CHAPTER 7

CONCLUSION AND SUGGESTIONS

7.1. Findings of the Study

1. The reform process in India after agreement of WTO in 1995 significantly weakened the institutional support structures in agriculture. The protection offered to agriculture from predatory imports was removed, resulting in a fall in prices of many commodities. As part of fiscal reforms, major input subsidies were brought down relative to the size of the agricultural economy.

2. Any change in the agriculture sector has a strong multiplier effect on the entire economy. The multiplier for food industry is much higher than that for industries such as power and telecom, reason being that the food industry directly and indirectly triggers growth in a number of other industries such as transport, refrigeration, pesticides and fertilizers.

3. India’s agri-exports face certain constraints that arise from conflicting domestic policies relating to production, storage, distribution, food security; pricing concerns etc. unwillingness to decide makes Indian supply sources unreliable. Higher domestic prices in comparison to international prices of products of bulk exports commercially less comparative. Market intelligence and creating awareness in international market about quality of products need to be strengthened to boost agricultural exports.

4. Public capital formation in agriculture continued to fall, and the growth of public expenditure on research and extension slowed down.

5. The most significant positive aspect of our agricultural exports is that a
majority of the items in the agriculture export basket are net foreign exchange earners, with negligible import content unlike high import content in many manufactured products.

6. The expansion of rural credit was halted, reopening the doors for the informal sector. Public resources were sought to be channelled away from food crops and towards high-value export-oriented crops.

7. Regulated markets came to be treated as obstacles to efficient marketing.

8. Over the period of economic reform and WTO period, agricultural growth rates slowed down significantly. Most importantly, the rate of growth of food grain production slowed down, and fell behind the population growth rates for the first time after independence. The per capita food grain availability fell from about 175 kg in 1992 to 163 kg in 2001. The spate of farmers’ suicides reported from certain parts of the country reflects the distress state of agriculture after 1995 (WTO established). Between 1997 and 2006, there were about 150,000 suicides by “farmers” in rural India.

7.2. Challenges of Indian Agriculture in WTO regime

The challenges before Indian agriculture are immense. India is not where it should have been in the world market for agricultural products despite being one of the top producers. The country needs to put greater emphasis on cultivation of international varieties. Until India takes some steps in this direction, it will continue to produce more only to earn less.

Globalization raises many challenges and opportunities to the agricultural sector which need to be addressed effectively in the national R&D agenda. A dedicated group of experts on full time basis should work on the WTO issues to provide analytical basis for negotiations and to help in planning appropriate
strategies to strengthen Indian agriculture to face increasing trade globalization. Growing indebtedness in agriculture is driving thousands of farmers to commit suicide. A recent study by the Madras Institute of Development Studies on farmer suicides indicates that more than 150,000 farmers committed suicides between 1997 and 2005 and today one farmer is committing suicide every 32 minutes. I therefore demand for a complete debt relief not only from institutional debt but also of private money lenders.

Rigid quality control is a major challenge for Indian agriculture. The global agricultural market is influenced to a great extent by the quality of products, especially when exporting to developed nations. Indian agricultural exports have to face tough competition, which is a matter of serious concern. The right type of technology for growing and processing must be adopted so that there is good quality production at lower costs, which in turn will reduce the prices and place India in a better position to compete globally. Indian producers produce agricultural goods at competitive prices. Yet low global prices resulting from subsidies by the developed nations mainly the European Union and United States, deprives India of any advantage on the price front. The US is exporting wheat at prices 40 per cent lower than production costs. In the case of soybean, the price difference has been increasing steadily over the last four years and is currently at 30 per cent while for maize it is 25-30 per cent. In 2001, cotton was being sold in the international markets at a price 57 per cent lower than its production cost, while the price difference for rice has stabilized at 20 per cent. As a result of these prices, the US is the world’s largest exporter of wheat, corn, cotton and soybean, and the second largest in rice.

While agricultural trade liberalization was justified on the grounds that Northern agricultural markets would open to India, India’s exports to Europe
have actually declined from 13 to 6 per cent. This is because the North still maintains high subsidies and trade barriers. The WTO regime has become a challenge because it has shown that agriculture trade liberalization has become a unidirectional phenomenon that opens markets in the South for Northern business corporations but closes markets in the North for trade from South. Such trade will destroy livelihood opportunities for resource-poor farming families and agricultural labour.

Global forces are now playing an important role in determination of cropping patterns, investment levels, price structures, quality of production and level of international trade. Indian farmers are facing multiple challenges. Firstly, they are being asked to provide a greater variety of better quality products at lower cost, and in a safer manner than ever demanded before. Secondly, they are being asked to produce this abundance on a shrinking natural resources base that is often subject to government regulations. As far as India is concerned there are some danger signals. Population growth rate and higher per capita income suggest that demand for foodgrains is growing. But there are doubts about the supply response. In terms of acreage, area under foodgrains has not increased. Yield growth rates of food grains are also stagnating in most parts of the country. The productivity of soil has also started declining. The underground water table in most Indian states is getting rapidly depleted. Based on these facts, various studies have pointed out that India will be a net importer of rice in the near future.

In such a competitive environment, India should be prepared to meet the challenges that are detrimental to the interests of her people
7.3 Implication of Indian agriculture due to WTO

The challenge to policy makers is how to protect Indian agriculture from the impending WTO threat, enhance the competitiveness of Indian farming and make farming a viable and self-sustaining enterprise to improve and ensure livelihood security by the farmers. India should prepare to take challenge of any deviation from main objective of WTO and take initiative in organizing other developing countries for the same purposes. The last Ministerial meeting to discuss and finalize modalities of WTO agreements was held from 13-18 December, 2005 in Hongkong. However, no consensus could be reached once again, and the meeting ended up with a resolve to complete Doha Work Programmes and to conclude negotiations successfully in year 2006. But there is no sight of any progress in the negotiations. Serious differences persist between three main groups of WTO members, namely, developing countries led by G20, EU and USA on almost all the issues like reduction in domestic support and export subsidies in developed countries, formula for tariff reduction and special and differential treatment for developing countries in almost all the commitments. Therefore, there is a stalemate which implies that imbalances of Uruguay Round agreement would continue. This stalemate has given freedom to the developing countries not to further liberalise their markets. On the other hand, the delay in concluding new agreement is helping the developed countries in several ways. With postponement of negotiations, the dates for implementing fresh commitments to reduce domestic support and export subsidies are automatically getting shifted to distant future. Thus, countries like USA and EU, are free to follow trade distorting policies in the absence of fresh commitments. While it is highly desirable to eliminate export subsidies, phase out domestic support and have separate set of commitments for developed and developing
countries, it is also important to recognize that the deadlock is not helping anyone to achieve these goals. India and other developing countries need to put pressure on the developed countries to have some interim agreement to at least reduce domestic support and export subsidies as per their initial offers. Lastly, reshaping and modernizing Indian agriculture to face the pressures of the next few decades is a huge and complex task and requires a wide range of policy interventions which have already been discussed. These policy recommendations should be implemented as soon as possible to enable Indian agriculture to face challenges of the 21st century. Dr Anil Sharma of the NCAER feels that ‘Indian agriculture is quite competitive and India should adopt a more aggressive stand in the negotiations’

Even today 26 per cent of the people are below the poverty line. They remain under-nourished in spite of various programmes to streamline food distribution amongst the poor. We have to consider their increasing requirements that would result from their economic uplift, as and when it happens.

The challenges ahead for India now lie in implementing sound domestic policies that increase competition in, and improve the contestability of, domestic markets. These challenges are, above all, domestic. However, active multilateral engagement can be incrementally helpful in facilitating domestic reform and gaining access for India’s exports of goods and labor services. A strategy to address this challenge shall necessarily involve re-orientation and injection of market linked dynamism in Indian agricultural Research and Development, strengthening of supportive institutions to serve the resource poor farmers, and steering fast the change with appropriate policies and trained human ware.
7.4. Future Outlook

Despite impressive gains and some milestone achievements in few select agricultural commodities, India still has a long way to go in making its agricultural exports making more competitive in the world market. Liberalisation and globalisation of world trade regimes in agriculture products has certainly opened many new opportunities for a country like India, with its near self sufficiency in agricultural inputs, relatively low costs of labour and its diverse agroclimatic profile, which can support production of wide range of agricultural export products. However, India needs to raise the level of productivity and quality standards to international levels, which is one of the major challenges, following dismantling of quantitative restrictions on imports and with adoption of WTO agreement on agriculture.

While a beginning has been made in partly freeing the global agricultural trade from the constraints of stifling tariff and nontariff barriers, considerable effort still needs to be taken up to neutralize the developed economies from resisting agricultural imports from the developing world and bring down the level of protection and subsidies to bring greater parity in terms of trade. India’s challenges on the global agricultural trade front are thus, both internal as also external in nature. While required changes in the external global trade environment will take longer time and greater collective effort of nations, India needs to initially focus on improving its internal situation in the agricultural sector, by rebuilding its competitive advantages so that it can present stronger positions when it comes to negotiating either with WTO or other developed countries.

The increased trade liberalisation has resulted in import of genetically engineered foods and seeds. For example the UPA government has allowed
import of processed food containing genetically modified organisms (GMOs) and exempted it from regulatory approval. Several other imported foods have been found to be containing GMOs and are openly selling in Indian market without any regulation and testing. The UPA government has also permitted large-scale field trials of Bt Brinjal, the first GM food crop in India while several other GM crops are on the verge of being released for commercial cultivation. In order to protect our biological diversity and our rich food culture, I demand a complete ban on commercial release as well as imports of all GM crops, foods and seeds in the country. Instead of promoting GMOs, the government must support ecological agriculture and provide incentives in the coming Budget for growing toxic free foods through organic farming. I also demand for a sharp cut in diesel prices commensurate to the current drop in crude oil prices.

Developing countries should organize themselves to negotiate at WTO conference for developing countries benefits. One of the most significant developments at the WTO in recent times is the enhanced ability of the developing countries to come together and negotiate effectively with the developed countries. India, along with Brazil and now China has leaded the developing countries to ensure that the developed countries do not have their way at the WTO negotiating table. RTAs among some of these developing countries can further cooperation among them at the WTO. Interaction on trade issues at the regional level enhances the capability of the developing countries to forge alliances at the multilateral fora. On similar lines, in 2005, India suggested that South Asian Association of Regional Cooperation (SAARC) countries should negotiate commonly at the WTO.

According to experts, India has to play a bigger role in the global markets in agriculture products in the future. The country is expected to strengthen its
position among the worlds leading exporters of rice. Presently it is the 2nd largest rice producer after China and the 3rd largest net-exporter after Thailand and Vietnam.

However, recent reports states that agriculture plays an important, though declining role in Indian economy. Its contribution in overall GDP fell from 30 % in the early nineties, to below 17.5 % in 2006. The country is a world leader in specialist products, such as buffalo milk, spices and bananas, mangoes, chickpeas etc., which are considered as important in the Indian diet and are also exported. India is the 5th largest cultivator of biotech crops across the world, ahead of China. In the year 2006, around 3.8 million hectares of land were cultivated with genetically modified crops, by about 2.3 million farmers. The primary GM crop is Bt Cotton that was introduced in 2002. The future growth in agriculture sector must come from -

- Advanced technologies that are not only "cost effective" but also "in conformity" with natural climatic regime of the country
- Technologies applicable to rain-fed areas particularly
- Continued genetic improvements for improved seeds and yields
- Improvements in data for superior research, results, and sustainable planning
- Bridging the gap between knowledge and practice; and
- Judicious land use resource surveys, effective management practices and sustainable use of natural resources.

As mentioned earlier, for a large majority of farmers in different parts of the country, the gains from the application of science and technology in agriculture are yet to be realized which would require infrastructural support, improved
technologies and provision of inputs at reasonable cost. The Agreement on Agriculture thus recognized this and developing countries have been given the freedom to implement such policies under Article 6 relating to differential treatment, but any attempt in future to dilute provisions relating to differential treatment for developing countries could affect us adversely.

Regarding the impact of liberalization of trade in agriculture in the long term, Indian agriculture enjoys the advantage of cheap labour. Therefore, despite the lower productivity, a comparison with world prices of agricultural commodities would reveal that domestic prices in India are considerably less with the exceptions of a few commodities (notably oilseeds). Hence, imports to India would not be attractive in the case of rice, tea, sunflower oil and cotton. On the whole, large scale import of agricultural commodities as a result of trade liberalization is ruled out. Even the exports of those food grains which are cheaper in the domestic market, but are sensitive from the point of view of consumption by the economically weaker sections are not likely to rise to unacceptable levels because of high inland transportation cost and inadequate export infrastructure in India. Through proper tariffication, however, we will have to strike a balance between the competing interest of 10% farmers who generate marketable surpluses and consumers belonging to the economically poor sections of the society.

According to the WTO, a full liberalization of international trade would “automatically” benefit India. The reality is anything but; far from being a source of development, unregulated free trade carries significant risks. A new approach is therefore required.

7.5.Suggestion

The suggestions are giving by different headings
7.5.1 Suggestion to Government

Government of India declared that Second Green Revolution was an essential prerequisite for achieving an overall economic growth of 8 percent on a sustained basis.

The policy environment is lagging behind the structural change occurring in India’s consumption and production baskets (Joachim et al., 2005). Here I suggest some suggestion to Indian government in following-

1. The high 'economic cost' of foodgrains incurred by the FCI is attributable not only to rising procurement prices but also to the unduly high costs of storage, movement and marketing, etc. Therefore, a major reform to reduce such costs needs to be undertaken by limiting the role of the FCI to support operations at minimum support prices covering, say, variable costs and supplementing stocks so procured with purchases at market prices so as to meet the commitments of the public distribution system.

2. Government should bring pro-farmers national agricultural policy. Should continue subsidy and free electricity supply to the farmers.

3. There was a significant slowdown of public expenditure in two specific sectors within agriculture: research and extension. Historically, agricultural research and extension have been sectors where the government invested heavily and where private investment was not significant. Extensive public support was encouraged, as these were considered as “public goods.” As public goods are prone to market failures, the state was considered as necessary to step in and invest. It has been documented that the rates of return from public investment in research and extension are significant.
4. The Ministry of Commerce of GOI should sponsor a **Special Food for Wage and Employment Stabilisation** programme in the plantation crops sector, on the model of the Sampoorn Gramin Rozgar Yojana of the Union Ministry of Rural Development. The Union Commerce Ministry should also launch a warehousing programme designed to avoid distress sales and market manipulation in plantation crops and medicinal plants, on the model of the Rural Godown Scheme of the Ministry of Rural Development. Also, consideration should be given to treating Natural Rubber as an agricultural crop.

5. India government should hold regular consultations with peoples and legislatures, especially when negotiation in process.

6. Capital formation in the public sector should be augmented. Money saved from the reduction in subsidy for agricultural inputs should be utilised for this purpose.

7. The Government of India should strengthen public-sector research in agriculture, and no MNC-sponsored research projects should be allowed in the public funded institutions/universities.

8. Indian government should frame such policies that give powers to farmers to control production and distribution of agricultural seeds, water etc.

9. Decisions related to WTO are being taken and negotiations are being done by the central government. Even though the brunt of the problems emanating from such decisions are to be borne by the state governments, they are not consulted or taken into confidence. A mechanism be created so that the issues concerning WTO are discussed and differences thrashed
out in order to arrive at a consensus and further, that no decision is taken without proper consultation and agreement with the state governments.

10. There should be a merger of several related departments like irrigation, fertilizer, food, agriculture, etc. for better coordination and synergy.

11. There is necessity to establish Export Processing Zones and Commodity Boards for targeted commodities

12. India must have greater participation at the negotiating table and must have its own explicit agenda about tariff reductions, market access and substantial reduction of domestic and export subsidies by major developed countries

13. Throughout the 1990s, the share of agriculture in the gross capital formation (at constant prices) has remained in single digits, which explains the slackening of its growth momentum during the past decade. This has contributed to the decline in the share of the sector in GDP from just less than a third in the early 1990s to below fourth a decade later. So I suggest that the gross capital formation should increase in large amount.

14. Export of high value products, horticulture products, processed products, marine products and rice should be promoted.

15. Government should bring pro-farmers national agricultural policy. Should continue subsidy and free electricity supply to the farmers.

16. Provide knowledge to young agriculture scientists in modern crop production technologies through modified university curricula.

17. Appropriate domestic policies (extensive domestic market reforms, heavy investment in building and maintaining infrastructure, etc.) to improve
efficiency and competitiveness of domestic produce should be devised.

18. The constraints of multiplicity of laws in agricultural marketing, processing and transport should be simplified.

19. Since IPR is becoming an important issue, a clear-cut policy on IPR, its protection, maintenance, evaluation, handling of IPR infringements, etc. should receive priority attention at the Central, State and institutional levels.

20. India needs to devise appropriate domestic policies to improve efficiency and competitiveness of domestic produce.

7.5.2. Suggestion to WTO administration

1. Blue box measures should be eliminated. And Blue box should not be included in the calculation of Final Bound Total AMS.

2. Developing countries including India need to be allowed to provide domestic support in the agricultural sector to meet the challenges of food security and to be able to preserve the viability of rural employment, as different from the trade distortive support and subsidies presently permitted by the Agreement.

3. The negotiators should calibrate the subsidy reduction formulas so that the post-cut level of trade distorting support for developed countries should not exceed 5 percent of their total value of agricultural production.

4. To impose strong and legally tight definitions of Green box subsidies to ensure that subsidies within these boxes are not production or trade distorting.

5. There should be a broad framework of subsidy reduction, as outlined in
the July package, can be considered as a step towards the right direction but it does not guarantee significant reduction in subsidies.

6. Along with export subsidies, export credits and guarantees may also be suggested to be brought under reduction commitments.

7. Dumping of agricultural goods must come to an end: For many developing countries agriculture constitutes the basis for life for the majority of the population; often the poorest part. In the rich countries only a few percent of the population make a living by agriculture. Only when it comes to agricultural goods, it is still permitted to subsidise export, just as a number of other trade distorting subsidies are allowed. The rich countries make efficient use of these possibilities.

8. To impose strong and legally tight definitions of Green box subsidies to ensure that subsidies within these boxes are not production or trade distorting.

9. The WTO should emphasize greater self sufficiency of economies nationally and regionally-Domestic markets, rather than foreign markets, should be the main stimulus of growth.

10. WTO should insist that the working documents and minutes of WTO meetings be readily available to the public.

11. All countries should notify their quality requirements of agricultural produce clearly on the WTO website.

12. The tariff quota should be global and not specific to countries and ensure that all countries have the opportunity of utilising the quotas. Under the provision, which allows for tariff quota in agriculture, some developed countries have liberally provided for country specific tariff quotas. These
results in other countries not getting the chance of utilising these access opportunities.

13. Green-Box includes measures of support that causes no or at most minimal trade-distorting effects on production. Support be provided through a publicly funded government programme not involving transfers from consumers, and shall not have the effect of providing price support to producers. E.g. General services including pest control, infra-structural services etc.; direct payments to producers (not related to production/prices); food security stocks, domestic food aid.

7.5.3. Suggestion to agro-industry

The Indian Agriculture Industry is on the brink of a revolution that will modernize the entire food chain, as the total food production in India is likely to double in the next ten years. Both in terms of foreign investment and number of joint-ventures / foreign collaborations, the consumer food segment has the top priority. The other attractive features of the Indian agro industry that have the capacity to lure foreigners with promising benefits are the deep sea fishing, aqua culture, milk and milk products, meat and poultry segments.

1. India has to counter the challenges in the export of traditional items and to enhance production, transport infrastructure, quality maintenance, stable supply etc.

2. Elevate agriculture to an industry by adopting value-added processing of produce, post harvest handling methods, contract farming, marketing, etc. to benefit farmers, consumers and industry.
3. Adopt various steps in crop production from sources with proven track record elsewhere, to reduce unit cost of produce and to enhance its raw product quality to be competitive in global markets.

4. Encourage industries to seek collaboration with food processing companies in other countries such as Philippines, Thailand, Malaysia, China, etc. to gain know-how and global market share of processed fruits and vegetables.

7.5.4. Other suggestion

1. India must have greater participation at the negotiating table and must have its own explicit agenda about tariff reductions, market access and substantial reduction of domestic and export subsidies by major developed countries.

2. Reversal of the IPR trends. Patents/ IPR should be granted to individual innovators and not corporations/institutions.

3. The traders/wholesalers/retailers are not aware about the procedures of export and HACCP/ISO Certification. Hence, it is recommended to make them aware regarding the export procedures/ISO/HACCP etc certification.

4. India should use transition periods negotiated in WTO to increase investments in human capital, land tenure, water access, technology, infrastructure, non-agricultural rural enterprises, organizations of small farmers and other forms of social capital and political participation for the poor and vulnerable
5. A global movement is calling for a ban on patents on life and recovering of the generic basis of life as “commons” which cannot be owned and privatised.

6. India has to learn from the experience of other developing countries like Thailand and Malaysia regarding compliance to food safety standards.

7. India, unlike other developing countries, has all the qualified personnel, and it should go in for strengthening and introduction of SPS and TBT clauses to agriculture market.

8. Green-Box includes measures of support that causes no or at most minimal trade-distorting effects on production. Support be provided through a publicly funded government programme not involving transfers from consumers, and shall not have the effect of providing price support to producers. E.g. General services including pest control, infra-structural services etc.; direct payments to producers (not related to production/prices); food security stocks, domestic food aid.

9. There is a need to fully reform domestic market as has been done by China. The constraints of multiplicity of laws in agricultural marketing, processing, storage, transport should be immediately addressed to impart simplicity, reduce transaction costs and attract private investments in post harvest management.

10. Scientists should play an important role in the negotiations where science is involved. Issues such as, specification of phytosanitary measures, gender empowerment, sustainability etc., should be taken out of the trade and should be left to the decisions of the scientist-professionals.
7.5.5. Suggestion to Farmers in India

1. Farmers in India should try to reduce their cost of production and improving product quality. Thereby they can compete in international market
2. Indian farmers should cultivate high exportable products like horticulture products, processed products, marine products.
3. farmers should reduce their cost of production, thereby they can compete in increased price of agricultural products in the world.(means they can compete with MNCs products).
4. farmers should consider in group themselves to cultivate farming of products, thereby they can reduce their cost and also use modern technology.

7.6 Conclusion

Indian agriculture has milestones. The green revolution transformed India from a food deficient stage to a surplus food market. In a span of 3 decades, India became a net exporter of food grains. Remarkable results were achieved in these fields of dairying and oil seeds through white and yellow revolutions. Agricultural trade has continued to grow since the Uruguay Round agreement, but more slowly than in earlier years, and more slowly than non-agricultural trade. Despite these major structural transformations, the agriculture sector continues to accommodate the major share of the workforce. India is yet to emerge as significant trade partner in the world agriculture market. India holds around 1% of the global trade-in agricultural commodities. With the ongoing trade negotiations under the WTO, Indian Agriculture needs to reorient its outlook and enhance competitiveness to sustain growth from a demand side(Krishan Kumar).
The average annual growth of GDP in agriculture and allied sectors slowed down in the post-WTO period when compared to the preceding decade, while the growth of crop output, especially food grains output, decelerated [Government of India 2001]. The experience of the 1990s clearly demonstrates that far from trade liberalisation dampening the performance of agriculture, the failure of public investment and effort is responsible for the inability to benefit from trade liberalisation by step-ping up and diversifying agricultural out-put in a cost-effective way. On the trade front, there is a need for extreme vigilance so as to be able to take timely measures, within the existing tariff bindings, to arrest heavy import of certain commodities. Also, since the philosophy behind trade liberalisation is the maximisation of global welfare through efficiency gains, mapping out comparative advantages across countries for different commodities in a dynamic setting is necessary as a basis for meaningful negotiations in the WTO. The developed countries are very well equipped with technical and legal expertise, even though these capabilities are used for advancing their case towards perpetuation of domestic support to agriculture and restriction of market access, that are quite untenable. On the other hand, the capabilities of developing countries, including India, are poor in this respect. Despite their approach and line of action on matters relating to agricultural trade being justifiable on theoretical as well as practical grounds. Therefore, there is a need to give a high priority to the development of these skills in the country. The private sector should be allowed a free play for the rest of operations so as to make food grains affordable to the consumers and competitive in the export market. But the major effort on the domestic front for ensuring the viability of Indian agriculture has to be focused on raising productivity by stepping up public investment, by accelerating the evolution and adoption of cost-reducing technologies, and by removing restrictions on agricultural trade, marketing and processing within the
country. All this requires to be achieved through major reforms in governance and institutions, particularly at the state level. The investible resources with the government have to be raised, among other things, by increasing the tax-GDP ratio as well as through better cost-recovery for the input services provided. Institutional reforms for augmenting and managing the infrastructure and other services through participatory processes such as Water Users' Associations, Watershed Development Committees, and Self-Help Groups, already under way in some states, need to be stepped up. Such reforms at the grass roots level hold the key to improving the viability of Indian agriculture in the wake of trade liberalization.

It is expected that the combined effect of the reforms in the domestic policies and international trade reforms would result in a much larger integration of the Indian economy with the rest of the world, and such a scenario would bring about substantial benefits to the Indian farmers. But the reforms undertaken so far have however failed to bring about the expected gains to Indian farmers. The process of reforms is still continuing and it is hoped that once the negotiations on reforms conclude and the envisaged reforms are implemented in letter and spirit, the gains to Indian agriculture would be positive and substantial (Malik).

President of Brazil, Luis Inácio ‘Lula’ da Silva predicted that: ‘Any export efforts we might make will be worth nothing if the rich countries continue to preach free trade and practice protectionism.’ Moreover, expenditure on such items will not be inflationary as it will promote agricultural productivity, a point shared by Desai (1999).

With the globalization of agriculture, major emphasis should be laid on increasing the productivity, improving the quality standards of products,
judicious use of production input, processing of farm produce, recycling of farm waste, value addition, and marketing of the products. Every measure should be taken to safeguard the livelihood security of the farmers, the vast majority of whom are resource-poor operating small and marginal holdings. We need a vision of the directions in which we should move. Centerpiece of that vision is that we build a strong Indian agriculture, mainly driven by a growing and diversifying domestic market and larger trade volumes in the external market. While doing so, the livelihood security of the dependent population is not only safeguarded but enhanced taking globalization as an uncommon opportunity.

For its further growth, Indian agriculture is in need of substantial public investments in irrigation, power, roads, and agricultural research and extension, rather than subsidies on inputs. Indeed, there is a consensus now among planners and policy-makers that the declining investment in agriculture is basically attributable to the mounting subsidies on irrigation, power and fertilizers.

India needs to carefully consider its own agricultural policies. For years we have discriminated against agriculture, and although the most obvious macro-economic biases may be gone, we still do not invest enough in agriculture and rural development. The best approach is to eliminate biases against the agricultural sector in the general policy framework and to maintain a neutral trade policy that reduces protection over time.

A country like India needs, therefore, to prepare itself for competing with low-cost farm products rather than expecting a significant rise in their prices via reform-induced reduction in the export surpluses from the developed countries. Incidentally, this scenario should serve to dispel fears that those of the least developed countries which are net importers of food stand to lose heavily on
account of the rise in the prices of food following the reduction of farm support in the developed countries.

Although private investment in agriculture was stepped up in the post-reform period of the 1990s in response to the liberalisation of the economy and favourable terms of trade, real public investment continued to decline on account of fiscal compression and the failure to reduce input subsidies. As a result, the development of infrastructure like irrigation, rural electrification, roads and markets has been a major casualty. As the Mid-Term Appraisal of the Ninth Five-Year Plan points out, "there is a strong complementarities between public and private investments, and inadequate public investment could lead to a 25 per cent lower private investment than desired". Further, the combined expenditure by the centre and the state governments on agricultural research and education, which is the most important determinant of TFP in agriculture, stagnated around 0.5 per cent of agricultural GDP over this period [Pal, Jha and Singh 1997], as against the requirement of 1 per cent of agricultural GDP projected by the Indian Council of Agricultural Research for the Ninth Five-Year Plan.

In response to the rise in world price, this thesis concludes that this change would have almost negligible impact on India’s production for rice and wheat and a marginal increase in the production of cotton and sugar. The welfare impact on small farmers based on these changes is also estimated. The important fact to be observed in this study is that the developed countries’ policies protecting their farming sector critically affect the lives of billions of people who depend on agriculture in developing countries.

India should carefully identify the issues of its interest in the global trade and strongly push this agenda in the forthcoming negotiations of WTO besides
implementing appropriate domestic policies and strategies that improve competitiveness of Indian agriculture.