POLICY PAPER 6

IMPORT LIBERALISATION AND INDIAN AGRICULTURE
THE CHALLENGE AND STRATEGY

Ramesh Chand

राष्ट्रीय कृषि आर्थिकी एवं नीति अनुसंधान केन्द्र
NATIONAL CENTRE FOR AGRICULTURAL ECONOMICS AND POLICY RESEARCH

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FOREWORD

The conflict between India and the US and some other developed countries over removal of quantitative restrictions on imports, which started in the beginning of this year, has caused lot of anxiety to Indian public. Out of about 2700 items which are put under some sort of quantitative restrictions, 800 are agricultural commodities. It has been a painful task for the country which has followed restrictive trade regime in the past to prepare itself to dismantle all kinds of physical barriers on imports in a short span of time. But being member of WTO and signatory to Uruguay round of GATT, a choice made with larger interest in mind, we are committed and under obligation to replace non tariff measures by reasonable level of tariffs.

There are apprehensions that liberalisation of agricultural imports would hit our producers and impair the growth prospects of farm sector. Krishi Bhavan officials are busy in discussing plans to counter the imports and to safeguard Indian farmers against such perceived threats. To aid this process, the Indian Council of Agricultural Research asked this Centre to prepare a paper to explore the implications of import liberalisation and to propose suitable strategy. Accordingly, an issues paper on the subject was prepared which was discussed in a workshop involving concerned experts, academicians, officials and industry representatives on September 10, 1997. This policy paper is an outcome of this effort. We are grateful to the workshop participants for their valuable contributions which formed rich source for this paper. The paper also provides useful information about the items covered under QRs, tariff rates, and other statistics relevant to trade.

Dr. Ramesh Chand was assisted by Dr. Anjani Kumar in arranging literature and sources for preparing this paper. Ms. Umeeta Ahuja prepared the computerscript in a short time. I am thankful to them for their efforts. I hope the paper would be useful in developing a proper perspective on import liberalisation.

November, 1997
New Delhi

Dayanatha Jha
Director

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MAIN CONCLUSIONS AND RECOMMENDATIONS

- *In the current conflict, regarding removal of Quantitative Restrictions on imports, between India and some developed countries, the WTO rules seem favourable to the latter countries because our BOP position does not lend support to seek waiver of QRs. It is very clear that while the period can be somewhat negotiated, the restrictions on imports have ultimately to be removed.*

- *The impact of QR removal on domestic prices would, to a large extent, depend on reduction in aggregate support to agriculture in various countries as stipulated under GATT. As the Uruguay round seeks to boost agricultural trade via substantial reduction in protectionism, prices in member countries are expected to move closer to international prices.*

- *Imports to India would not be attractive in the case of rice, tea, sunflower oil and cotton. In the case of wheat and maize, situation in some years can turn favourable for imports depending upon domestic and international supply position. There is a strong possibility of rise in imports of sugar and edible oils after removal of QRs which would exert downward pressure on the domestic prices.*

- *The fear that import liberalisation would increase volatility of domestic prices needs to be investigated. There are situations in which trading with International market can help in reducing price volatility in domestic market. The impact of variations in world prices on Indian prices would depend on the policies the country adopts to check dumping when there is glut at international level and speculative buying when there are shortages.*

- *Removal of QRs on trade would promote both, exports as well as imports. The basic idea of trade liberalisation is to shift production to locations where resource endowments are more favourable. This would mean that a country need not meet all its requirement from domestic production of those crop/livestock produce in which it does not have a comparative advantage. Impact of liberalisation on net trade of agricultural commodities would depend upon the growth rate in output of different commodities in the country.*

- *Trade liberalisation would result in increased commercialisation of agriculture sector and diversification of crop mix. Export orientation of production would shift crop pattern in favour of crops which require higher doses of agro chemicals. This has implications for environment pollution and underscores the need to evolve IPM strategy and bio-pesticides.*

- *Agricultural producers and consumers would be affected by trade liberalisation through changes in prices, changes in efficiency of agricultural production, changes in subsidy benefit to farmers and subsidy burden on tax payers. Empirical evidence points out that trade liberalisation would improve social welfare, particularly of rural and urban poor.*

- *Removal of QRs on imports would pave the way for entry of private trade in import business which at present is almost monopolised through canalization by state agencies. These state agencies are not efficient and lack spontaneity to respond to the consumers needs. Experience shows that the state agencies often fail to get the signal on soaring domestic prices on time and augment the supply with considerable delay. This causes lot of hardships to the domestic consumers. On the other hand, private trade is prompt to respond to changes in the market forces. Removal of restrictions on agricultural imports by private trade would promote competition and would benefit the consumers.*

- *While agricultural exports have been liberalised to some extent during the last 5 years, restrictions on imports have remained more or less unchanged. This seems to have hit domestic consumers both ways; rise in domestic prices due to increase in share of exports in production and denial of access to low priced farm imports.*

- *Liberalisation of trade can affect environment and sustainability through shift in agricultural production from places where it is less sustainable to places where it is more sustainable and by inducing changes in crop pattern and by promoting competition, commercialisation and intensification. The best way to check damage to natural resources and environment due to trade is to devise and implement mechanisms to internalise environmental and natural resources' cost so that these costs are paid by actual consumers rather than the future generations.*

- *Flow of imports would depend mainly on two interrelated factors; one, price difference net of tariff and c.i.f. and two, difference in cost of production between exporting and importing nations. When cost of production is lower in exporting country it can profitably go for exports even if the price in importing market is not higher than the price in exporting country. Thus, to guard against imports the following condition need to be fulfilled:* ***Product price and cost of production in our market should not be higher than those in exporting country.***

- *Removal of QRs on imports would lead to some imports even if domestic prices are somewhat lower compared to the prices in exporting country. The section of our society in high income bracket is non- sensitive to price but they prefer high quality, well packaged, hygienic and reliable food. MNCs can win over consumers in this group by selling well advertised branded produce.*

- *The best protection against imports is that the growth in supply keeps pace or is higher than the growth in domestic*

demand and efficiency of production improves continuously. If our agricultural output fails to increase at 3.5 per cent or higher rate per annum, then imports would become our compulsion.

- *Out of various options for realising required growth in output, productivity enhancement is the best one. This would require concerted and simultaneous efforts on several fronts like (a) increase in use of modern inputs like fertiliser and plant protection chemicals, (b) expansion in area under high yielding varieties and improved seeds and (c) provision of institutional credit for purchase of modern inputs, etc.*

- *Development of irrigation must continue receiving priority even as improved water management and conservation strategies are pursued with vigour. Public sector irrigation systems are breaking down for want of resources for their maintenance. There is need to mobilise and allocate more resources to keep these systems in good conditions.*

- *The decrease in land currently available for cultivation due to growing urbanisation, industrialisation and residential requirements must be compensated for. There is some possibility of area expansion under agriculture by increasing crop intensity, and by reclaiming some of the barren, degraded and waste lands. The latter requires huge investments which are beyond the reach of average Indian farmer. Some mechanism has to be evolved to enable industry participation in making direct investments in agriculture particularly in unfavourable settings.*

- *Raising productivity in already agriculturally advanced region would involve more cost in terms of inputs compared to under-developed regions. Since the domestic supply would be facing competition from imports, the emphasis should be on increase in productivity in a cost effective manner. The twin goals of increase in productivity and efficiency can be achieved by harnessing potential of underdeveloped regions and through development of specialisation pockets. The best*

suited enterprises should be identified for different agro-ecological settings and this should be supported by physical as well as institutional infrastructure. The focus must shift to area specific enterprises as has been the case of dairying in Gujarat, rice-wheat in Punjab, apple in sub temperate West Himalayan region, grapes in Nasik region of Maharashtra and mangoes in Rayalseema region of Andhra Pradesh.

- *Our producers are at a disadvantage in respect of infrastructure compared to their counterparts in developed world, from where we fear imports. Development of infrastructure is essential to improve efficiency in production and marketing. Capital outlay for infrastructure development for agricultural sector has been on a decline during the last 10-15 years in almost all the states. This has adverse impact not only on long term growth but also on production efficiency.*

- *Import liberalisation would throw formidable challenge to compete with international technologies. Facing this challenge would require vigorous efforts in domestic R&D. Since private sector in India hardly plays a role in the area of agricultural technology generation, public sector institutions need to be strengthened further.*

- *Our farmers have advantage in terms of low wage rates while the producers in developed world enjoy considerable advantage of scale economy. If we want our agriculture to become competitive with rest of the world we must go for modernisation of this sector with improved technology. This would require private investments but a large proportion of our farmers in bottom category are resource poor and can't afford this. The very size of such farms discourages mechanisation and use of modern equipments which are essential to increase efficiency. The time has come when something has to be done to put ceiling on the bottom size of holding.*

- *Importers would enjoy advantage over domestic producers if reforms for internal liberalisation of agriculture sector are not implemented. The government controls and intervention need to be reduced to encourage greater private sector participation in marketing, processing, and distribution.*

- *Several items covered under QRs in the long list of nearly 800 agricultural items are inconsequential as far as their imports and international trade are concerned. It would make no material difference to prune the list and make immediate unilateral announcement to take unimportant items out of QRs. This would help in improving our image about liberalisation as required under the GATT.*

- *The current obsession to remain self sufficient in all agricultural commodities must be rationalised. This can not be beneficial in the liberalised economic environment as no country can have comparative advantage in producing all items. The strategy should be to identify the items in which we have edge over our competitors or in which we want to acquire this advantage, and then aggressively promote production of such items. In the liberalised environment there could be some decline in real prices of some agricultural commodities but this would be more than compensated by price rise in exportables elsewhere.*

- *The fact that prices of most of agricultural commodities in our country are lower or almost at par with international prices should not make us complacent. The price advantage is only marginal in most of the commodities and any slack in supply growth can reverse the situation. Agricultural output must grow at more than 3 per cent annually to keep a check on imports.*

- *Specific strategy and action plan for important agricultural items is proposed as follows:*

Commodities	*Strategy*
1. Wheat, non basmati rice, course cereals, sugar, dairy products and milk	*Plan for self sufficiency, discourage imports through tariffs, boost productivity of rice and wheat in low productivity states. Moderate tariffs would protect domestic producers.*
2. Basmati rice, fine rice, cotton, tobacco, tea	*Promote export aggressively. Removal of QRs not going to affect domestic producers.*
3. Coffee, rubber, spices, condiments and medicinal plants having micro niches	*Need for long term production strategy and institutional support. Capable to remain export competitive. Low tariffs would suffice.*
4. Onion, potato, mangoes, grapes, banana, fruits and floriculture	*Enjoy strong advantage for exports. Removal of QRs would not affect. Reduction in tariffs on imports not likely to hamper production and farm incomes. Export needs to be pushed aggressively.*
5. Oilseeds: *a) Groundnut, soyabean*	*Removal of QRs would facilitate regular supply to industry which would bring revenue through export of oilcakes and oilmeals. Productivity growth essential in the case of soyabean to protect domestic producers. High tariffs need to be retained.*
b) Rapeseed/mustard, palm	*Protection through selective high tariffs need to be retained for short to medium term to protect domestic producers.*
6. Pulses	*Deficit likely to continue. Advantage of off season price rise generally goes to middlemen. Removal of QRs would stabilise prices which show violent fluctuations.*

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INTRODUCTION

India is signatory to the Uruguay round of General Agreement on Trade and Tariff (1994) and is one of the original members of WTO. This requires the country to adjust its trade and other policies as envisaged in the GATT accord, which also covers agriculture sector now. The agreement on agriculture provides a frame-work for the long term reforms of agricultural trade and domestic policies to move towards the market orientation of agricultural trade (see Annex Table 1). The obligations and disciplines incorporated in the agreement on agriculture relate to four aspects, namely:

1. Agreement on market access
2. Agreement on domestic support
3. Agreement on export competition / subsidy
4. Agreement on sanitary and phytosanitary measures.

In the area of market access the member countries are under legal obligation to: (i) replace non-tariff barriers by tariffs that provide substantially the same level of protection and (ii) reduce tariffs resulting from tariffication process as well as other tariffs on agricultural product. ***As per the first commitment, all quantitative restrictions like quotas and bans on imports and exports are to be dismantled and replaced by reasonable level of duties/tariffs.*** Quantitative restrictions at present apply to about 2700 items out of which 800 are agricultural commodities; a brief list of these items is given in the *Annexure I.*

The tariffs are required to be reduced by an average 36 percent in the case of developed world and 24 percent in the case of developing countries. The reductions are required to be undertaken over six years in the case of developed countries and over 10 years in the case of developing countries.

Current conflict

As per the GATT provisions, developing countries having balance of payment (BOP) difficulties are given a relatively longer breathing period to adjust their polices on removal of quantitative restrictions (QRs) - in 10 years i.e. by 2004. Therefore, such countries enjoy waiver on removal of QRs subject to periodic review of their BOP position and, India has also been enjoying this waiver on grounds of BOP difficulty. The trouble began in January last (1997) when USA, supported by some other developed countries, contended that as per IMF, India was no more suffering from BOP problem and, therefore, instead of seeking waiver, the country should come out with a plan to phase out QRs on imports.

The fact is that as a result of the economic reforms initiated in 1991, India has been able to increase its foreign exchange reserves substantially, on the basis of which IMF has recommended that India, since 1995, is not having difficulty in meeting its BOP obligations. India's stand on this has been that the sources of accumulation of foreign exchange reserves are of transitory nature and their sustainability is debatable. Therefore, India should be allowed to enjoy waiver to remove quantitative restrictions on imports. But this was not been accepted by the developed countries like the US and EU and they demanded dismantling of all physical barriers on imports in a short period.

India initially did not agree to phase out QRs on trade in a shorter period but then, under persistent pressure, offered to phase out QRs in 7 years period rather than 10 years. This has not been accepted by the other party which insisted on removal of QRs in a short span of three years using 1st April 1997 as the reference date. Several rounds of negotiations between India and the developed countries failed to reach a consensus in the matter, and the US and EU moved the Dispute Settlement Panel of the WTO in July 1997 to find a solution, while efforts to resolve the tangle through negotiations also continued. Recently, some pact with EU and Australia has been reached to remove quantitative restrictions in three phases of 3 years, 2 years and 1 year, conceding their demand for removal of QRs on many items of their export

interest in the first three years i.e. by April 2000. However, the tangle with USA, our biggest trade partner, could not be resolved through mutual consultations till now; and, World Trade Organisation, on insistence from USA, has set up Dispute Settlement Panel on November 18, 1997 to resolve the knotty problem.

Given the ground rules of WTO to arrive at decision in such matters, it is most likely that decision of the Dispute Settlement Panel would go against India. In that event India would be forced to remove QRs with immediate effect or face sanctions from the USA and some other developed countries with whom mutual agreement would not be reached. Reckoning the time for appeal and dispute settlement, the consequences would not be delayed beyond 1998. It is very clear that while the period can be somewhat negotiated the restrictions on imports have ultimately to be removed.

Given this background, the paper focuses on the following aspects:

a) What would be the implications of removal of QRs on agricultural imports on India's agriculture sector?
b) What are the circumstances that would lead to imports after removal of QRs ?
c) What strategy and policy the country should follow to minimise the adverse impact of QR removal on its agriculture sector?

These are elaborated in subsequent chapters.

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IMPLICATIONS OF REMOVAL OF QRs

It is very difficult to predict accurately the impact of liberalisation of agricultural imports on agriculture sector and other segments of the economy. More so because in the post GATT period there are going to be significant changes in input prices, cost of production and output prices in different countries as they adjust their policies to meet the new obligations. However, some assessment about the likely impact has to be made to develop appropriate set of policies to deal with the emerging situation. This assessment can be made based on quantitative measures like NPC, EPC, DRC; knowledge about agricultural production and consumption scenario in the world and in the competing countries; and some vision about future shape of things in India as well as in the rest of the world.

Impact on domestic prices

The impact on domestic prices would, to a large extent, depend on reduction in aggregate measure of support to agriculture stipulated under GATT. As the Uruguay round seeks to boost agricultural trade via substantial reduction in protectionism, prices in member countries are expected to move closer to international prices. This would lead to rise in prices which are below international level and fall in prices where they are above international prices.

A comparison of domestic prices with international prices for selected commodities is attempted in Table 1. Since the international prices for most of the commodities have peaked during 1996, prices during 1994 and 1995 are also reported in the Table for a meaningful comparison.

Table 1
Comparison of National and International Agricultural Commodity Prices

Price US $ per tonne

S.No.	Commodity		1994	1995	1996
1.	WHEAT				
	National	Mexican			157.5
	International	Argentina, Trigo Pan, F.O.B	128.0	167.0	190.0
		Us, No. 2 Hard Red Winter (QRD) F.O.B. Gulf	151.0	170.0	208.0
2.	MAIZE				
	National				132.7
	International	Argentina, C.I.F. Rotterdam	143.6	177.4	221.8
		US, No. 3 yellow, C.I.F. North Sea Ports	125.2	144.6	180.8
3.	RICE				
	National	Coarse Common			200.5
	International	Thailand, White 5% Broken, F.O.B. Bangkok	358.0	322.0	338.0
4.	SUGAR				
	National				14.72
	International	F.O.B. Caribbean Ports, Bulk Basis(I.S.A.)	11.99	13.28	11.96
5.	SOYABEAN MEAL				
	National				260.0
	International	Hamburg, 44/45 %, F.O.B. Ex-Mill	209.0	211.0	275.0
6.	COFFEE (US Cents per Pound)				
	National	Arabicas			144.8
		Robustas			85.7
	International	Colombian Mild Arabicas, Ex-Dock N.Y. (I.C.A.)	157.3	158.3	131.2
		Brazilian and other Arabicas, Ex-Dock N.Y. (I.C.A.)	143.2	145.9	119.8
		Robustas, Ex-Dock N.Y.	119.7	126.8	82.7
7.	TEA				
	National				1376.3
	International	London Auction Prices(All Tea)	1821.7	1633.3	1776.5
8.	SOYABEAN				
	National	Dewas Black			270.0
		Haldwani Yellow			310.0
	International	US No. 2 yellow, C.I.F. Rotterdam	252.0	259.0	305.0

Table contd....

S.No.	Commodity		1994	1995	1996
9.	SOYABEAN OIL				
	National				922.5
	International	Any Origin, Crude Oil, Dutch F.O.B, Ex-Mill	626.0	625.0	552.0
10.	SUNFLOWER OIL				
	National				337.7
	International	Any Origin, Crude Oil, Dutch F.O.B, Ex-Mill	636.0	693.0	576.0
11.	GROUNDNUT OIL				
	National				1157.1
	International	Any Origin, C.I.F. Rotterdam	1023.0	991.0	897.0
12.	COPRA				
	National				873.5
	International	Philippines/Indonesia, Bulk, C.I.F. European Port	417.0	439.0	489.0
13.	COCONUT OIL				
	National				1331.0
	International	Philippines/Indonesia, Bulk, C.I.F. Rotterdam	608.0	670.0	752.0
14.	COTTON				
	National	Long Staple			514.0
		Medium Staple			469.0
		Short Staple			332.0
	International	Long Staple- Egyptian Super			4900.0
		Medium Staple- Memphis			1958.0
		Short Staple- Pakistan			1672.0

Source: Commodity Price Bulletin, UNCTAD. (Received from Economic Division, Ministry of Agriculture, GOI, New Delhi).

It emerges from prices' data that imports to India would not be attractive in the case of rice, tea, sunflower oil and cotton. For wheat and maize the situation in some years can turn favourable for imports depending upon domestic and international supply position. There is a strong possibility of rise in imports of sugar and edible oils after removal of QRs which would exert downward pressure on domestic prices of these commodities.

Price volatility

Another important aspect relating to prices is their volatility. Studies show that world prices have been more volatile than Indian prices (Nayyar and Sen 1994). Based on this, it is inferred that dismantling trade barriers on imports would increase volatility of Indian prices and farm incomes, and that majority of small and marginal farmers would not be able to withstand such price shocks. This conclusion has been widely accepted without any attempt to examine its validity. There are three issues involved in this. One, are international prices really more volatile than the inherent volatility in domestic prices in India? Second, is it axiomatic that imports from more volatile market would impart price instability to the importing country? Third, does the volatility in global prices affect instability in Indian prices or is it vice versa?

A comparison of instability in domestic and global output of selected crops indicates that domestic production is much more volatile than the global production (Table 2) which implies that price instability, because of supply side factors, is much higher in India compared to global market. However, the government intervenes frequently to keep check on sharp fluctuations in prices in the domestic economy and it is due to this intervention that observed instability in prices of agricultural commodities in the country turns out to be lower than what it would otherwise be. It is reasonable to infer that, left to the internal market forces, domestic prices would turn out to be much more volatile than what they have been. The observed instability in prices in the domestic market is lower also because of the reason that through imports and exports some instability is passed on to the international market. In fact, trade with global market is an important instrument of reducing volatility in domestic markets.

The impact of freeing of imports on domestic price volatility would depend upon a number of factors. The foremost among these is incidence of dumping. This can occur when there is bumper harvest in some country or at global level, or when some big dealers (MNCs in agricultural trade) offload their inventories. There is a provision in GATT to use anti - dumping measures if

the produce is offered for sale at a price lower than the normal price in the domestic market of exporting country. Therefore, the extent of impact of variations in world prices on Indian prices would depend on the domestic policies to check: (1) dumping, when there is glut at international level and (2) speculative buying, when there are shortages.

Table 2
Instability Index of Production, 1980-1993.
Unit: Annual percent deviation from trend

CROP	India	World
Wheat	7.48	5.03
Rice	11.99	2.52
Sugarcane	10.32	4.62
Cotton	18.37	11.25
Groundnut	24.93	8.61
Tea	4.86	3.45

Second, the impact on price volatility in domestic market would depend upon the correlation between domestic and global production. Suppose in a year international price of some commodity is at normal level but its output in India is below normal. In this situation Indian price would be above normal. Import in this situation would stabilise Indian price but raise international price when a big country like India goes for (large) import. Similarly, in the reverse situation (global prices at normal level and production in India above normal) India would go for export to stabilise domestic price which would put downward pressure on international price. In such situations India would pass on some of the price volatility to international market. Thus, there are situations in which trading with international market can help in reducing price volatility in domestic market, and in doing so, country of big size like India imparts price volatility to the international market.

Impact on export and import volume and composition

Removal of QRs on trade is expected to promote both the exports as well as imports. The basic idea of trade liberalisation is to shift production to locations where resource endowments are more favourable. This would mean that a country need not meet its requirement from domestic production of those crop/livestock products in which it does not have a comparative advantage. Impact of liberalisation on net trade of agricultural commodities would depend upon the growth rate in output of different commodities in the country.

Crop pattern and land use

Opening up agriculture sector to international competition can effect crop pattern and land use in several ways. It would result in increased commercialisation of agriculture sector and diversification of crop mix which would affect land use. Commercialisation enhances the perception about opportunity cost of land that can be brought under agricultural uses. This would lead to agricultural intensification and might result in reduction in degraded land, barren land and fallow land, as noted in the case of Punjab (Ramesh Chand 1996). On the other hand, export orientation of production would shift crop pattern in favour of crops which require significantly higher doses of agro chemicals. This has implications for environment pollution (Ramesh Chand and Birthal 1997) and underscores the need to evolve IPM strategy and bio - pesticides as the use of organic chemicals in crops production act as a deterrent on demand side.

Impact on producers, consumers and net social welfare

Agricultural producers and consumers would be affected by trade liberalisation through changes in prices, changes in efficiency of agricultural production, changes in subsidy benefit to farmers and subsidy burden on tax payers. Results of a study using CGE framework indicate that agriculture and trade liberalisation would improve social welfare, particularly of rural and urban poor

(Parikh *et al* 1995). This study further reveals that retaining of moderate tariffs reduces the GDP gains and welfare impact.

Removal of QRs on imports would pave the way for entry of private trade in import business which at present is almost monopolised through canalization by state agencies. These state agencies are not efficient and lack spontaneity to respond to the consumers needs. The experience shows that the state agencies often fail to get the signal on soaring domestic prices on time and augment the supply with considerable delay. This causes lot of hardships to the domestic consumers. On the other hand, private trade is prompt to respond to changes in the market forces but the profit motive is very strong. The removal of restrictions on agricultural imports by private trade would promote competition and would benefit the consumers.

Impact on human nutrition

Quite a few scholars have analysed impact of trade liberalisation on human nutrition resulting from export promotion, but very less attention has been paid to the impact due to import liberalisation. Some calculations taking into account nutritional requirement and projected population and farm output show that even at 3 percent growth in output, undernutrition would continue to afflict roughly half the population in year 2000 AD and there may not be much by way of exportable surplus (EPW, August 27, 1994). On the other hand, a working group on foodgrains set up by the Ministry of Agriculture projects availability of high level of exportable surplus of foodgrains with adequate nutrition for the domestic population. If the prediction about domestic production being below the requirement for adequate nutrition level is correct then import liberalisation of foodgrains to address the problem of undernutrition desirable.

Sustaining food security

Lot of attention has been paid to the impact of trade on food security wnich is an important concern for every nation. Studies on impact of trade liberalisation on food security have focused on

impact of export orientation of agriculture. The view emerging from these studies is that liberalisation of agricultural exports would shift crop pattern towards high value crops and result in diversion of foodgrains to livestock feed which would adversely affect food security of vulnerable sections (Patnaik 1996). Researchers have not paid adequate attention to analyse the tradeoff between export of high value crops/varieties and import of low value food crops. While agricultural exports have been liberalised to some extent during the last 5 years, restrictions on imports have remained more or less unchanged. This seems to have hit domestic consumers both ways; rise in domestic prices due to increase in share of exports in production and denial of access to relatively low priced farm imports.

Recourse to agricultural imports has been a common and frequent practice whenever domestic availability falls short of requirement but so far these imports have been canalised through public (government/semi government) agencies. Because of the inefficiencies referred to earlier, public sector agencies have often failed to arrange timely and adequate import supplies to protect the consumers against price rise due to natural or manipulated scarcities. Secondly, in recent years, several instances of corruption in the imports involving public agencies have been reported which ultimately affect consumers either due to drain on the state exchequer or due to passing on of those charges to prices. Removal of QRs on imports could be beneficial to consumers and safeguard food security in the event of shortages in domestic production.

Productive capacity of agriculture

There is a fear that removal of QRs on the imports would lead to dumping and transfer of excess production by exporting countries which would impart high instability in farm income of domestic producers. This can adversely affect input use and private farm investment and productive capacity of agriculture sector. The experience of Latin America is widely quoted in this context where, under liberalisation, per capita GDP between 1980 and 1990 is reported to have declined by 9 percent (Patnaik 1996

p. 2430). On the other hand, there are some countries which have achieved high growth rate in output through economic liberalisation.

Fears are also expressed that liberalisation of seed imports may increase our reliance on foreign suppliers and use of such seeds may lead to outbreak of diseases and pests. Secondly, seed industry in the country is in infancy stage and opening seed import at this stage would be injurious to the growth of domestic seed industry. Thirdly, seed being the basic input, it can be used to direct use of other inputs to the liking and benefit of foreign seed companies. The best way to check popularity of foreign seeds is through strengthening domestic agricultural research and seed distribution system. The seed industry in the country needs some radical changes. Since the public agencies have a limited capacity to cater to the growing demand for seeds the farmers are turning to private agencies to meet their seed requirements. Since the private seed industry is not well established and competitive there are incidence of fleecing of farmers by some greedy firms by sale of spurious seeds. This causes loss not only in terms of seed cost but also the loss in terms of other inputs, labour and crop income. It would be desirable to promote competition and encourage reputed business houses to enter into the seed business, which can be held accountable for supply of non standardised seed.

Environment and sustainability

Liberalisation of trade can affect environment and sustainability through shift in agricultural production from places where it is less sustainable to places where it is more sustainable and by inducing changes in crop pattern and by promoting competition, commercialisation and intensification. The best way to check damage to natural resources and environment due to trade is to devise and implement mechanisms to internalise environmental and natural resources' cost so that these costs are paid by actual consumers rather than the future generations.

4

FACTORS LEADING TO IMPORTS

Flow of imports would depend mainly on two inter-related factors; one, price difference net of tariff and c.i.f. and two, difference in cost of production between exporting and importing nations. When cost of production is lower in exporting country it can profitably go for exports even if the price in importing market is not higher than the price in exporting country. This type of practice is quite common in the case of industrial products wherein sellers charge different prices in different markets depending on the paying capacity of consumers. Thus, to guard against imports the following condition need to be fulfilled:

Product price as well as cost of production in our market should not be higher than those in exporting country.

Removal of QRs on imports would lead to some imports even if domestic prices are somewhat lower compared to the prices in exporting country. The section of our society in high income bracket is non sensitive to price but they prefer high quality, well packaged, hygienic and reliable food. MNCs can win over consumers in this group by selling well advertised, branded and attractively packaged produce.

Removal of QRs should not be misconstrued as leading to totally free trade - the country would have the option to regulate imports through tariffs (see *Annexure II* for the existing tariff rates). The second check on large scale imports influx is through correction in exchange rate.

5

STRATEGY

Import of various commodities after removal of QRs would depend mainly on the price difference and difference in production cost between the importing market and the exporting country. Thus, the best protection against imports is to maintain the domestic prices and cost of production at a level lower than the potential exporting country. This can be achieved only if growth in supply keeps pace or is higher than growth in domestic demand and, efficiency of production improves continuously. Since the domestic demand for agricultural goods is expected to witness moderate to high growth, on account of rise in population and per capita income, and also because our existing consumption levels are inadequate by any reckoning, our domestic supply must grow at a reasonably high rate. If our agricultural output would not increase at 3.5 or higher rate then imports would become our compulsion. Therefore, the strategy to keep a check on imports should focus on achieving the required growth rate in farm output.

Output growth

Growth in output can take place through either of the three routes namely (i) growth in productivity, (ii) area expansion and (iii) shift in crop pattern from low value to high value crops or enterprises. Out of these three, growth in productivity is the best route for output growth. Our agricultural productivity at present is deplorably low compared to other countries (see Annex Table 2) and there is considerable scope to raise crop and livestock productivity. This would require concerted and simultaneous efforts on several fronts like (a) increase in use of modern inputs like fertiliser and plant protection chemicals, (b) expansion in area under high yielding varieties and improved seeds, (c) provision of institutional credit for purchase of modern inputs etc. and (d) improvements in crop and animal germ plasm.

As productivity levels under irrigated conditions are significantly higher compared to unirrigated conditions, and more than 60 per cent of cultivated area is rainfed, development of irrigation must continue receiving priority even as improved water management and conservation strategies are pursued with vigour. Public sector irrigation systems are breaking down for want of resources for their maintenance. There is need to mobilise and allocate more resources to keep these systems in good condition.

There would be some decrease in land currently available for cultivation due to growing urbanisation, industrialisation and residential requirements. This loss must be compensated for. There is possibility of area expansion under agriculture by increasing crop intensity, and by reclaiming some of barren, degraded wastelands. The latter requires investments which are beyond the reach of average Indian farmer. Some mechanism needs to be evolved to enable industry participation in making direct investments in agriculture sector particularly in unfavourable settings.

Area specific specialisations

There are large regional variations in productivity within the country. Raising productivity in already agriculturally advanced regions would involve more cost in terms of inputs compared to underdeveloped regions as the developed regions are at a higher level on the production frontier. Since the domestic supply would be facing competition from imports, the emphasis should be on increase in productivity in a cost effective manner. This, in turn, would call for improvement in production efficiency. The twin goal of increase in productivity and efficiency can be achieved by harnessing potential of underdeveloped regions and through development of specialisation pockets. The best suited enterprises should be identified for different agro-ecological settings and these should be supported by physical as well as institutional infrastructure. The focus must shift to area specific enterprises as has been the case of dairying in Gujarat, rice-wheat in Punjab, apple in sub-temperate West Himalayan region, grapes in Nasik region of Maharashtra, mangoes in Rayalseema region of Andhra

Pradesh. The advantages of this approach are (a) it is useful in reaping advantages of scale economy and (b) it is easy and cost effective to develop infrastructure to boost one or two commodities rather than several commodities.

Infrastructure and R&D

Our producers are at a disadvantage in respect of infrastructure compared to their counterparts in developed world from where we fear imports. Development of infrastructure is essential to improve efficiency in production and marketing. Capital outlay on infrastructure development for agriculture sector at all India level has been moving on a declining trend since mid 1970s (Figure 1a). The statewise picture reveals that there has been a sharp decline in public sector capital outlay in the states of West Bengal, Tamil Nadu, Punjab and Uttar Pradesh during the period 1974-75 to 1991-92. The trend has not been healthy in Gujarat, Haryana, Karnataka, Kerala, Rajasthan, Madhya Pradesh and Orissa (see Figures 1a to 1c). Public sector capital outlay on agriculture in Bihar kept on rising till 1987-88 after which there has been a steep fall year after year. Capital outlay for infrastructure development by Union government also followed decline during the past two decades (vide Figure 1a).

Decline in capital outlay on agriculture means reduced allocation for infrastructure development for the sector. This is a depressing situation for agriculture sector which is plagued by poor infrastructure like roads, markets, irrigation, electrification etc. If the situation is not rectified it would have severe adverse impact on long term growth and production efficiency, which might force the country to go for agricultural imports in the medium to long run period to meet its requirements.

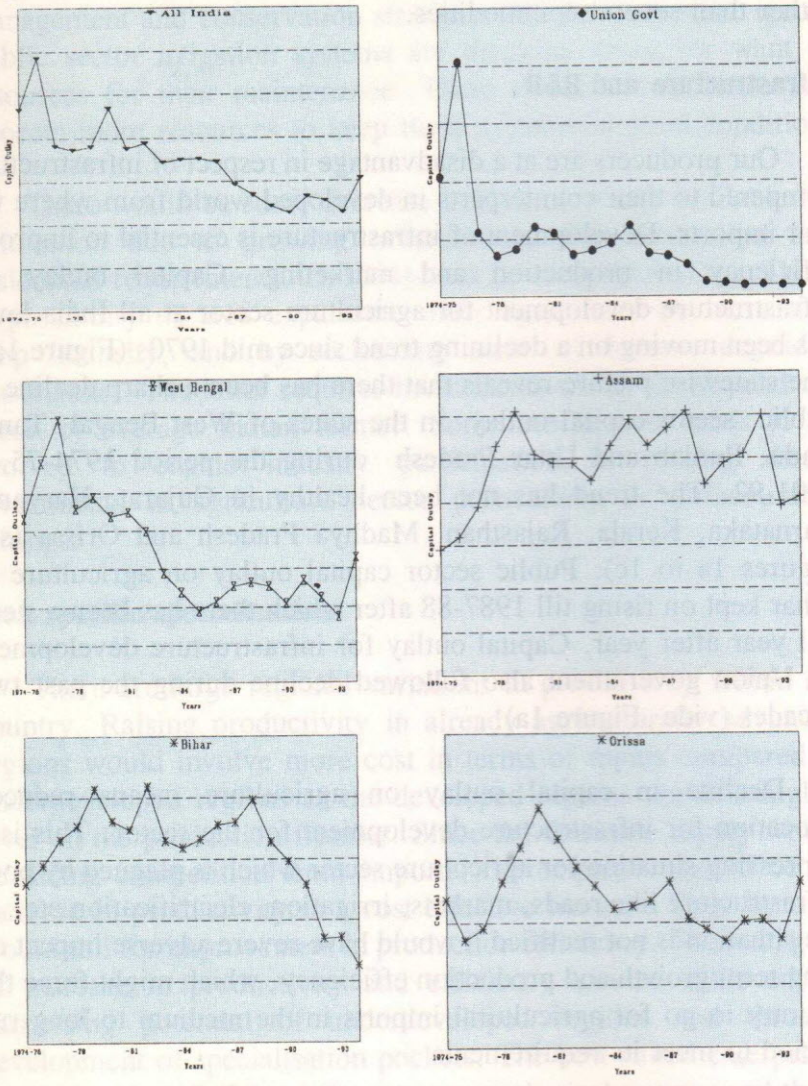

Figure 1a: Trend in Capital Outlay on Agriculture at 1980-81 Prices

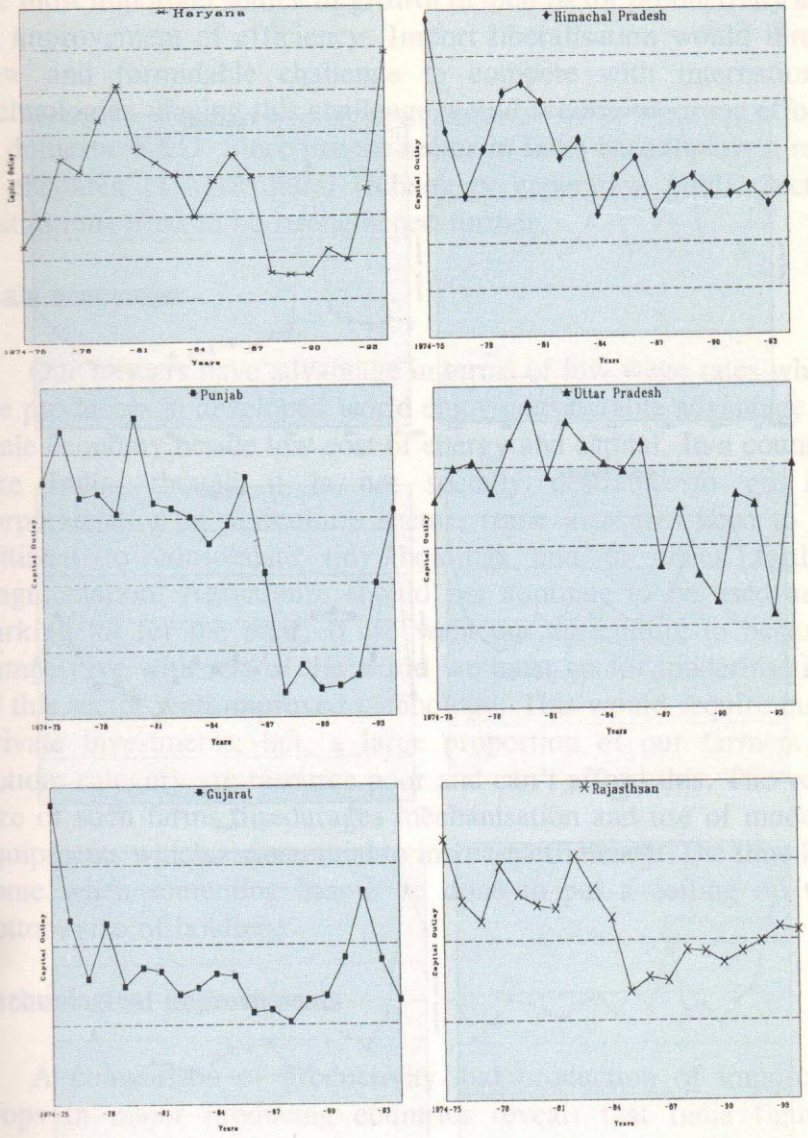

Figure 1b: Trend in Capital Outlay on Agriculture at 1980-81 Prices

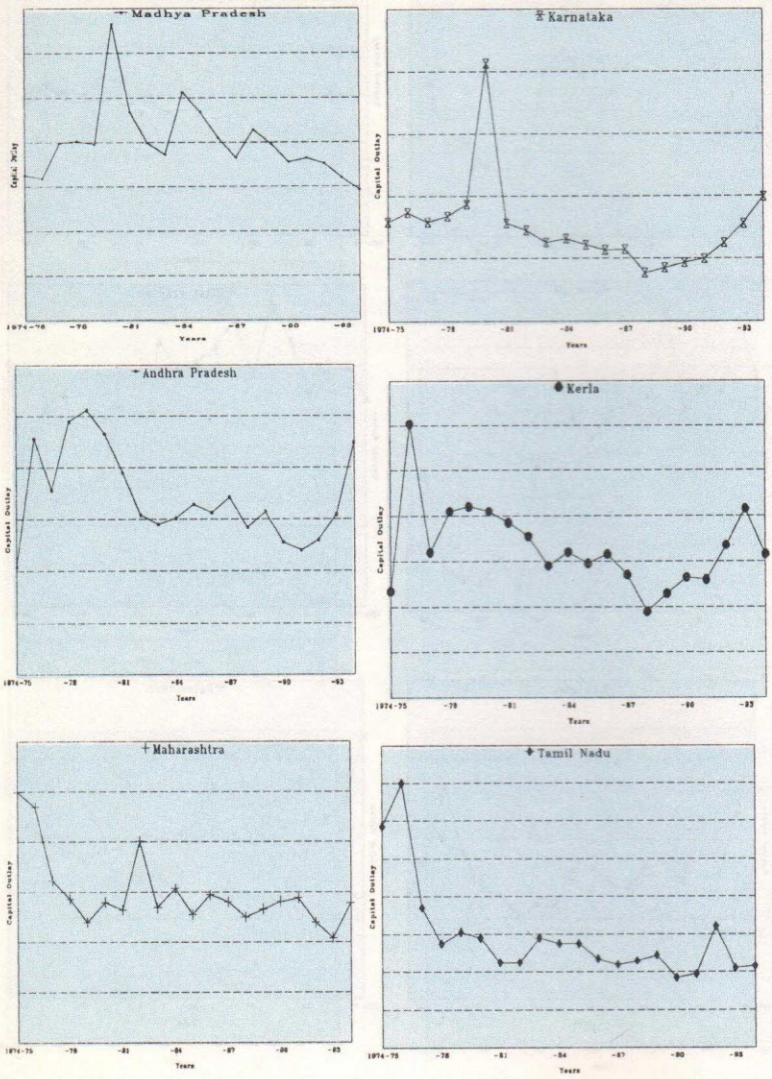

Figure 1c: Trend in Capital Outlay on Agriculture at 1980-81 Prices

Beside physical infrastructure, technological improvement is the most important source of growth in total factor productivity and in improvement of efficiency. Import liberalisation would throw new and formidable challenge to compete with international technologies. Facing this challenge would require vigorous efforts in domestic R&D. Since private sector in India hardly plays a role in the area of agricultural technology generation public sector institutions need to be strengthened further.

Scale economies

Our farmers have advantage in terms of low wage rates while the producers in developed world enjoy considerable advantage of scale economy beside low cost of energy and capital. In a country like India, though it is not socially desirable to go for corporatisation of agriculture sector, some measures need to be initiated to consolidate tiny holdings and to check further fragmentation. Agriculture should not continue to be used as a parking lot for the poor. If we want our agriculture to become competitive with rest of the world we must go for modernisation of this sector with improved technology. This would require huge private investments; but, a large proportion of our farmers in bottom category are resource poor and can't afford this. The very size of such farms discourages mechanisation and use of modern equipments which are essential to increase efficiency. The time has come when something has to be done to put a ceiling on the bottom size of holding.

Technological improvements

A comparison of productivity and production of important crops in major producing countries reveals that India figures among top 2-3 producers merely because of its large size (area) and not due to efficiency in production (see Annex Table 2). When we look at India's ranking in respect of productivity the picture looks more depressing. The country's position varies from 35 to 98 for the 12 major crops. There is a wide gap between average yield in World and India for almost all the crops, which makes Indian

agriculture globally non-competitive for exports and attractive for imports.

Average world yield is higher compared to India by 27 per cent for paddy, 249 per cent for maize, 41 per cent for pulses and 61 per cent in the case of rapeseed. Similarly, India's cotton yield is only half of the world average (vide Annex Table 2). Sugarcane is the only major crop for which India's yield is higher than the world average but recovery level is quite low.

It is pertinent to point out that in the case of crops like cotton and pulses, which are important items of India's agricultural imports, the yield levels in major importing countries are markedly higher than India. Similarly, in the case of groundnut and soyabean, which are important from edible oil import point of view, all major exporting countries namely USA, Brazil, China and Argentina reap significantly higher output per unit of land compared to India (vide Annex Table 2). The yield analysis indicates that to face the challenge due to import liberalisation India must pay adequate attention to raise productivity level. The best way to achieve this seems to be improvement in technology by promoting use of improved seeds and evolving new cultivars, and higher use of yield enhancing inputs. The country should also import suitable crop technologies to counter the export advantage of other countries.

Domestic liberalisation

Importers would enjoy advantage over domestic producers if reforms for internal liberalisation of agriculture sector are not implemented. The government controls and intervention needs to be reduced to encourage greater private sector participation in marketing, processing and distribution. The government operations on produce need to be limited to the small fraction required for food security. Removal of formal as well as informal restrictions on movement of farm produce within the country, from one state to another state, would ensure better returns to the producers and also improve marketing efficiency. Domestic liberalisation is also important in the wake of deteriorating efficiency of public agencies

and as an alternative to encourage private sector participation in marketing of farm produce. The public sector organisations are reported to have top heavy administration and low operational efficiency (Johl 1989) which has been rising over the years. An indication of the same can be had from the fact that the economic cost of wheat handled by the FCI was 22 per cent higher than the procurement price in early 1970s which increased to 30 per cent by 1977-78 and further escalated to 54 per cent by 1985-86 (Sidhu 1991) without any commensurate increase in the services added to the produce.

Domestic production and imports

The data for the latest 5 years show that pulses constitute the biggest, about 1/5th, share of agricultural imports followed by sugar (17%) , cashew nuts(16%), and vegetable oils (14%). The other important items of imports are fruits and nuts, wheat, cereal preparations and cotton raw and waste (Table 3).

The commodities imported by India can be broadly grouped under two categories: (1) those which are imported on a more or less regular basis, because our domestic production is chronically short. of domestic demand. This includes crops like pulses, vegetable oils, cashew nuts, fruits and nuts and cereal preparations and (2) those which are imported only in some years while in other years their import is almost nil viz. commodities like sugar, wheat, rice and cotton (see Table 3). The strategy to reduce imports of items under first category should be to augment their production capacity. The imports of items under second category results due to instability in production. This is particularly serious in the case of commodities like sugar whose import in some years goes as high as 2/5th of the total agricultural imports. Almost similar is the case with cotton. Reliance on imports can be considerably reduced by improving stability in production of such crops.

Table 3
Commodities Composition of India's Agricultural Imports
Unit: $ Million

Commodity	1990-91	1991-92	1992-93	1993-94	1994-95	5 year average	Percent share
Pulses	263.8	104.3	115.5	180.8	182.7	169.42	19.60
Sugar	5.3	0.3	0.1	0.1	715.5	144.26	16.69
Cashew nuts	73.8	109.0	129.9	153.9	215.0	136.32	15.77
Vegetables oils	179.6	101.3	57.6	53.1	194.2	117.16	13.55
Fruit & nuts	60.0	40.9	65.2	69.4	99.2	66.94	7.74
Wheat	13.5	0.0	245.2	40.1	1.5	60.06	6.95
Cereal preparation	48.5	66.3	62.9	35.0	30.2	48.58	5.62
Cotton raw & waste	0.0	0.0	74.8	5.9	161.8	48.5	5.61
Raw hides & skins	0.0	18.8	21.7	30.7	40.4	22.32	2.58
Natural rubber	42.5	12.1	16.1	17.5	7.9	19.22	2.22
Rice	21.8	4.5	25.3	17.6	2.7	14.38	1.66
Spices	0.0	0.0	0.0	24.1	17.6	8.34	0.96
Milk & cream	1.9	3.3	15.5	5.3	1.9	5.58	0.65
Oil seed	3.6	3.9	3.7	2.2	1.8	3.04	0.35
Vegetables & animals fats	0.3	0.4	0.5	0.5	0.7	0.48	0.06
Total	714.6	465.1	834.0	636.2	1673.1	864.6	100.00

Source: Foreign Trade Statistics of India, May 1996. Centre for Monitoring Indian Economy Pvt. Ltd., Mumbai.

Rationalisation of items under QRs

Several items covered under QRs in the long list of nearly 800 agricultural items (see *Annexure I*) are inconsequential as for as their imports and international trade are concerned. It would make no material difference to prune the list and make immediate unilateral announcement to take unimportant items out of QRs. This would help in scoring some point in WTO and improve our image about liberalisation as per the GATT.

Import- export tradeoff

Our response to import liberalisation should not be panicky. The current obsession to remain self sufficient in all agricultural

commodities must be rationalised. This cannot be beneficial in the liberalised economic environment as no country can have comparative advantage in producing all the items required by it. The strategy should be to identify the items in which we have an edge over our competitors or in which we want to acquire this advantage, and then aggressively promote production of such items. It needs to be borne in mind that comparative advantage is not always natural, in most of the cases it is earned.

It would be prudent to leave to market forces to determine import of some commodities. In the liberalised environment there could be some decline in real prices of some agricultural commodities but this would be more than compensated by price rise in exportable elsewhere.

Commodity specific strategy on import liberalisation

The fact that prices of most of agricultural commodities in our country are lower or almost at par with international prices should not make us complacent. The price advantage is only marginal in most of the commodities and any slack in supply growth can reverse the situation. More than 3 per cent growth in agricultural output is a must to prevent imports becoming profitable or our necessity.

Based on the emerging domestic and international production and price scenario, interest of our producers and consumers, and country's resource endowments, the crop specific strategy to face import liberalisation is suggested as follows:

Commodities	Strategy
1.Wheat, non-basmati rice, course cereals, sugar, dairy products and milk	Plan for self sufficiency, discourage imports through tariffs, boost productivity of rice and wheat in low productivity states. Moderate tariffs would protect domestic producers.
2.Basmati rice, fine rice, cotton, tobacco, tea	Promote export aggressively. Removal of QRs not going to affect domestic producers.
3.Coffee, rubber, spices, condiments and medicinal plants having micro niches	Need for long term production strategy and institutional support. Capable to remain export competitive. Low tariffs would suffice.
4.Onion, potato, mangoes, grapes, banana, fruits and floriculture	Enjoy strong advantage for exports. Removal of QRs would not affect. Reduction in tariffs on imports not likely to hamper production and farm incomes. Export needs to be pushed aggressively.
5. Oilseeds: a) Groundnut, soyabean	Removal of QRs would facilitate regular supply to industry which would bring revenue through export of oilcakes and oilmeals. Productivity growth essential in the case of soyabean to protect domestic producers. High tariffs need to be retained.
b) Rapeseed/mustard, palm	Protection through selective high tariffs need to be retained for short to medium term to protect domestic producers.
6. Pulses	Deficit likely to continue. Advantage of off season price rise generally goes to middlemen. Removal of QRs would stabilise prices which show violent fluctuations.

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Annex Table 1
Agreement on agriculture : summary of major provisions

	General	Developing Countries
Implementation period	1995-2000	1995-2004
Export subsidy reductions		
Base period	1986-90	1986-90
Expenditure (for each commodity)	36%	24%
Quantities (for each commodity)	21%	14%
Domestic support reductions		
Base period	1986-88	1986-88
Aggregate measurement of support (AMS)	20%	$13^{1}/_{3}$%
Credits starting from:	1986	1986
Exemptions	• "green and blue" box support policies • if product-specific support does not exceed 5 % of the total value of a product(or product group), this support need not be included in the AMS nor be reduced(de minimis percentage) • the same as above for non-product-specific support which does not exceed 5% of the value of total agricultural production	• "green and blue" box support policies • if product-specific support does not exceed 10 % of the total value of a product(or product group), this support need not be included in the AMS nor be reduced(de minimis percentage) • the same as above for non-product-specific support which does not exceed 10% of the value of total agricultural production
Market access		
A. Tariffs		
(a) ordinary customs duties	• reduction commitments to be implemented on the duty level as in 1986-88	• reduction commitments to be implemented on the duty level as in 1986-88
(b) Other border measures(including non-tariff barriers (NTBS))	• to be converted into ordinary bound customs duties in their tariff equivalent of the base period("tariffication")	• to be converted into ordinary bound customs duties in their tariff equivalent of the base period("tariffication"). Countries with unbound tariffs have the option to offer "ceiling bindings" not necessarily equal to the tariff equivalents of the base period NTB or the level of unbound tariffs
(c) Tariff reductions	• the resulting duties from (a) and (b) are to be reduced on average by 36 % (simple average), with a minimum of 15 % for each tariff line	• the resulting duties from (a) and (b) are to be reduced on average by 24 % (simple average), with a minimum of 10 % for each tariff line
B. Minimum access (for countries subject to "tariff equivalent" tariffication)		
Base period	1986-88	1986-88
Minimum access (for each commodity)	3% of base period consumption increasing to 5% in 2000	3% of base period consumption in 1995 increasing to 5% in 2000

Source: *World Agriculture : Towards 2010, An FAO study*, ed Nikos Alexandratos, John Wiley & Sons, 1995.

Annex Table 2
Production and productivity of selected crops in major producing countries, during 1993-1995.

Production : Thousand metric ton
Yield : Kilogram/hectare

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries[@]
				Production	Yield	
Paddy						
	World	537445	3662			
	China	181733	5900	1	7	Thailand
	India	120944	2880	2	51	U.S.A.
	Indonesia	48227	4339	3	28	Italy
	Bangladesh	25656	2594	4	65	China
	Vietnam	23455	3408	5	40	Pakistan
	Myanmar	18355	3110	6	47	
	Thailand	20229	2290	7	68	
	Japan	12465	5822	8	8	
	Brazil	10614	2411	9	63	
	Philippines	10325	2767	10	58	
	U.S.A.	7980	6378	11	5	
	Korea Rep.	6653	6067	12	6	
	Pakistan	5625	2641	13	54	
	Egypt	4522	7936	14	3	
	Nepal	3109	2196	15	73	
Wheat						
	World	544258	2475			
	China	102636	3495	1	27	U.S.A.
	India	59783	2394	2	43	France
	U.S.A.	62628	2502	3	44	Canada
	France	30226	6554	4	7	Australia
	Russian Fed.	35265	1491	5	94	Argentina
	Canada	25262	2198	6	49	
	Turkey	18848	1929	7	67	
	German	16688	7147	8	6	
	Pakistan	16124	1974	9	57	
	Australia	14002	1588	10	75	
	Ukraine	17320	3281	11	33	
	U.K.	596	5774	12	3	
	Iran	10918	1521	13	79	
	Poland	8190	3370	14	25	
	Argentina	9874	2046	15	64	

Table contd....

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries@
				Production	Yield	
Maize						
	World	519946	3846			
	U.S.A.	201628	7380	1	16	U.S.A.
	China	105001	4857	2	24	France
	Brazil	32938	2496	3	56	China
	Mexico	17516	2307	4	67	Argentina
	France	13523	7886	5	13	
	Argentina	10886	4376	6	28	
	Romania	9084	2991	7	46	
	India	9590	1583	8	98	
	Italy	7932	8562	9	7	
	Indonesia	7184	2221	10	63	
	Nigeria	4921	1259	11	115	
	Egypt	5363	6323	12	18	
	Yugoslavia	4575	3310	13	40	
	South Africa	6312	2152	14	114	
	Hungry	4467	3963	15	29	
Pulses						
	World	56888	827			
	India	14050	588	1	126	
	China	5860	1289	2	39	
	Brazil	2947	559	3	129	
	France	3464	5091	4	1	
	Australia	2014	1042	5	41	
	Canada	1876	1693	6	24	
	Nigeria	1732	810	7	79	
	Turkey	1816	948	8	66	
	U.S.A.	1520	1778	9	18	
	Ukraine	2351	1989	10	33	
	Russian Fed.	2333	1206	11	81	
	Mexico	1458	693	12	111	
	Myanamar	1062	648	13	112	
	Ethiopia	978	890	14	71	
	Pakistan	653	437	15	139	

Table contd....

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries
				Production	Yield	
Sugarcane						
	World	1089670	61398			
	Brazil	279333	65607	1	39	Cuba
	India	238193	66683	2	35	France
	China	68784	59636	3	45	Brazil
	Thailand	42749	47434	4	51	Germany
	Pakistan	43218	45305	5	61	China
	Mexico	41519	73085	6	26	
	Cuba	39667	36001	7	74	
	Australia	31719	89642	8	13	
	Indonesia	31181	76169	9	23	
	Colombia	29833	92165	10	12	
	U.S.A.	28115	73845	11	25	
	Philippines	28267	73809	12	38	
	South Africa	14570	46734	13	49	
	Argentina	15667	61973	14	50	
	Egypt	13411	108582	15	2	
Rapeseed						
	World	30367	1348			
	China	8069	1340	1	33	
	Canada	6398	1273	2	36	
	India	5357	840	3	40	
	German	2891	2778	4	8	
	France	2039	2899	5	4	
	Poland	909	2006	6	16	
	U.K.	1238	2737	7	7	
	Czech. Rep.	497	2419	8	10	
	Australia	423	1418	9	28	
	Denmark	396	2361	10	15	
	U.S.A.	192	1476	11	32	
	Bangladesh	241	714	12	44	
	Pakistan	211	742	13	43	
	Sweden	258	2032	14	19	
	Austria	181	2487	15	18	

Table contd....

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries
				Production	Yield	
Groundnut						
	World	27603	1253			
	China	9525	2579	1	14	China
	India	7707	919	2	70	U.S.A.
	U.S.A.	1681	2588	3	15	Argentina
	Nigeria	1426	985	4	71	Netherlands
	Indonesia	958	1453	5	31	
	Senegal	712	865	6	62	
	Sudan	591	719	7	80	
	Zaire	577	793	8	82	
	Myanmar	455	942	9	49	
	Argentina	324	2484	10	19	
	Vietnam	286	1214	11	38	
	Mali	187	834	12	72	
	Chad	201	698	13	84	
	Burkina Faso	204	874	14	73	
	Ghana	151	1589	15	22	
Soyabean						
	World	125710	2029			
	U.S.A.	59330	2441	1	11	U.S.A.
	Brazil	24356	2161	2	16	Brazil
	China	14951	1545	3	29	Argentina
	Argentina	11616	2080	4	20	
	India	4301	977	5	62	
	Paraguay	1963	2728	6	6	
	Canada	2127	2700	7	5	
	Indonesia	1654	1133	8	47	
	Bolivia	705	2219	9	18	
	Italy	663	3373	10	1	
	Thailand	523	1346	11	40	
	Korea Fed.	161	1345	12	45	
	Russia Fed	403	706	13	76	
	France	221	2548	14	8	
	Mexico	420	1888	15	26	

Table contd....

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries
				Production	Yield	
Sunflower						
	World	22780	1149			
	Argentina	4190	1764	1	7	
	Russia Fed	3173	926	2	33	
	Ukraine	2212	1228	3	22	
	France	1896	2080	4	4	
	U.S.A.	1726	1358	5	25	
	India	1379	509	6	51	
	China	1306	1678	7	15	
	Romania	798	1267	8	26	
	Turkey	818	1377	9	18	
	Hungry	709	1646	10	13	
	Bulgaria	559	1188	11	20	
	Spain	954	621	12	52	
	Italy	468	2369	13		
	South Africa	395	836	14	42	
	Yugoslavia	328	1844	15	8	
Cotton						
	World	18444	574			
	China	4283	805	1	17	U.S.A.
	U.S.A.	3902	693	2	26	Turkmenistan
	India	2272	297	3	62	Australia
	Pakistan	1561	549	4	27	
	Uzbekistan	1276	801	5	19	
	Turkey	654	1055	6	8	
	Brazil	474	410	7	49	
	Turkmanistan	397	1116	8	4	
	Argentina	267	554	9	24	
	Australia	346	1352	10	6	
	Egypt	333	1339	11	9	
	Mexico	126	659	12	28	
	Syria	206	1039	13	10	
	Paraguay	142	476	14	48	

Table contd....

Crop	Country	Average production	Average yield	Rank in the World		Major exporting countries
				Production	Yield	
Onion						
	World	30898	15507			
	China	4561	17272	1	48	
	India	3906	10811	2	78	
	Turkey	2100	19704	3	35	
	U.S.A.	2724	43151	4	3	
	Japan	1225	43148	5	5	
	Iran	1073	25996	6	24	
	Spain	975	35386	7	13	
	Pakistan	926	13047	8	63	
	Egypt	920	45422	9	2	
	Brazil	952	12609	10	70	
	Poland	692	19071	11	41	
	Russian Fed	633	8691	12	94	
	Ukraine	563	8863	13	86	
	Korea Rep.	532	55628	14	1	
	Netherlands	508	48795	15	7	
Tobacco						
	World	7121	1507			
	China	2686	1581	1	45	U.S.A.
	U.S.A.	684	2424	2	23	Brazil
	India	564	1413	3	56	Zimbawe
	Brazil	542	1649	4	46	Turkey
	Turkey	245	912	5	95	
	Zimbabwe	195	2358	6	18	
	Indonesia	134	708	7	111	
	Malawi	120	966	8	85	
	Italy	127	2183	9	24	
	Argentina	104	1471	10	53	
	Korea Rep.	94	2649	11	15	
	Pakistan	94	1732	12	40	
	Canada	73	2572	13	12	
	Azerbaijan	69	4292	14	3	

Source: 1. FAO Production Yearbook 1995, FAO Rome.
2. Directorate of Economics and Statistics, MOA, New Delhi.

Note: @ Refers to the year 1993.

LIST OF AGRICULTURAL AND ALLIED ITEMS HAVING QUANTITATIVE RESTRICTIONS ON THEIR IMPORTS

CATEGORY/ITEM

1. **Live Animals**
   Live horses, bovine animals, sheep and goats, poultry, wild animals, live elephants, pureline stock, bees and other insects.

2. **Meat and Edible Meat Offal**
   Meat of bovine animals (fresh, chilled, frozen), meat of swine, sheep, goats, poultry, rabbits, frogs, pig.

3. **Fish and Crustaceans, Molluscs and other Aquatic Invertebrates**
   Live, chilled, frozen fish. Crustaceans in shell, live, fresh, chilled, frozen, dried, salted, cooked etc. Molluscs in shell live, fresh, chilled, frozen, dried, salted, cooked etc.

4. **Birds 'Eggs; Natural Honey; Edible Products of Animal Origin, not elsewhere specified or included**
   Milk and cream (except skimmed milk and powder milk), milk food for babies, condensed milk, butter milk, curdled milk and cream, whey, butter and other fats and oil derived; dairy spreads; cheese and curd. Bird's eggs and eggs parts.

5. **Other product of animal origin**
   Pigs', hogs' or boars' bristles and hair; badger hair and other brush making hair; waste of such bristles or hair, horsehair and horsehair waste. Animals parts, bones etc; ivory; bovine semen; fish tail; fish waste; silkworm pupae.

6. **Vegetable Products**
   Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant, in growth or in flower. Chicory plants and roots, other live plants (including their roots), cuttings and slips including cactus and roses. Mushroom spawn, cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes. Fresh, dried, dyed, bleached, impregnated or otherwise prepared foliage, branches and other parts of plants without flowers or flower buds, and grasses, mosses and lichens being goods of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated or otherwise prepared.

7. **Edible Vegetables and Certain Roots and Tubers**
   Potatoes, tomatoes, onions, shallots, garlic, leeks and other alliaceous vegetables fresh or chilled. Cabbages, cauliflowers, kohlrabi, kale and similar edible brassicas fresh or chilled. Lettuce (lactuca sativa) and chicory (Cichorium spp.) fresh or chilled. Carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible roots fresh or chilled. Leguminous vegetables; shelled or unshelled, fresh or chilled. Other vegetables, fresh or chilled. Vegetables (uncooked or cooked by steaming or boiling in water), frozen, vegetables provisionally preserved (for example, by sulphur

dioxide gas, in brine, in sulphur water or in other preservative solutions) but unsuitable in that state for immediate consumption, Dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared. Manioc, arrowroot, salep, Jerusalem artichokes, sweet potatoes, and similar roots and tubers with high starch or inulin content, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets; Sago pith.

8. **Edible Fruit and Nuts; Peel of Citrus Fruit or Melons**
Coconuts, Brazil nuts, betel nut, areca nuts, banana, pineapples, avocados, guavas, mangoes, citrus fruits, fresh grapes, melons and papayas, apples, pears, quinces, cherries, peaches, plums all kinds of berries, kiwifruit, pomegranates, tamarind, sapota, sitafal, custard-apple, bore, litchi, dried fruits like apple, waternut and mixture.

9. **Coffee, Tea, Mate and Spices**
Coffee, whether or not roasted or decaffeinated. Coffee husks and skins. Coffee substitutes containing coffee in any proportion. Tea, mate, pepper of the genus Piper, dried or crushed or ground fruits of the genus Capsicum or of the genus Pimenta. Vanilla powder, Cinnamon and cinnamon-tree flowers. Cloves (whole fruit, cloves and strems), nutmeg, mace and cardamoms. Seeds of anise, badiam, fennel, coriander, cumin, caraway at juniper. Ginger, saffron, turmeric (curcuma), thyme, bay leaves, curry and other spices.

10. **Cereals**
Wheat and meslin, rye, barley, oats, Rice, grain sorghum, buckwheat, millet and canary seed.

11. **Malt; Starches; Inulin Wheat**
Wheat or meslin flour, rye flour, maize flour, rice flour, meal and pellets. Cereal grains otherwise worked (for example, hulled, rolled, flaked, pealed, sliced or kibbled). Flour, meal, powder, flakes, granules and pellets of potatoes. Flour, meals and powder of the dried leguminous vegetables roots, tubers, malt, starches etc.

12. **Oilseeds and Oleaginous Fruits; Miscellaneous Grains, Seeds and Fruit; Industrial or Medicinal Plants; Straw and Fodder**
Soyabeans, whether or not broken. Ground-nuts, not roasted or otherwise cooked, whether or not shelled or broken. Copra, linseed, whether or not broken. Rape or coiza seeds, whether or not broken. Sunflower seeds, whether or not broken. Palm nuts and kernels, cotton seeds, castor oil seeds, sesamum seeds, mustard seeds, safflower seeds, shea seeds, ajams, mango kernel, niger seeds, kokum. Flours and meals of oil seeds or oleaginous fruits other than those of mustard. Beet seed, seeds of forage plants and vegetables like cabbage, cauliflower, onion, raddish, cones, tomato etc. Hop cones, fresh or dried, whether or not ground, powdered or in the form of pellets; Lupulin, Plants and parts of plants (including seeds and fruits) of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes, fresh or dried, whether or not cut, crushed or powdered. Locust beans, sugar beet, sugarcane, mohua flowers, chicory roots, swedes, mangolds, fodder roots, hay, lucerne (alfalfa), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets.

13. **Animal or Vegetable Fats and Oils and their Cleavage Products; Prepared Edible Fats; Animal or Vegetable Waxes**

Pig fat, poultry fat, Fats of bovine animals, sheep or goats, Lard stearin, lard oil, oteostearin, oleo-oil and fallow oil, not emulsified or mixed or otherwise prepared. Sperm oil, fats and oils of marine mammals. Soya-bean crude oil, ground-nut crude oil, olive crude oil, crude oil of sunflower and safflower, coconut, palm, babassu, mustard, rape seed, maize, jojoba, mowra, tobacco. Oil of cardamom, chillies, capsicum, turmeric, niger seeds, ajwan seed and Garlic. Margarine of animal and vegetable origin, pea and butter.

14. **Preparations of Meat, of Fish or of Crustaceans, molluscs or other Aquatic Invertebrates**

Sausages and similar products of meat, meat offal or blood; food preparations based on these products; other prepared or preserved meat, meat offal or blood. Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates, prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved.

15. **Sugars and Sugar Confectionery**

Sweet meat.

16. **Residues and Waste from the Food Industries; Prepared Animal Fodder**

Meat, meal and pellets, maize bran, de-oiled rice bran, rice bran-raw by products of cereals pules oil cake and meal.

Source: Extracted from *ITC (HS) Classification of Export and Import Items, April 1997 - March 2002*, Ministry of Commerce, Government of India, New Delhi.

RATES OF CUSTOM TARIFF ON AGRICULTURAL AND ALLIED ITEMS AS ON 1.3.1997

Category/Item	Rate of duty %
1. Live Animals	
Cows, heifers, bulls, goats, sheep, pigs, angora rabbit, duckling and parhelion poultry stock	Nil
All other animals	40
2. Meat and Edible Meat Offal	
Meat of bovine animals (fresh, chilled, frozen), meat of swine, sheep, goats, poultry, rabbits, frogs, pig.	10
3. Fish and Crustaceans, Molluscs and other Aquatic Invertebrates	
Live fish, chilled, frozen. Crustaceans in shell live fresh, chilled, frozen, dried, salted, cooked etc. Molluscs in shell live, fresh, chilled, frozen, dried, salted, cooked etc.	10
4. Birds 'Eggs; Natural Honey; Edible Products of Animal Origin not elsewhere specified or included	
Milk and cream, condensed milk, butter milk, curdled milk and milk and cream, whey, butter and other fats and oil derived; dairy spreads; cheese and curd; bird's eggs and eggs parts.	30
Milk in powder, granules or other solid forms	Nil
5. Other product of animal origin	
Pigs', hogs' or boars' bristles and hair; badger hair and other brush making hair; waste of such bristles or hair, horsehair and horsehair waste, animals parts, bones etc. Ivory; bovine semen; fish tail; fish waste; silkworm pupae.	10
6. Vegetable Products @	
Bulbs, tubers, tuberous roots, corms, crowns and rhizomes dormant, in growth or in flower. Chicory plants and roots, other live plants (including their roots), cuttings and slips including cactus and roses, mushroom spawn, cutflowers, and flower buds of a kind suitable for bouquets or for ornamental purposes. Fresh, dried, dyed, bleached, impregnated or otherwise prepared foliage, branches and other parts of plants without flowers or flower buds, and grasses, mosses and lichens	10

being goods of a kind suitable for bouquets or for ornamental purposes, fresh dried, dyed, bleached, impregnated or otherwise prepared.

7.	**Edible Vegetables and Certain Roots and Tubers @** Potatoes, tomatoes, onions, shallots, garlic, leeks and other alliaceous vegetables; fresh or chilled. Cabbages, cauliflower kohlrabi, kale and similar edible brassicas, fresh or chilled. Lettuce (lactuca sativa) and chicory (Cichorium spp.), fresh or chilled. Carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible roots fresh or chilled. Leguminous vegetables, shelled or unshelled, fresh or chilled. Other vegetables, fresh or chilled. Vegetables (uncooked or cooked by steaming or boiling in water), frozen, vegetables provisionally preserved (for example, by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions) but unsuitable in that state for immediate consumption, dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared. Manioc, arrowroot, salep, Jerusalem artichokes, sweet potatoes, and similar roots and tubers with high starch or inulin content, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets; sago pith.	10
	Dried leguminous vegetables (pulses)	5
8.	**Edible Fruit and Nuts; Peel of Citrus Fruit or Melons** Coconuts, Brazil nuts, betel nut, areca nuts, other nuts, almonds, shelled cashewnuts	40
	Cashewnut in shell	Free
	Banana, pineapples, figs, avocados, guavas, mangoes, citrus fruits, melons and papayas, apples, pears, quinces, cherries, peaches, plums all kinds of berries, kiwifruit, pomegranates, tamarind, sapota, sitafal, custard-apple, bore, litchi, dried fruits like apple, waternut and mixture.	40
	Fresh grapes, dates.	30
	Grapes dried	125
9.	**Coffee, Tea, Mate and Spices** Coffee, whether or not roasted or decaffeinated. Coffee husks and skins. Coffee substitutes containing coffee in any proportion. Tea.	10
	Mate	30

	Pepper of the genus piper, dried or crushed or ground fruits of the genus capsicum or of the genus pimenta.	30
	Vanilla powder.	30
	Cinnamon and cinnamon-tree flowers. Cloves (whole fruit, cloves and strems), nutmeg, mace and cardamoms.	30
	Seeds of anise, badiam, fennel, coriander, cumin, caraway or juniper berries.	30
	Ginger, saffron, turmeric (curcuma), thyme, bay leaves, curry and other spices.	30
10.	**Cereals**	
	Wheat and meslin, rye, barley, oats, rice, grain sorghum, buckwheat, millet and canary seed.	Free
11.	**Malt; Starches; Inulin Wheat**	
	Wheat or meslin flour, rye flour, maize flour, rice flour, meal and pellets, cereal grains otherwise worked (for example, hulled, rolled, flaked, pealed, sliced or kibbled). Flour, meal, powder, flakes, granules and pellets of potatoes. Flour, meals and powder of the dried leguminous vegetables roots, tubers, malt, starches etc.	30
12.	**Oil Seeds and Oleaginous Fruits; Miscellaneous Grains, Seeds and Fruit; Industrial or Medicinal Plants; Straw and Fodder @**	
	Soyabeans, whether or not broken, ground-nuts, not roasted or otherwise cooked, whether or not shelled or broken. Copra, linseed, whether or not broken. Rape or coiza seeds, whether or not broken. Sunflower seeds, whether or not broken. Palm nuts and kernels, cotton seeds, castor oil seeds, sesamum seeds, mustard seeds, safflower seeds, shea seeds, ajams, mango kernel, niger seeds, kokum.	40
	Flours and meals of oil seeds or oleaginous fruits, other than those of mustard.	40
	Beet seed, seeds of forage plants and vegetables like cabbage, cauliflower, onion, raddish, cones, tomato etc.	10
	Hop cones, fresh or dried, whether or not ground, powdered or in the form of pellets; lupulin, plants and parts of plants (including seeds and fruits), of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or	40

	similar purposes, fresh oe dried, whether or not cut, crushed or powdered. Locust beans, sugar beet, sugarcane, mohua flowers, chicory roots, Swedes, mangolds, fodder roots, hay, lucerne (alfalfa), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets.	40
13.	**Animal or Vegetable Fats and Oils and their Cleavage Products; Prepared Edible Fats; Animal or Vegetable Waxes @@**	
	Pig fat, poultry fat.	30
	Fats of bovine animals, sheep or goats,	10
	Lard stearin, lard oil, oteostearin, oleo-oil and fallow oil, not emulsified or mixed or otherwise prepared,	30
	Sperm oil, fats and oils of marine mammals,	30
	Soya-bean crude oil, ground-nut crude oil, olive crude oil, crude oil of sunflower and safflower, rapeseed, mustard, sesame, cardamon, turmeric, niger seed.	30
	Coconut, palm, babassu, mustard, rape seed, maize, jojoba, mowra, tobacco.	40
	Margarine of animal and vegetable origin, pea and butter	30
14.	**Preparations of Meat, of Fish or of Crustaceans, molluscs or other Aquatic Invertebrates**	
	Sausages and similar products, of meat, meat offal or blood; Food preparations based on these products, Other prepared or preserved meat, meat offal or blood, Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates, prepared or preserved fish; Caviar and caviar substitutes prepared from fish eggs, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved.	40
15.	**Sugars and Sugar Confectionery**	
	Refined sugar including white crystal sugar and raw sugar	nil
	Other sugars and sugar confectionery	40

@ Tariff reduced to nil wef 1.3.1997 on the planting material namely oilseeds, seeds of vegetables, flowers and ornamental plants, tubers and bulbs of flower, cutting or sapling of flower plants, seeds or plants of fruits, seeds of pulses.

@@ Tariff on vegetable oils (other than coconut oil RBD palm kernal oil, and palm stearin) of edible grade changed to 20% wef 1.3.97.

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3. Dayanatha Jha, Praduman Kumar, Mruthyunjaya, Suresh Pal, Selvarajan, S. and Alka Singh, 1995 *Research Priorities in Indian Agriculture*

4. C.C.Maji and A.Bhattacharya, 1995 *GATT and Agricultural Exports - Hopes and Realities* (out of print)

5. C.C. Maji, T. Haque and A. Bhattacharya, 1995 *Small Farms and Surplus Generation - A case of West Bengal*

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2. Ramesh Chand and T. Haque, 1996 *Vision of India's Rice Trade*

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