

**POLICY
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Globalization of Agriculture: R & D in India



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Introduction

Globalisation of the national economies which seek to reform the trade sector beset with various trade barriers arising from market restrictions such as tariffs, preferential quotas, quantitative limits, and non-tariff measures including phytosanitary stipulations, etc., is highly distorted currently. Competitiveness of countries in individual products/commodities is expected to play a major role in the international trade. Through globalisation, as trade barriers are reduced and unfair competition is disciplined, freer trade is expected to take place for many commodities.

India is a signatory to the Uruguay Round Agreement of the General Agreement on Tariffs and Trade (GATT). This makes it mandatory for India and all member countries to open up their economies to the world market. In this process, agriculture will be a key sector. For the first time in world trade history, the World Trade Agreement of 1994 brought agriculture within its policy framework. With the signing of WTO Agreement on Agriculture in 1994, India, alongwith 119 other member countries, will have to implement the agreement. The obligations and disciplines incorporated in the agreement which seek to reform trade in agriculture and provide the basis for market-oriented policies on agriculture, relate to the aspects of market access, domestic support, export competition/subsidies, sanitary and phytosanitary measures, and Trade Related Intellectual Property Rights (TRIPS).

Provisions on market access in the agreement primarily envisage tariffication of all non-tariff barriers and progressive reduction of tariff levels within a stipulated time (36 per cent over 6 years in the case of developed countries and 24 per cent in 10 years in the case of developing countries, with the least developed countries being excluded) as well as removal of quantitative restrictions. Domestic support measures that have a minimal impact on trade are excluded from reduction commitments. By quantifying domestic support measures termed as Aggregate Measure of Support (AMS) and its progressive reduction, the provisions in the agreement aim at disciplining trade-distorting support to farmers. To facilitate monitoring, these measures are defined and identified into three categories and stylised as boxes: Green, Blue and Amber on the basis of their impact on trade on an increasing scale and quantified at different base periods. Green box measures refer to services or benefits to agriculture or to the rural community including research and extension services with no time stipulation; Blue box to production limiting programmes to be pegged to the 1992 level; and the Amber box to measures that distort market prices such as price support, direct payment and non-exempt subsidy, pegged to 1986-1988 level and subjected to reduction progressively. Provisions in the agreement establish ceiling on the value as well as volume of subsidised exports. Invoking sanitary and phytosanitary measures shall be based on international standards, guidelines and recommendations to avoid arbitrariness and/or unjustifiable discrimination in their application.

In terms of exports, India is not a major player in the world agricultural commodity market except in the case of a few commodities such as rice, spices, soya meal, cashew, tea and coffee. As there is persistently increasing trade deficit for the country as a whole, increasing net exports of agriculture is a significant contribution to the country's economy. Hence, in the coming years, India has to focus on its agriculture not only to meet the domestic demand but also to increase its export to help the rest of the economy. The

internal market is not adequate enough to absorb all the farm commodities that this country is capable of producing. We, therefore have to look for external markets. Value addition by far is the major opportunity for employment in the rural sector as biophysical resources are limited and access to which is denied to many, on account of the iniquitous distribution in ownership. The value-added products so generated would also have to seek external markets to get them absorbed. Massive entry of India's agricultural products and commodities in the world market is hence imperative for making our agriculture the engine of growth and enhance the livelihood security of the dependent population who are substantially resource poor.

Six years have lapsed since the World Trade Agreement (WTA) on Agriculture has become operative. The experience hitherto is under review by the WTO. Proposals for changes in the Agreement are being considered this year. Proposals for changes should have been sent by December 31, 2000. It is inevitable that opening up of India's agricultural sector to the world market will have implications on prices, incentive structures and various forms of protection. It is time that we take stock of our experience and performance so that we can prepare adequately to meet the challenges ahead. The workshop reviewed the experience so far this country had in the implementation of the various provisions of the WTA; examined the impact of globalisation of agriculture on agricultural production, changes in input efficiencies and influence on livelihood security of the dependent population; identified the challenges and opportunities, more specifically, examined and appraised the role of R&D in agriculture in the changing scenario to take advantage from the globalisation process; and evolved strategies and proposed measures to maximise the opportunities and minimise the impact especially on the livelihood security of the vulnerable sections of the society, and came out with the following recommendation.

Recommendations

- Experience of the last six years has shown that the expected share of the markets of developed countries is yet to be realised by the developing countries. Market access continues to remain restrained on account of tariff barriers and stipulation of sanitary and phytosanitary measures. Through mechanisms such as the Green and Blue boxes as well as through very high tariff barriers (like Japan's 2000 per cent in the case of rice, it is clear that the industrial nations have succeeded in ensuring that the hope for enlarged market access to agricultural commodities from developing countries does not materialise. In contrast, our markets have been opened up. Quantitative restrictions on the import of agricultural products will have to be removed with effect from April 1, 2001. The extent of domestic support provided by India to farming families is far below the prescribed ceiling. We also do not provide export subsidies (in contrast, total farm support in OECD countries increased by 8 per cent to USD 363 billion in 1998).
- Consciously or unconsciously, India entered into an unequal and unjust trade bargain in 1994. There is no use looking back. While being fully conscious of the

* *The National Academy of Agricultural Sciences (NAAS) sponsored a workshop on "Globalisation of Agriculture: R&D in India" which was held at the Kerala Agricultural University, Vellanikkara, Thrissur, Kerala between 2-3 February, 2001 and deliberated on the emerging concerns.*

various implications of the nation's participation in the WTO, the deliberations focused on charting out the preparedness of the nation to take advantage of the opportunities offered by the WTO and to meet the emerging challenges.

- Various concerns, which would have implications on sustainable agriculture and ensuring the livelihood security of the farmers, included factors that enhanced obligatory market access such as tariffication of non-tariff regulations, removal of technical barriers to trade, transparency in sanitary and phytosanitary regulations; minimising domestic support without eroding the livelihood security of the vulnerable groups; promoted export competitiveness; IPR regime that safeguards the interests of the farmers and the conservators of biodiversity. 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.
- In the short run, India's competitiveness is good. We have to enhance it by providing adequate support as the input prices are rising faster than the output prices.
- Seventy per cent of our population derive their livelihood from agriculture and 80 per cent of the farmers are small and marginal category. Our post-harvest and sanitary infrastructure is very poor and massive investment in this area will be essential if we are to ensure a level-playing field in external trade in agriculture. The subsidies and other support measure should be continued by designating these under the Livelihood box to tide over the initial problems but could be revoked at a subsequent time, say, after 10-15 years. Restraints on subsidy to farmers can be overcome by canalising support through Commodity Boards as is being done in the developed countries. But such support is granted not through direct subsidies to facilitating sustainable production through building infrastructure.
- To make use of the provisions under the Green box, an adjustment fund of USD 2.5 billion be created for investment in research technology support, infrastructure building, marketing etc. so that Indian agriculture will be competitive and a level-playing field is provided.
- Provision to bound tariff should be made use of as a special safeguard.
- That the nation's biophysical resource have already been stretched to the limits, and that future agricultural growth is to be sourced from intensification and technological progress, systematic and continuous efforts are necessary to identify and determine the R&D support required in each of the five areas referred earlier in terms of, (a) enhancing competitiveness through cost-effective productivity increases and improvement of quality in the domestic and foreign markets, (b) standardisation of phytosanitary measures, and (c) strengthening R&D institutions and their capabilities. Further, that such R&D support should be mission oriented, technology research has to be integrated with financing mechanisms.
- India's competitive advantage primarily arises from the relatively less expensive labour. By adopting capital-intensive high technology, this advantage will be lost. Therefore, caution should be exercised in choosing the technology.

- Considering the enormous variation in biophysical resource endowment in the country, diversification was seen as a means to improve the trade competitiveness. Small farming systems have to be integrated with diversification process which require work with communities. There is need for policy integration between land, water and crop development factors and financing.
- 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.
- There is need to develop information systems with which Indian agriculture can respond quickly in a globalising phase and that the knowledge gap with respect to the opportunities and liabilities of entering into the WTO is enormous. There must be a cooperative effort between the State, the Centre and various institutions including NGOs and a platform should be created so that the issues identified can be thrashed out regularly.
- There should be stronger interface with trade in the country, who are more aware of the market conditions, demand as well as consumer preference and their services should be made use of.
- There is acute shortage of information with respect to the various implications of the WTO regulations. In the absence of adequate data, state governments are not in a position to take advantage of the various provisions that would safeguard the interests of the farmers and the vulnerable-groups among them. It was, therefore, recommended that WTO Cells be created in the state governments and in the agricultural universities so that relevant information is collected on a continuous basis.
- It is important to prepare a checklist of various elements which constitute the regulatory provisions under the WTO rules so that the states are aware of the kind of information to be generated and made available at the time of negotiations.
- 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.
- Planning of agricultural research should take into consideration the opportunities which have now become available for India to emerge as a major exporter of diverse commodities and products. The foremost requirement in this regard will be greater emphasis on quality of our products. Agricultural scientists for understandable reasons have been preoccupied in the past with the development of technologies which will help to increase production in the interest of food security and self-sufficiency, in general. The high yielding varieties of future must combine high yields

with traits like high protein content and other characteristics demanded by the importing countries such as freedom from aflatoxins.

The Workshop realised that trade policy is an instrument of national economic development policy and it requires structured responses. We have to prepare a blueprint for the future to take advantage of the process of globalisation for which the nation is capable of. And it is time to begin now. We need a vision of the directions in which we should move. Centrepiece 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 globalisation as an uncommon opportunity.