereal imports.

Besides, there were no dynamic programmes which could reach the farmers and improve the cultivation methods. Also, Indian agriculture is known for its technical backwardness as indicated by use of low yielding local varieties, low fertilizer consumption and poor

mechanization. As a consequence total production and the average yields were far below those in the advanced countries. It was due to this reason that the fertilizer imports were of low order in Period-I. But in the last years of the Third Plan fertilizer imports increased since the High Yielding Variety Programme was about to begin (Fig.1) and therefore it registered an annual compound growth rate of 18.96 per cent (Table 2) in Period-II.

The efforts put in by the Government in terms of irrigation projects, improved agricultural extension services and release of hybrid and high yielding varieties bore fruits by the turn of the Sixties. Therefore demand for chemical fertilizers increased spontaneously. On the other hand domestic production suffered due to frequent power cuts, lack of raw materials and labour unrest which prevented capacity utilization. Hence, it was thought proper to import fertilizers in order to augment the supplies. Therefore import value increased over the years.

Another factor responsible for increase in the import value of fertilizers was rapid increase in the prices of petroleum products.

From 1977-78 onwards fertilizer became a major item of imports relegating cereal imports to lower

position. (Fixed vegetable oils' importance suddenly grew to height which can be seen from Figure 1).

One thing is clear from the above analysis. On one hand cereal imports showdd a declining trend but on the other hand fertilizer imports have grown enormously. If one claims that cereal imports have been effectively substituted with domestic production, it is not so. Instead of foodgrains, fertilizer an essential input had been imported. Another way of putting this is instead of importing the final products, spare parts are imported but are assembled locally, as done in many industries (e.g. T.V.) even though the situation may not be a perfect match. Of course, there is room for complacency since production of food grains involves not merely fertilizers but many other vital resources at the nation's disposal, whose productivities too have increased during the period.

As indicated earlier, poor mechanization is another problem. Even the planners thought that it would be wiser to have native tools and implements instead of mechanizing with improved ones. The Planning Commission observed that "the small size of holdings, the absence of avenues of employment other than agriculture, shortage of fuel oils

and iron and steel are factors which militate against the use of tractors in this country for cultivation on substantial scale and by and large, Indian agriculture will continue to depend upon animal power for a long time to come" (First FYP, GOI, PC). Therefore, import value of these items were low. But agricultural developmental and hybridization programmes called for improved agricultural machinery and implements which had to be imported. Despite this, the import value recorded a low rate of growth (0.02 per cent per annum).

In Period-II, this item registered a negative growth rate of 9.65 per cent which might be attributed to i) increased domestic production of suitable implements, ii) unsuitability of imported equipments to Indian field conditions iii) non-availability of spare parts and services.

Similarly, tractors import value recorded a positive growth rate in Period-I but it was negative in Period-II, which was mainly due to i) increase in domestic production of tractors over the years, ii) decreasing demand as a result of apprehension of ceiling on land holdings and involvement of heavy investment.

Import markets for these items were highly concentrated. The U.S. had major share in cereal grain and fertilizer imports. Since India obtained cereal grains under PL-480, it is logical to expect U.S.A. to have a major share. Next to U.S.A., Canada was a major supplier of wheat to India, while rice came from South East Asian countries.

The agricultural machinery and implements were mostly imported from Czechoslovakia, Japan, Poland, Roumania, U.S.S.R. and Yugoslavia.

Raw cotton and raw jute were the major raw materials imported into India. These two crops were affected most by the partition. As a result of which major cotton and jute growing areas went to the then East Pakistan and the related industrial establishment were in the Union of India. Besides, there were frequent monsonic upsets which hampered production. These factors necessitated import of raw cotton and raw jute in order to safeguard the interests of the two industries. Therefore, the import values of the two items were of high order in the early fifties (Fig.3). But in the subsequent years, these imports were substituted by domestic production and import values dropped. Hence,

both the commodities registered negative growth rates (-3.75 per cent and -2.3 per cent). In Period-I import of these two items were governed by fluctuations in domestic production which is clearly indicated in Fig.3, (since the two curves are of similar shape but for difference in magnitude).

However, the pattern of the two curves of raw cotton and raw jute in Period-II (Fig.3) is not the same as it was in Period-I indicating change in the factors that govern size of imports. If instability in domestic production during Period-I made imports imperative it was increasing domestic demand that was responsible for variations in import of these two items in period-II.

Raw cotton imports followed a zig-zag pattern. It was valued at Rs.113.38 crores in 1969-70 but fell in the next six year. During 1976-77 and 1977-78 the import value increased because India obtained raw cotton from the U.S. under commodity assistance programme. But in the following years there was a precipitous decline in the raw cotton imports and was a mere Rs.2 lakhs in 1980-81. Hence, a moderate base and very low imports in the last few years resulted in a negative growth rate (-30.82 per cent). In this period imports were largely a function of domestic demand.

On the other hand raw jute imports registered a compound growth rate of 2.08 per cent. But annual import values (Appendix-I) indicate a year to year fluctuations. Till the penultimate year of the Fourth Plan it declined, despite a gap between domestic demand and supply, as a consequence prices of raw jute increased. In the last few years imports declined. Hence the growth rate was not significant eventhough positive indicating yearly fluctuations.

There were frequent changes in the sources of raw cotton and raw jute imports besides being concentrated. Raw cotton was supplied by Sudan and U.A.R. till 1974-75 but in 1981-82 Pakistan supplied the entire quantity. During the intermediary years, it originated from the U.S.

Singapore was the major supplier of raw jute till 1970-71. In the next few years, almost the entire imports came from Bangladesh. But in the last two years Nepal was the major supplier. Thus, it can be inferred that the import markets for these two items are highly concentrated.

Fixed vegetable oils - a heterogeneous group including edible and non-edible oils, such as, soyabean

oil, cotton seed oil, rape colza oil, linseed oil, castor oil and palm oil, was an import item of minor importance in Period-I. In this period, there was instability in oil seed production, which had to be supplemented through imported oils. This is indicated by yearly fluctuations in the oil import value (Appendix-I).

Even in Period-II, import value of fixed vegetable oil was of low order till 1975-76. But later it grew at an alarming rate and this item became a very important item of agricultural imports. This is due to rapid increase in the domestic demand for edible and non-edible oils. Also, the development of soap, detergent and varnishes industries added to the already growing demand. In order to increase the domestic supplies, Government decided to import them channelizing through the State Trading Corporation. These oils were imported mostly from U.S. and Canada under aid programmes. Therefore, this item registered a growth rate of 39.37 per cent per annum in this period (Fig.1). Besides, the U.S. and Canada, Malaysia and Brazil were the countries from which India imported vegetable oils.

Vegetables and fruits and dairy products were the other two items of import.

The vegetables and fruits group includes both fresh and processed fruits and vegetables which are either not produced or produced in lower quantities and thus cannot match domestic demand. The various items under this group are given in Appendix-IV. These items have higher income elasticities and hence the size of imports is determined by domestic demand, which has increased over the years and so is the value of imports (3.65 per cent and 4.46 per cent).

Raw cashewnut is an important item under this group. The import of raw cashewnut had risen over the years, in order to meet the processing requirements of cashew industry. But in the late Seventies, the imports had come down mainly due to setting up of processing units and other infrastructural facilities in some African countries from which India imported raw nuts for processing. Moreover, China had effectively eroded India's position by offering better prices for raw nuts in these countries.

The above fact is confirmed by the absence of imports from East African countries and substantial decrease in imports from Tanzania. The remaining items were obtained mostly from Afghanisthan, Iran, Iraq etc.

It is a well known fact that the per capita availability of milk and milk products in India is very low when compared to any developed country. Despite having largest cattle population in the world, milk productivity in India is very low. The reasons are aged and uneconomic bovine stock, in ability to produce milk (they are suitable for draft purposes). Physiological factors like late maturity and parturition, delayed oestrue cycle further incapacitate the female stock from becoming more productive and finally death rate among the young stock is high.

Due to all these reasons production could not match demand and imports had to be resorted to. In Period-I, dairy product imports fluctuated heavily (Fig.2) which might be due to the fact that based on the exchange reserves, the size of the imports were decided besides, variation in domestic production.

But in Period-II, the Government of India was well determined to improve the supply situations and the nutritional status of an average citizen. Therefore programme such as operation Flood I and II were launched and dairy products were imported on a large scale from E.E.C. and U.S.A. under air programmes. Therefore, the

dairy products import value registered a highly significant compound growth rate of 19.47 per cent.

This suggests the need for further intensive and concerted efforts within the country to increase production of milk and other dairy products to meet internal demand and thus save foreign exchange.

It is clear from the above analysis that there were changes in the composition of agricultural imports. While some items were declining in importance a few others had grown. Cereals, cotton and jute items were the major imports in Period-I but they declined in Period-II. Fertilizer and vegetable oil imports maintained a low profile in Period-I but grew substantially in Period-II. Similarly, dairy product and vegetable and fruit groups' share also were on an increasing trend.

Most of the agricultural imports originated from U.S. Foodgrains, cotton and jute, fixed vegetable oils and fertilizers - all these items were imported from this country, since there were tied to various aid programmes.

Moreover the direction depends on the political relations than the economic considerations. In this regard, imports from U.S.S.R. had risen. Other sources of imports were E.E.C. and some East European countries.

Agricultural exports:

Agricultural commodities form an important component in the Indian export mix. In the wake of restricted ability to trade the semi-manufactured and manufactured items in the international markets, agricultural exports assume paramount importance as foreign exchange earners. If it is said that the agricultural items are better traded, it is just a comparative assessment and does not mean that it is free from problems.

Problems of agricultural exports are multi-dimentional. It begins with problems of production, processing, storage, marketing, quality control, increasing costs, competition from substitutes and fluctuating demand in the foreign markets. Besides these problems, ever growing domestic demand pulled down the exports of many items and the Government had to use its iron hand in restricting the exports to deviate them to the domestic market.

Despite these considerations the value of agricultural exports rose at a compound annual rate of 3.38 per cent in Period-I. In Period-II, the compound growth rate was higher (13.36 per cent) which may be attributed to improvement in the unit values of many items and increase in the quantum of exports of coffee, fish products and oil

cakes. As a result, the value of exports increased from Rs.420 crores in 1967-68 to Rs.1658 crores by 1981-82.

There were changes in the composition of agricultural exports. In the Fifties tea was the major foreign exchange earner which continued to be so, till the end of the study period. But its relative share in total agricultural exports decreased considerably. On the other hand, items like fish products and oil cake exports were negligible in the Fifties but rose to prominence in the Seventies and by the turn of the Seventies these two were major items of export. Coffee was another item whose share improved. But share of raw cotton and sugar fluctuated heavily. Fixed vegetable oils group was an export item whose share decreased substantially over the years.

It is a known fact that increase or decrease in the value of exports of a commodity is the result of two variables i) changes in quantity exported ii) and changes in the unit prices. As indicated in the Methodology chapter, vertical summation of quantities of different forms of export of same item is erroneous. So, to make them a single, homogeneous group, construction of indices is the only way out. Again, indices cannot be computed for a longer period (like one in the present study) because in

the export sector, being a dynamic one, changes are bound to occur. The form in which an item is exported may undergo changes to such an extent that the two cannot be taken as of the same form. Moreover disaggregated data is available only after 1957. Therefore, the Director General of Commercial Intelligence and Statistics in their publication have given the quantum and unit values indices with two bases i.e. 1958 and 1968. Eventhough the entire period is not considered, it gives a clear cut idea of increase or decrease in real terms. Therefore these have been made use in discussing the variations in export values (Appendix III-a and III-b).

The agricultural exports could easily be divided into two categories, viz., food and non-food. The former includes tea, coffee, spices, vegetables and fruits, fish products and sugar. All these items excepting spices registered positive growth rates in Period-I. Tea, the major foreign exchange earner during the entire thirty year period, was the item with lowest growth rate of 2.22 per cent. Ghosh (1971) too observed a stagnation in the value of tea exports, in the period 1950-51 to 1968-69.

India has the pride of being the largest producer, consumer and exporter of tea. Production of tea increased substantially over the years. This was mainly due to increase in productivity which rose from 8 quintals per hectare in 1950 to 14.5 quintals in 1981. The total production increased from 275 million kgs to 570 million kgs. Despite this brilliant performance on the production front, the growth in exports was not encouraging. Looking at the indices we can make out that tea exports in real terms declined over the years in Period-I (Appendix III-a). This is further substantiated by decreasing export-production ratio which was well over 70 per cent in 1950 dropped to 37 per cent in 1981. This is mainly due to increased domestic consumption.

Secondly, without an international consensus, world tea production went up to such an extent that the supply outwitted the demand resulting in frequent price fluctuations, making export of tea a risky venture. At the same time, domestic demand for tea increased at a faster rate and domestic market served as a safe and profitable alternative.

Inspite of all these factors, tea export value grew at a faster rate from 1974-75 onwards, which is

mainly due to increase in the unit values (Appendix-III-b), which is a consequence of rapid increase in the prices of coffee in the world market (thus increasing the demand for the substitute - tea).

Coffee, the other beverage item, has bright future in the years to come as a foreign exchange earner. Coffee production too had increased over the last three decades which is due to increased productivity. In this regard, the services of the Coffee Board is commendable which has provided timely input supplies, credit and marketing facilities. Also, it has brought about stability in the prices offered to the coffee plantation owners.

Increased production of coffee resulted in increased exportable surpluses. The increasing quantum of exports led to increasing export earnings despite a decline in the unit values of coffee in the world market. The quantum index (with 1958-100) increased to 178 in 1965-66 (Appendix III-a) whereas the unit value index did not cross the base year mark but for 1965-66 with just 101. Therefore, the entire growth in the export value was due to increased quantum of exports which had offset the negative effect of declining prices and brought about a positive growth in export value of coffee. These results are in confirmity with the findings of Agarwal et al. (1982).

Other than increasing production, the international coffee council of 1968 and the successive agreements between the exporting and importing countries brought about stability in the world coffee prices which helped in coffee export expansion in India. Also, frequent revision of the annual quota for India under circumstances of rising world coffee prices and the decision of the International Coffee Council to do away with the distinction between quota and non-quota countries added further impetus to coffee exports.

As a result of increased quantity and unit prices (Appendix III-b) export value grew at a commendable rate of 22.04 per cent per annum. The pace of growth was faster from 1975-76 onwards which was due to increased quantum of exports, because of a series of crop failures in Brazil - a major producer of coffee, an advantage for Indian Coffee, was exploited.

There was a major shift in the direction of tea and coffee exports from India, wherein U.S.S.R. emerged as the major market for these two items while India lost her ground in U.K. market. This may be attributed to improved political relations.

India is endowed with diversified agro-climatic conditions which makes her enjoy comparative advantage in the production and export of a variety of spices. The various items under this group are given in Appendix-IVb, of which pepper and cardamom are important ones.

Over the years, pepper production has suffered a lot because of lack of improved variety and its susceptibility to wilt disease. Therefore, there has been instability in production.

Cardamom, another important item under the spices group too faced serious snags in production. Since 'Katte' a viral disease destroyed the entire crop which lead to decreased production. Also, area under this crop fluctuated due to this disease. Hence, exports were affected by variations in production. These two factors put together account for major portion of the changes in spices export value. Thus, the variation in production resulted in declining quantum of exports. Besides, there were serious marketing malpractices which brought down the prices. As a consequence of all these factors the export value of spices registered a negative growth rate. This is in conformity with the results obtained by Kamaladevi (1964), who studied export performance of agricultural commodities during the period 1949-50 to 1960-61.

Period-II saw an appreciable growth in the spices export value. This was due to improvement in both quantity and unit prices of different spices items. Besides, various commodity boards were set up which succeeded in improving the production and marketing facilities. Therefore, the spices export value grew at a compound rate of 14.06 per cent per annum.

In order to improve the spices exports, effective implementation of the recommendation given by the research findings of Export Potential Survey is necessary (DaCosta, 1968).

There was a change in the direction of spices exports, in which the East European countries emerged as the major markets for Indian spices at the cost of the United States. If India can increase production of spices maintaining quality there is no dearth for foreign markets (like USA and the Middle East where spices consumption is increasing) and can effectively increase the export earnings from spices. Vegetables and fruits, fish and fish preparations and sugar excluding molasses are the other three items under food exports.

In both the periods, the value of vegetable and fruit exports had grown. In Period-I the compound growth

rate was 6.83 per cent while in Period-II it was 11.54 per cent.

Growth in the value of exports of this item was due to increase in both quantity of exports and unit prices of the various items in the group. This is indicated by increase in the quantum and unit value indices (Appendix IIIa & b). Increase in the unit values was more pronounced which brought home more and more foreign exchange. Since the foreign demand is elastic to income changes, sluggishness, if any, in exports of vegetables and fruits is due only to fluctuating production.

The share of India in the world vegetable and fruit market is meagre. The export potential survey conducted by Indian Institute of Foreign Trade indicated that opportunities for expanding the market are vast. The study pointed out the problems of production, storage, processing, etc. and suggested measures for improvement.

Cashew kernel is an important item in the vegetable and fruit export group. Its share in total vegetable and fruit export value ranged between 54 per cent and 84 per cent. The value of cashew exports increased in both the periods and whenever there was an increase in cashew

exports, vegetable and fruit export value too rose considerably (Table 14 and Appendix II). Similar trend was observed in a study on agricultural exports by Rao (1980).

But in the last few years of the study cashew exports suffered due to low turn out in the processing industry. Because the processing industry, whose requirements are more than domestic production, depended on the imported nuts from Kenya, Mozambique and Tanzania. Of late these countries have developed necessary infrastructure and transport facilities to carry out processing of raw nuts. Besides this there is growing competition from China. Thus, a decline in raw nut imports with fluctuating domestic production has reduced the quantum of exports.

There was a major change in the direction of vegetable and fruit exports wherein U.K. lost to U.S.S.R. and value of exports to Malaysia and Singapore had doubled.

Fish and fish preparations are a new item of exports whose share in agricultural exports was meagre in the Fifties but increased over the years and grew to prominence.

The export value of this item was of very low order, which was mainly due to low quantum of exports.

The quantum index (1958=100) was below 100 till 1965-66 whereas unit value index showed an increase. The low quantum of exports was due to low production or fish catch, which was in turn a result of lack of scientific methods and tools.

But in Period-II, the value of exports increased at a phenomenal rate which was mainly due to increase in the quantity exported. This was due to effective implementation of Fisheries Development Programme from Third Plan onwards. The results of these programmes could be observed from Annual Plan period and thereafter. The developmental efforts included incorporation of technological innovations in fishing, use of sophisticated vessels and trawlers, expansion of facilities like fishing harbours, shore facilities. These factors increased the fish catch leaving enough surplus for exports. Also, strict quality control measures were effected which increased demand for Indian fish products. As a result, the value of exports increased at a rate of 23.26 per cent per annum.

India is yet to exploit fully the long coastal lines and inland waters for fish production. In the wake of increasing demand for fish products in foreign markets where consumers are finicky about their food habits, it

would be advantageous if India can gear up fish production and export more.

Major importers of Indian fish products were mostly the developed countries like Japan, U.K. and U.S.A. Exports to Japan had risen tremendously.

Sugar (excluding molasses) is another item of food exports which has seen vicissitudes in the last three decades. The value of exports was Rs.38 lakhs in 1950-51 which increased to Rs.21.42 crores in 1964-65. The interval saw heavy fluctuation in sugar exports. But because of the very low base it recorded a compound growth rate of 33 per cent (Fig.1).

In Period-II also, there were fluctuations in both quantity and value of exports. The value of exports grew at a compound rate of 17.01 per cent per annum. The major reason for heavy fluctuation is variations in domestic production which in turn is due to adverse monsoons and dwindling area under the crop. At times sugarcane was used to produce gur instead of sugar because of the price differential.

The open competition in the international market for sugar has made export of sugar from India risky. This

is indicated by year to year changes in the direction of trade. Under these circumstances, it would be better if India can enter into bilateral agreements and increase sugar exports. Moreover, there is quota restriction under the International Sugar Agency based on the previous year's production. Hence, the fluctuating production in India has made it difficult to bargain in International Sugar Agency.

Besides, there is competition from sugarbeet which is claimed to be of superior quality thus reducing the demand for cane sugar.

The category of non-food agricultural exports include unmanufactured tobacco, raw cotton, oil cakes and fixed vegetable oils, of which the last item i.e., fixed vegetable oils, alone declined in Period-I. But in Period-II the export value of all the four items increased.

Tobacco (unmanufactured), is an important traditional item of exports. The export value of this item increased consistently during Period-I at 3.44 per cent per annum. The quantity of exports which decreased in the initial years picked up later on and contributed considerably to the increased export earnings. In Period-II, it

increased at a faster rate of 10.81 per cent per annum. The export value which was around Rs.34.85 crores increased to Rs.204.93 crores in 1981-82. The unit value which was Rs.6.29 per kg in 1967-68 increased to Rs.19.89 per kg by 1981-82.

Relative stability in export prices accompanied by rise in volume of exports during the first three plans ensured a rise in export value. Both quantum and unit value indices have shown in increasing trend (Appendix IIIa).

Eventhough export of tobacco (unmamufactured) in the last three decades increased, it did not grow to the extent it should have, because of instability in production and shifts in area under this crop. Another observation is, eventhough area under local tobacco increased, the area under Virginia Flue Cured tobacco has not increased in spite of promotional activities. Therefore, the production of the export item i.e. Virginia Flue Cured tobacco has not increased. In addition, increasing cost of curing had reduced the advantage. On the other hand, there was growing competition in the international market from China, U.S.A. and Zimbabwe.

The direction of exports of tobacco too changed

wherein exports increased to U.S.S.R. whereas to U.K. the exports decreased substantially,

India is a major producer of groundnut and occupies an important place as regards rape seed, mustard, sesamum, castor seed and linseed. India is an important exporter of oil cakes produced out of these oilseeds. During the entire period between 1950-51 and 1981-82 oil cake exports increased both in terms of quantity and value. Growth rates of export values during the two periods are a testimony for this achievement which were 75.01 per cent and 9.69 per cent during the two periods respectively.

High growth rate in the first period was mainly due to the fact that oil cake exports reached peak almost from negligible level. The value of exports was a mere ₹.5 lakh in 1950-51 which increased to ₹.34.64 crores in 1965-66.

In Period-II, quantum of exports was almost stagnant barring occasional spurts and slumps. But value had risen uninterruptedly.

The main reason for increase in export of oil cakes is the development of solvent extraction industry

and the policy measures of the government and lack of domestic demand, which made exports lucrative.

An examination of the quantum and unit value indices show that both had increased considerably during the period 1960-61 to 1974-75 (1958=100). The unit value indices (1968=100) showed an increase throughout but the quantum index increased to 203 in 1976-77 in which oil cake export value was maximum but dropped in the very next year to 97. This decline in quantum of exports led to decrease in the value of exports. The decrease in quantity of exports was mainly due to sudden fall in production. Moreover, the uptrend in exports of oil cakes is also attributed to drastic changes in direction of trade. The East European countries became the major importers of oilcakes from India while exports to Western countries declined to some extent. The new avenue had stabilized the unit prices of oil cakes.

India is a net importer of long staple raw cotton. But she produces enough short staple cotton and this is being exported. Raw cotton exports were virtually stagnant in Period-I and the growth rate was 0.01 per cent.

The export value increased in Period-II at an annual compound growth rate of 8.07 per cent. From 1967-68 to

1973-74 export value increased but it declined precipitously in 1977-78 to Rs.70 lakhs which was mainly due to very low export volume.

The decline in the value of raw cotton exports was due to decrease in the quantum of exports. Along with this, fluctuating prices made the matter worse. In addition to the production constraints the export sector is threatened by domestic demand. The export value during the Fourth Plan increased as a result of improvement in the unit values. But in the late Seventies increasing domestic demand brought down the exports.

Of late raw cotton trade is threatened with competition from synthetic substitutes which are making heavy inroads into the cotton market.

Bangaldeshi and Assam comillas are the two types of raw cotton which are exported. These are used to manufacture mattresses, surginal dressings and beddings.

Raw cotton export market of India was highly concentrated, and it was exported mostly to Japan. In the recent years some portion of exports went to U.S.S.R.

Fixed vegetable oil is the only item which registered a negative growth in Period-I, and the rate of growth was -7.56 per cent. But in Period-II it registered a compound growth rate of 11.18 per cent per annum which was due to a lower base of Rs.3.96 crores in 1967-68. The decrease in value of fixed vegetable oil exports is mainly due to sharp decline in the quantum of exports. In the wake of dwindling production of these oils which is unable to match the domestic demand, the Goverment decided to impose restriction on exports in order to check the rising prices of these edible and non-edible oils.

In Period-II, the export value uptrended mainly due to increase in the unit value of exports, the indices with 1968 as base was 95 in 1969-70 which increased steadily over the years and reached 384 by 1978-79 (Appendix-IIIb). But the quantum of exports is characterized by frequent ups and downs. The quantum index which was 43 in 1969-70 increased to 117 in 1972-73 but dropped in the next year and shot up again to 232 in 1976-77 but decreased suddenly in the next two years. This confirms that, despite the profitability, the vegetable oil exports have suffered mainly due to fluctuating oilseeds' production

and ever growing domestic demand which has led to substantial increase in imports.

Production of these oilseeds are low mainly because of lower per hectare yields in India compared to other major growing countries of these oilseed crops.

Japan was the major market for these oil exports followed by U.K. and U.S.A.

It is clear from the above discussion that agricultural exports can be divided into two groups. First group consisting of those items which have favourable production trends but exports are not increasing due to lack of foreign demand and domestic market has served as an alternative making exports a risky venture. The second group consists of those items which have favourable demand conditions but export is hindered by frequently fluctuating production and increasing domestic demand.

Another observation pertains to the direction of trade. Majority of these items have a small range of foreign markets and hence they are highly concentrated. Japan, U.K., U.S.A. and U.S.S.R. were the major buyers of Indian agricultural export goods. In many cases a

change in the direction of trade could be observed wherein East European countries were replacing the traditional markets such as U.K., U.S.A. and other European countries.

Shah (1973) and Anonymous (1985) also inferred that markets for agricultural exports from India were highly concentrated besides indicating the change in direction wherein West European and American markets were replaced by East European countries.

SUMMARY AND CONCLUSION

VI. SUMMARY AND CONCLUSIONS

Foreign trade is an important sector which plays a crucial role in development process. Trade increases world output and thus welfare of the peoples of the trading nations through better utilization of resources, by bringing about equality among trading nations through equalization of factor prices. It also helps the participating countries achieve better growth by promoting and rewarding those sectors of the economy where individual country possesses comparative advantage either in terms of labour efficiency or factor endowments.

Of course, the above is the cream of classical trade theory which was tailored based on the experiences in the presently developed countries. But this could not play a benign role as it was expected to, particularly in the context of developing countries. However, in many developing countries trade has played a pivotal role in initiating and catalysing the development process, to which India is not an exception. Vast supplies of capital goods, maintenance goods and food grains whenever necessary are the testimonies of international relations enjoyed by India. At the same time she has earned recognition in foreign markets through her exports.

An important characteristic of developing countries is that they specialise in production and export of primary products in general and agricultural commodities in particular. On the other hand, they import basic items such as wage goods, raw materials and agricultural inputs. Therefore, agricultural trade accounts for considerable share in total trade of these countries. This is true in case of India also. Considering the importance of agricultural trade, a study was undertaken with the following objectives:

i) To examine the growth of selected agricultural commodities which occupy a prime place in India's imports and exports.

ii) To study the changes, if any, in the composition of agricultural trade.

iii) To know the changes, if any, in the direction of trade in the agricultural commodities.

In case of agricultural imports, cereals and cereal preparations, fertilizers (crude and manufactured), fixed vegetable oils, vegetables and fruits, raw cotton, raw jute, dairy products, agricultural machinery and implements and tractors (other than steam) were selected for the study,

the selection was made on the basis of the relative share of each item in total value of agricultural imports each year.

Similar procedure was adopted (relative share in total value of agricultural exports) in case of agricultural exports which resulted in the selection of tea, oil cakes, sugar (excluding molasses), unmanufactured tobacco, fish and fish preparations, vegetables and fruits, spices, coffee, raw cotton and fixed vegetable oils.

The data for the present study were obtained from two sources - i) monthly statistics of Foreign Trade of India (Vol.I and Vol.II) published by the Directorate of Commercial Intelligence and Statistics, Calcutta and ii) Basic Statistics Relating to Indian Economy published by Central Statistical Organization, New Delhi, for the period 1950-51 to 1981-82.

The whole time series was divided into two periods, i.e. Period-I between 1950-51 to 1965-66 and Period-II between 1967-68 to 1981-82. The basis for division was devaluation of Indian rupee in June 1966 since a comparison of value between the two period would be erroneous.

Due to heterogenous groups and frequent changes in the form of different items of trade, exports and imports were considered in value terms. Compound growth rates for import and export items were worked out for the two periods separately using a function of the type $Y=ab^T$. Other two objectives were met using simple tabular analysis.

Agricultural imports:

In India, import sector is regulated by the Government owing to scanty foreign exchange reserves. Therefore, size of imports depend to a large extent on the availability of foreign exchange reserves. Hence, imports are allowed if and only if there is a bare necessity.

Cereal imports increased (6.16 per cent per annum) in Period-I following the decision of the Government to import cereal grains in the context of increased demand due to partition and instability in supply due to series of crop failures. Hence, India imported huge quantities of cereals and cereal preparations under PL-480 programme from U.S.A. But import value after 1965-66 recorded a negative compound growth rate (-4.38 per cent) because of increased domestic production due to effective implementation of High Yielding Variety Programme which obviated the need for import of cereal grains.

Similarly, import value of vegetables and fruits (3.65 per cent per annum) fertilizers (crude and manufactured), (18.96 per cent per annum) and dairy products (2.18 per cent per annum) registered positive growth. Increased imports of these items were resorted to to offset the demand-supply gap in the domestic market. All these items recorded highly significant growth rates in Period-II also.

Raw cotton and raw jute production within the country was adversely affected by partition. So, in the early Fifties large quantities of these two items were imported. But later on domestic production of the two items increased and hence values of import tapered off resulting in negative rate of annual compound growth (-3.75 per cent and -2.3 per cent). The same trend continued in case of raw cotton but increased domestic demand which was evident through increasing prices for jute made imports necessary and hence import value of raw jute recorded a positive compound growth rate (2.08 per cent) during the second period.

Agricultural machinery and implements, tractors i.e., (other than steam) agricultural input imports (except fertilizers) registered decline particularly in

in Period-II. This was accomplished through increased domestic production and also unsuitability of imported items under Indian conditions which led to declining imports.

The import value of fixed vegetable oils was stagnant in Period-I but it rose to prominence in Period-II. Fixed vegetable oil imports rose rapidly following increased domestic demand for both edible and non-edible oils. Rapid expansion of soaps, detergents and varnish industries have increased the demand for vegetable oils.

Thus, all these items are imported mainly to ease supply rigidities in the domestic market which are an offshoot of either increasing domestic demand or instable production front or a combination of both.

The second period witnessed radical changes in agricultural imports of India wherein cereal and cereal preparations lost prominence as import item. Similarly, values of imports of raw cotton, agricultural machinery and implements too decreased over the years, which were again due to improved domestic production. On the other [illegible], fertilizers and fixed vegetable oils which were of secondary importance grew to prominence in Period-II.

Import markets of these items were highly concentrated; U.S.A. had a lion's share throughout in total import values of cereals and cereal preparations, fixed vegetable oils, raw cotton, fertilizers, dairy products. E.E.C. was the major source of dairy product imports. Raw jute imports were obtained from Bangladesh, Nepal and Malaysia while vegetables and fruits were obtained from countries like Tanzania, Kenya, Iraq, Iran and Afghanisthan.

From the above, one can easily conclude that India's agricultural import trade is highly concentrated both in terms of commodity composition and direction. Thus, in 1950-51 cereal and cereal preparations and raw cotton imports together accounted for more than three fourth of total agricultural import value but by 1981-82 these two items together accounted for less than one fifth of total agricultural imports, paving way for a compositional change, wherein fertilizers and fixed vegetable oil imports together accounted for more than sixty per cent of total agricultural import value. The latter two items together had a meagre share of around six per cent in 1950-51.

Again a majority of these imports originated from two or three countries indicating a high degree of

concentration. U.S.A. and E.E.C. continued to be the major sources for these imports. This fact is mainly due to the fact that the main items of agricultural items come through developmental aid programmes of U.S.A. and E.E.C.

Agricultural exports:

Agricultural exports are of importance for a developing country. Limited ability to trade manufactured and semi-manufactured items add further to this importance. When it comes to financing of developmental imports and debt repayment, export earnings become crucial. In case of India too agricultural exports have come in handy to offset balance of payment crisis by earning foreign exchange.

Tea is an important item of exports from India. Eventhough the value of tea exports has registered a steady growth it has suffered greatly in the export front mainly due to (i) lack of foreign demand ii) increasing world supply which has resulted in frequent price fluctuations and (iii) increased internal demand (indicated by declining export-production ratio despite doubling of tea production). However, due to a series of coffee crop

failures in Brazil in the Seventies decade, prices of coffee in the world market rose steeply. As a consequence demand for tea, a substitute for coffee increased improving the unit price of tea. Therefore tea export value registered a significant growth rate.

Coffee exports assumed importance in the Indian export basket, mainly due to rapid increase in production, restriction of world supply to demand by International Coffee Council. This improved the unit values. Also India's quota was frequently enhanced whenever coffee crops in Brazil and Columbia failed. At the same time, India entered bilateral agreements with U.S.S.R. and other Warsaw pact countries which boosted the coffee export earnings.

Vegetables and fruits exports which include cashew kernels have grown considerably in the last thirty years. This is due both to increased quantum and unit prices of exports. However, it can be comfortably inferred that despite being endowed with diverse soil and climatic factors which can be used to grow a host of vegetables and fruits, India's share in world market is meagre. Since this item has high income elasticities, India can earn more and more foreign exchange by increasing exportable surpluses.

Fish and fish preparations is one item which has recorded a laudable growth which was an outcome of developmental activities being taken up and effective adoption of technological breakthroughs. But the fish catch at present is lower than the potential and there is a great scope for exploiting the long sea coast which India possesses. Again by making improvements in quality and packaging, unit value realisations could be increased.

Sugar exports suffered in the Fifties due to cut-throat competition in the international markets. After the formation of International Sugar Agency this has been reduced to some extent. But due to frequent fluctuations in production India's quota is often subjected to changes. Therefore, there were year to year variations in export earnings from sugar. Moreover domestic market for sugar has competed with the sugar exports and therefore Government had to subsidize sugar exports. Thus, India could not make headways in international market for sugar.

Spices export value registered a negative rate of growth in the First period which was due to low quantum of exports. This was the consequence of disorganised production, high incidence of pests and diseases and marketing malpractices. These inconsistencies were removed

to a larger extent by formation of marketing boards and commodity boards. Moreover unit prices also improved over the years and East European countries served as a stable market for these items. Therefore, value of exports registered a positive rate of growth. But there is growing competition from countries like Sarawak and Guatemala for major spices such as cardamom and pepper.

Oil cake export value was negligible in the early Fifties but development of solvent extraction industries and suitable policy measures have made this an item of prominence in the export sector. Both quantum and value of exports increased over the years. Rapid increase in value of this item was also due to stable foreign market constituted by Warsaw Pact countries.

In the last three decades, unmanufactured tobacco has registered a continuous growth despite complaints about quality. If India can increase area under Virginia Flue Cured - a variety of tobacco which is in great demand in the world market, export earnings can be increased. Qualitative improvements in tobacco can diversify the market and increase unit values. These measures have to be taken up in order to stand the competition from U.S.A. and Zimbabwe.

India exports short staple raw cotton to Japan. Indian exports are hampered by fluctuating production. This is reflected in terms of year to year variations in export value. Instead of exporting raw cotton, it is better if India can manufacture mattresses, beddings etc. from raw cotton and export, this can generate employment and increase export earnings.

Fixed vegetable oil was an important item of exports in the early Fifties whose value of exports declined over the years resulting in a negative rate of growth in the first period. But it recorded a positive growth rate due to increased unit price despite decreasing quantities exported in the second period.

A major change was observed in the direction of agricultural exports wherein India lost her hold in traditional markets such as U.S.A., U.K. and other West European countries but gained strong holds in East European markets and Japan. Another observation was that India's export market is highly concentrated wherein a handful of countries account for more than half of the total value of agricultural exports. In more than one case U.S.S.R. became a major market replacing either U.S.A. or U.K. Earlier tea and tobacco exports were directed mainly to U.K. but

as the Seventies decade advanced exports to U.S.S.R. increased at an increasing rate relegating U.K. to second position. The same trend was observed in cases of spices, vegetables and fruits including cashewnuts, raw cotton, oil cakes and fixed vegetable oils. Of all the items sugar exports had least market diversity, wherein the direction changed each year indicating absence of long term bilateral agreements.

From the study, it can be concluded that there is a change in the commodity composition of agricultural exports from India due to differential rates of growth. Thus, in 1950-51 tea, spices and fixed vegetable oil exports together accounted for almost three fourth of total value of agricultural exports which dropped to around one-third in 1981-82. On the other hand, vegetables and fruits, fish and fish preparations and unmanufactured tobacco accounted for one-sixth of total value of agricultural exports in 1950-51 which rose to one half by 1981-82. This fact indicates that agricultural exports from India are characterized by a very high degree of concentration. Again some export items (tea, coffee) could not grow at a faster rate due to lack of international demand while the rest were hampered by unstable domestic production and increasing domestic demand.

In addition, markets for Indian agricultural exports were limited and also she was losing her stand in hard currency markets like U.S.A. and West European countries.

Thus, in order to increase foreign exchange earnings from agricultural exports, there is need for diversifying export markets, improving quality, building up exportable surpluses through increased production and decreasing production costs. Moreover, there is need for improving the image of Indian agricultural products through advertisement and propaganda and similar export promotion programme in the international markets.

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APPENDICES

Appendix-1 : Agricultural imports

Value: Rs.Lakhs

[illegible]	Cereal and cereal preparations (Value)	[illegible] (Value)	Vegetables and fruits (Value)	Raw cotton (Value)	Raw jute (Value)	Fixed vegetable oils (Value)	Fertilizer crude and manufactured (Value)	Agril. machinery and implements (Value)	Tractors other than steam (Value)	Agricultural imports
1950-51	9921	508	951	10077	7	334	1235	700	520	25724
51-52	23131	641	1390	13899	6767	618	635	1058	453	49962
52-53	15551	413	1374	7667	1648	368	203	435	269	28540
53-54	7252	941	1684	5276	1432	663	437	126	372	19343
54-55	6846	907	1646	5846	1300	587	179	85	386	19242
55-56	1768	1225	1903	5733	1932	656	224	79	400	15598
56-57	816	1314	1946	5149	865	523	470	89	662	13735
57-58	6061	1113	2018	4071	679	489	732	75	533	17960
58-59	18122	631	1751	2827	265	333	1073	78	284	27243
59-60	14954	762	1769	4123	346	413	1869	55	349	26549
60-61	18138	624	2038	8174	754	366	1213	100	576	33980
61-62	11785	955	1460	6265	528	542	1496	86	491	25632
62-63	14426	800	1805	5691	304	396	3024	108	469	29449
63-64	17961	939	1800	4898	185	420	3764	672	526	33460
64-65	28214	1036	2589	5808	733	480	3286	554	713	45290
65-66	30911	720	2291	4620	560	883	4482	999	527	47346
66-67	65098	2265	3019	5647	2057	1127	10296	1293	553	93159
67-68	51820	1423	3925	8301	177	1635	14863	1369	918	86516
68-69	33662	1493	4639	9018	930	968	15182	1355	712	69659
69-70	26098	1203	4364	8278	108	1723	7592	2176	1434	55282
70-71	21301	1061	4320	9884	14	2308	7348	705	2079	51521
71-72	13121	2081	3784	11338	0.04	2817	9177	927	1633	47720,4
72-73	8079	2133	5330	9088	113	1550	10744	1002	702	41646
73-74	47315	1874	4848	5205	1222	5694	18413	1077	626	89808
74-75	76376	2488	6094	2740	375	1230	48616	298	348	142890
75-76	134279	2734	5344	2822	333	1550	49837	515	471	201849
76-77	87856	3924	4346	12949	676	10061	21664	319	1696	147054
77-78	12249	4490	5152	19886	0.22	71161	29871	336	435	149544
78-79	8694	6222	7808	2643	154	53709	41185	1363	95	131263
79-80	10582	9513	6210	7	46	53707	43095	271	677	129376
80-81	10040	9598	6531	2	202	68290	73135	300	184	177820
81-82	34716	16900	8518	1182	243	62528	59227	622	61	192016

Appendix II. Agricultural Exports

Value: Rs.Lakhs

Tea Qnty. Mil.kgs.	Tea Value	Coffee Qnty. lakh kgs.	Coffee Value	Vegetables and fruits Value	Qnty. lakh kgs	Value	Fish and fish preparations Value	Sugar excluding molasses (Value)	Spices Value	Pepper Qnty. lakh kgs	Pepper Value	Cardamom Qnty. lakh kgs	Cardamom Value	Chillies	Tobacco unmanufactured Qnty. lakh kgs	Tobacco unmanufactured Value	Raw cotton Value	Oilcakes Value	Fixed vegetable oils Value	Total agril. exports Value
209	8042	27	135	1276	258	855	246	38	2551	154	2040	6	148	81	465	1411	494	5	2526	17775.
194	9394	8	55	1668	216	905	328	65	3064	312	2322	7	164	327	510	1614	1368	1	2361	20619
193	8088	22	139	1771	283	1298	387	440	2124	163	1606	10	166	219	360	1302	1933	2	2655	19794
213	10219	28	146	1386	270	1099	430	11	1695	130	1287	9	137	145	317	1102	940	8	489	17140
206	14672	103	765	1330	345	1070	449	44	1168	140	699	10	163	108	385	1177	1013	148	2002	23863
163	10914	28	150	1529	314	1293	376	96	1067	133	471	11	218	145	403	1065	2969	530	3435	23377.
231	14515	95	669	1798	315	1454	511	266	910	151	340	10	288	2	432	1248	1346	167	1558	24261
193	11365	123	673	1916	365	1516	458	114	800	137	286	13	272	87	409	1463	903	276	1059	20416
217	12974	156	788	2195	410	1584	572	419	801	118	247	18	359	49	462	1474	1662	1065	640	23653
215	12924	152	633	2167	384	1600	583	171	1446	207	816	17	331	45	393	1353	1007	2100	1481	25215
199	12360	197	922	2598	436	1891	462	328	1661	172	85	20	367	176	457	1461	867	1430	854	24265.
207	12226	297	903	2551	418	1917	388	1538	1751	216	807	23	356	219	444	1405	1432	1732	582	25801
221	12982	204	761	2673	485	1927	401	1805	1378	207	653	23	272	95	602	1799	1218	3110	1515	28436
210	12338	232	831	3011	515	2143	571	2710	1602	185	575	22	319	281	642	2109	1209	3538	1993	30744
212	12465	310	1342	3674	558	2903	678	2142	1673	173	675	19	284	251	790	2438	1055	3977	705	31243
197	11484	265	1294	3481	513	2740	680	1185	2309	263	1110	14	439	249	570	1958	972	3464	409	28114.
190	15841	258	1584	5903	500	4552	1753	1612	2914	218	1266	16	830	280	374	2152	1183	5002	233	39271
[illegible]	18022	340	1818	5228	510	4303	1841	1595	2724	251	1310	15	712	210	551	3485	1475	4547	336	42070
201	15651	287	1795	7642	637	6093	2270	1012	2514	190	974	14	687	227	527	3316	1110	4447	1171	42354
174	12450	324	1962	7558	606	5742	3083	860	3444	223	1619	12	902	91	543	3271	1469	4147	435	39628
199	14825	319	2510	6502	490	5207	3054	2927	3881	179	1525	18	1134	109	480	3140	1641	5542	703	45515.
209	15631	354	2113	7035	600	6133	3897	3084	3618	192	1483	22	820	192	570	4225	1664	4015	716	46918
193	14729	504	3151	8116	660	6882	5043	1375	2913	200	1431	15	695	35	940	6107	2153	7477	2453	54537
[illegible]	14503	527	4601	9252	523	7443	8924	4278	5507	316	2954	19	1121	41	782	6641	3242	[illegible]	3165	73787
[illegible]	23719	493	5130	13602	650	11814	6500	33961	6141	263	3448	17	1342	32	750	8036	1705	[illegible]	3365	113225
212	25682	594	6655	13480	536	9613	12718	47520	7152	242	3731	20	1966	333	743	9313	4137	[illegible]	3562	137580.
243	29287	475	11405	16062	516	10599	18025	14951	7292	205	3824	9	1305	444	801	9662	2699	22331	4858	137656
156	55532	558	19109	19676	403	14954	17851	1858	13702	247	4050	30	4593	512	158	1537	70	13327	2068	145426
195	34045	654	14405	14333	268	8023	22382	13562	14806	153	2907	32	5609	1954	641	9783	1601	11579	1358	135508
204	36794	619	16331	19162	378	11810	24943	14900	14936	209	3352	30	4383	773	665	10225	7510	12773	4150	161635
[illegible]	[illegible]	832	21424	21371	327	14015	21983	3387	11136	253	3654	25	3516	535	640	12441	16488	12500	1470	156787.
	[illegible]	612	[illegible]	28560		19190	28034	6572	9876	206	2728	31	3177	353	1030	20493	3632	[illegible]	1740	[illegible]

Appendix -III(a): Quantum Index and Unit value index of exports

(With 1958 =100)

Index	60-61	61-62	62-63	63-64	64-65	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75
Quantum index															
I. Food	97	109	121	122	128	113	114	112	114	112	124	126	142	133	145
(a) Fish and fish preparation	79	74	58	80	94	73	109	109	132	161	177	178	198	263	228
(b) Vegetables and fruits	114	111	126	131	134	123	118	118	146	144	128	133	148	120	144
(c) Coffee	131	187	128	150	197	178	151	204	194	220	206	229	314	334	299
(d) Tea and mate	87	90	96	91	92	86	90	89	87	83	86	91	84	83	98
(e) Spices	126	159	141	149	135	148	135	131	124	110	125	168	115	165	132
(f) Oilseed cakes	178	206	353	386	518	335	321	296	336	268	346	293	383	474	327
II. Beverages and tobacco	85	82	119	122	158	119	64	106	97	98	90	115	193	157	149
III. Raw cotton other than linters	50	85	81	81	68	54	52	68	45	55	50	48	58	82	29
IV. Animal and veg. oils and fats	124	86	183	272	76	40	16	25	81	-	-	-	-	-	-
Unit value index															
I. Food	106	102	101	106	106	111	167	168	166	161	173	171	191	262	364
(a) Fish and fish preparation	101	91	121	123	125	155	282	283	291	331	298	401	468	573	492
(b) Vegetables and fruits	108	109	101	107	130	128	219	206	235	231	240	250	260	356	444
(c) Coffee	77	67	83	77	95	101	133	124	129	124	170	134	146	192	239
(d) Tea and mate	104	100	99	90	99	98	143	149	131	110	126	126	128	128	168
(e) Spices	149	125	111	120	141	177	257	236	229	355	352	244	287	376	526
(f) Oilseed cakes	108	113	121	123	103	139	203	206	198	208	215	184	262	483	393
II. Beverages and tobacco	114	112	97	109	100	112	147	207	214	208	222	240	204	277	339
III. Raw cotton other than linters	109	111	99	98	102	126	165	154	182	192	204	242	264	275	356
IV. Animal and veg. oils and fats	96	92	91	91	118	138	217	203	178	-	-	-	-	-	-

Source: DGCI & S - Calcutta, and obtained from Statistical Abstracts of India published by CSO, New Delhi.

Appendix - 3(b): Quantum index and Unit value index of selected agricultural exports

(1968 = 100)

Index	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
Quantum index										
I. Food	94	112		128	121	139	163	162	131	159
(a) Fish and fish preparation	125	134		164	220	189	253	270	280	292
(b) Vegetables and fruits	98	86		105	84	100	96	100	75	66
(c) Coffee	113	111		171	175	163	205	155	192	215
(d) Tea and mate	86	99		96	95	112	106	122	110	86
(e) Spices	93	109		104	142	120	131	101	165	187
(f) Oilseed cakes	81	104		114	141	98	111	203	97	100
II. Beverages and tobacco.										
III. Raw cotton										
IV. Animal and veg.oils & fats	43	45		117	86	195	141	232	70	39
Unit value index										
I. Food	101	101	100	112	151	202	209	214	324	254
(a) Fish and fish preparations	111	103	136	148	179	155	224	298	276	346
(b) Vegetables and fruits	99	104	104	107	148	186	189	218	362	301
(c) Coffee	97	126	103	107	146	175	181	411	554	372
(d) Tea and mate	92	96	96	98	97	128	142	154	322	284
(e) Spices	148	141	99	111	154	204	216	287	330	315
(f) Oil seed cakes	104	108	93	132	244	198	157	223	278	235
II. Beverages and tobacco										
III. Raw cotton	97	97	111	139	215	269	234	274	202	202
IV. Animal and veg. oils & fats	95	92	124	92	103	191	182	182	296	384

Source: DGCI & S - Calcutta, and obtained from Statistical Abstracts of India published by CSO, New Delhi.

APPENDIX IV(a)-(i)

Year 1971-72

Items under different import groups.

1) Cereal and cereal preparations:

a) Wheat and wheat meslin, flour of wheat

b) Rice in husk, rice husked, rice broken, rice parboiled and rice other than parboiled.

c) Barley unmilled d) Maize unmilled, maize meal and other cereals.

2) Dairy products:

Milk and cream, skimmed milk evaporated, whole milk evaporated, milk and cream dry, whole milk dry, milk cream dry, skimmed milk dry, melted butter, cheese and curd.

3) Vegetables and fruits:

Oranges, grapes, cashewnuts, almonds, pistachionut.

Fresh fruits such as mango, pomegranate

Dried fruits such as dates, figs, raisins, plums and apricots.

Preserved and processed fruits.

Vegetables such as potato, garlic, asparagus, mushrooms and other preserved vegetables.

4) Raw cotton: group includes cotton other than sweepings, linters etc.,

5) Raw jute: excluding Bimlipatam and Mesta.

6) Fixed vegetable oils: Soyabean oil, olive oil, linseed oil, palm oil and tung oil.

7) Fertilizers crude and manufactured

Crude - Natural sodium nitrate and rock phosphate.

Manufactured: Nitrogenous - Ammonium nitrate
- Ammonium sulphate
- Urea

Phosphatic - Other than natural ones

Potassic - Potassium chloride
Potassium sulphate
Ammonium sulphate

8) a) Agricultural machinery and implements:

Disc harrows, disc ploughs, tractor ploughs and harvesting equipments.

Dairy equipments such as cream separator and milking machines and spare parts.

b) Tractors other than steam - Garden tractor
Track type
Wheeled type

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APPENDIX IV(a) ...(ii)

1981-82

1) Cereals and cereal preparations:

Wheat - durum wheat, wheat meslin

Rice - in husk, husked, semi-wholly milled, broken rice, rice other than parboiled and basmati rice.

Barley unmilled, maize corn unmilled, oats unmilled.

2) Dairy products:

Milk and cream fresh, milk and cream preserved, butter milk powder, whole milk powder, skimmed milk powder, butter milk, skimmed milk, butter fresh, butter oil, butter melted.

3) Vegetables and fruits:

Oranges, mandarins and other citrus hybrids, banana, fresh grapes, raisins, figs, cashewnuts, almonds, walnuts, apricots, plums, dates, mangoes, pomegranates etc. Preserved fruits such as juices and jams. Vegetables like potato, onion, garlic, asparagus and mushrooms.

4) Raw cotton: group includes cotton other than sweepings, linters etc.,

5) Raw jute: excluding Bimlipatam and Mesta.

6) Fixed vegetable oils:

Soyabean oil, cotton seed oil, groundnut oil, olive oil, linseed oil and palm oil.

7) Fertilizer - crude and manufactured:

Crude - Natural phosphates, unground phosphates.

Manufactured - Ammonium nitrate, Ammonium sulphate, urea - nitrogeneus

Super phosphate - phosphatic fertilizers

Potassium chloride - pure and commercial) Potassic
Potassium sulphate) fertilizer

8) a. Agricultural machinery and implements:

Disc ploughs, scarifiers, horticultural implements, harvesting, threshing etc. like lawnmowers, combined harvesters, threshers, winnowing and cleaning machines, crushers for wine making and poultry equipments.

b. Tractors - wheeled and spare parts.

APPENDIX IV(b) ...(1)

1971-72

Items under different export groups.

1) Tea - black leaf in bulk, black dust in bulk, packet upto 20 kgs and tea green.

2) Coffee - Arabica plantations - A, B and other grades
- Arabica cherry
- Robusta parchment
- Robusta cherry

3) Vegetables and fruits:

Oranges, lemons, citrus, grape, banana, apples, cashew kernels - whole and broken, coconut, almonds, walnut, figs, apricots, plums and peach, berries, dates, mangoes, pine apples, tamarind, pomogranates, mango slices dried, raisins, mango juice etc., potato, tomato, cabbage, cauliflowers, onions, garlic tapioca, etc.,

4) Spices: Chillies, pepper, cardamom, cinnamon, cassia, mace, Aniseed, coriander seed, cumin, fennel seed, celery seed, curry powder, fenugreek seed, saffron, tejpat, turmeric etc.,

5) Fish and fish preparations:

Fish fresh and chilled,
Fish wet and salted, dried and smoked, prawn and shrimp, lobsters, preserved fish and canned prawn.

6) Sugar - centrifugal sugar, cane jaggery, cane sugar
- candy and refined

7) Unmanufactured tobacco - for beedi manufacturing,
- chewing
- sun cured natural
- V.F.C.
- V.S.C.
- for cigarette manufacturing
- Hookah tobacco

8) Oilcakes: Copra, linseed, sesamum,

Solvent extracted	Groundnut oilcake
"	linseed oilcake
"	cottonseed
"	cotton seed undecorticated
"	kardi oilcakes

9) Raw cotton - Bengal deshi and Assam comillas, cotton corded etc.

10) Fixed vegetable, oils:

Groundnut oil, rape colza oil, linseed oil, palm oil, coconut oil, castor oil, cashew shell oil, sesamum oil.

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APPENDIX IV(b) ...(ii)

1981-82

1) Tea : Black leaf in bulk
Black dust bulk,
Tea black packets i)- 20 kgs.
Tea green packets i) more than 1 kg
ii) less than 1 kg

2) Coffee - Arabica plantations - A, B and other grades
- Arabica cherry
- Robusta parchment
- Robusta cherry

3) Vegetables and fruits:

Oranges, citrus fruits, grapes, banana, apple, raisins, coconut dessicated, cashew kernel - broken and whole, almond, walnut kernel, apricot, plums, peaches, sapota, pineapple, dates, mango fresh,

mango slice dried, tamarind fresh and dried, guava, pomegranate, preserved fruits, juice, jams etc.,

Potato - seed and vegetable, garlic, onions, cabbage, cauliflowers, cucumber, lettuce, oliver, plantain, tapioca, sugarbeet, asparagus, mushroom, dehydrated onion and garlic, pickles, tomato etc.

4) Spices: Chillies, pepper, cardamom, vanilla, cassia, cinnamoon, clove, nutmegs, aniseed, badiam seed, coriander seed, cumin, fennel seed, ginger, celery, fenugreek, saffron, tejpat, turmeric and others.

5) Fish and fish preparations:

Fish - fresh and dried, frozen,
Fish fillets - chilled and frozen, smoked
Cod dried -
Prawn and shrimp - fresh and dried,
Lobsters - fresh
Cuttle fish - fresh etc.

6) Sugar - centrifugal sugar, cane jaggery, cane sugar refined.

7) Unmanufactured tobacco -V.F.C.
- beedi tobacco
- chewing tobacco
- sun cured virginia
- burley tobacco

8) Oilcakes - Solvent extracted soyabean oilcake
" Groundnut oilcake
" Cotton seed cilcake,
" Sunflower oilcake,
" rape and colza oil cake,
" coconut oilcake

9) Raw cotton - Bengaldeshi and Assam comillas, cotton carded etc.

10) Fixed vegetable oils:

Castor oil,
Linseed oil,
Coconut oil,
Rape colza oil,
Soyabean oil,
Cashewshell oil etc.
Kukum oil,
Sal oil,
Chaulmoogra oil.

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