

Section A

Summary and Recommendations

Eight Years of the WTO

Eight years have passed since the World Trade Agreement (WTA), a family of global trade regulating agreements, and its implementation agency, the World Trade Organisation (WTO), came into existence on January 1, 1995. In this time it has become fully apparent that the WTO's principal and stated objective of creating a fair and equitable system of global trade amongst its member countries has not been met. The promise of substantial national economic gain from an increased value of world trade that prompted many developing countries, including India, to sign the Agreements, has been largely belied in the nearly eight year track record of WTO-regulated global trade. This is well documented in a large and growing body of empirical research and analysis. The WTO regime has, while widening the existing gap in economic and political strengths between the developed and developing countries, also brought about changes in national policy/legislation within developing countries that have adversely affected low income and resource poor groups. Nevertheless, developing countries including India are seeking avenues within the ambit of the WTO Agreements of reversing this adverse trend, and of taking advantage of the opportunities offered by the Agreement to expand and diversify their domestic market through trade. A pre-requisite for this is a factual assessment of the actual impact of WTO-initiated policy on production, employment, food and livelihood security, ecological resources, and so on, at the national and state levels. It is this that can shape a national/regional response and a planned transition towards a more open and equitable trading environment.

Importance of a Sustainable Trade Security System for Kerala

Within India, the state of Kerala stands apart in respect of its sensitivity to changes in the national and international trade environment. Its agriculture is marked by the existence of a series of agricultural micro-environments suited to different kinds of mixed farming, and by a large proportion of perennial crops in total agricultural output. More than 80%

of Kerala's agricultural commodities / products are dependant on home and international markets. The State accounts for 45% of the plantation crops in the country which provide daily employment to nearly 4 lakh workers. Nearly 20% of its population depend on plantation crops for their livelihood. Kerala's plantation and field crop mix includes paddy, tapioca, banana, rubber, coffee, cardamom, arecanut, cashew, pepper and coconut. Kerala is also the only State in the country having a substantial stake in all four major plantation crops, viz, tea, coffee, rubber and cardamom. Further, Kerala is a major State in the production of marine products for the international market.

Following the onset of the era of trade liberalization in farm products, as a result of the implementation of the Agreement on Agriculture (AOA) of the World Trade Agreement from 1995 onwards, Kerala's agricultural products have experienced a price crash of unprecedented proportions. The brunt of this crisis has been borne by cultivators belonging to the small and marginal farmer category who constitute a major segment of the rural workforce. Their subsistence depends upon market avenues. In order to assist the State Government in managing the crisis arising from the paradigm shift in the global farm trade regime brought about by AOA, a Commission on WTO concerns in Agriculture was set up by the Government on 31 July 2001, under the Chairmanship of Dr M S Swaminathan (Annexure I). In the order dated 19 September 2001, the composition of the full Commission and the list of commodities of specific concern were included (Annexure II).

The Commission started functioning soon after the issue of the Government orders, with Dr K N Shyamasundaran Nair functioning as Vice Chairman. The Kerala State Planning Commission provided secretarial assistance. The Commission has had five formal meetings. The draft Report of the Commission was finalised at the fifth meeting held at Kovalam on 6-7 November 2002.

The Report consists of 2 parts. Part 1 contains the Summary and Recommendations, followed by the main report which provides the rationale and arguments supporting the recommendations. Part 2 provides the supporting documentation for the main report.

The principal aim of our recommendations is to help the state to build a **Sustainable Agricultural Trade Security System**. In this context it is important to note that a vision

of how to address the crisis in the spheres of employment and production in Kerala and to exploit the opportunities that the new trade regime might offer to a state so heavily dependent on domestic and export markets must necessarily draw on the special resources with which the state is endowed. Schemes for mass employment in Kerala, unlike most other parts of the country, can draw on a labour force whose members are literate, and are socially and politically conscious. A new phase of economic development must take advantage of these special resources, namely, a rich and varied natural resource base, a basic land reform, an educated, skilled and politically conscious work force, and unique achievements in the areas of health and education. A basic infrastructure network has built an urban-rural continuum unique to the state.

The substrate conditions essential for building a sustainable Agricultural Trade System relate to the following parameters:

Proactive State Policy which while building a response to the WTO, must defend and extend the economic and developmental gains achieved through state intervention and public action in the past. The state cannot afford to withdraw in the new, WTO-regulated phase of Kerala's development. It must continue to play a role in public investment (in agricultural extension, and infrastructure development, for example) as well as in protecting the lives and livelihoods of those, particularly the poor peasantry and agricultural labour, threatened by the new trade regime.

- b. Productivity enhancement by bridging the prevailing gap between potential and actual yields with technologies on the shelf.
- c. Quality Improvement through a quality literacy movement for producers and consumers, and by strengthening the infrastructure for sanitary and phytosanitary measures for both domestic and export markets.
- d. Profitability Enhancement through concurrent attention to production efficiency and higher factor productivity, as well as to improved post-harvest technology, value addition and agro-processing. Measures for value-addition will also include organic farming and the production and marketing of organic spices, tea, coffee and fruits.
- e. Sustainability Improvement, through attention to the ecological foundations essential for improving productivity in perpetuity, such as soil health care, water harvesting and efficient use and forest and agro-biodiversity conservation.
- f. Stability of production and income through proactive advice on trends in home and external markets and through appropriate public policy measures like market stabilization fund and insurance.

While the above steps are largely in the domain of Kerala's farming families, labour unions, farmers' and planters' associations and the State and Central Government, the following components relevant to a Sustainable Trade Security System relate to the AOA of the World Trade Agreement. These are:

- Domestic support
- Market access
- Export subsidy
- Trade related Intellectual Property Rights
- Sanitary and phytosanitary measures
- Codex *alimentarius* standards

The impact of these on Kerala's farm trade will call for changes in the Government of India's Export-Import policies, as well as in the renegotiated AoA. The bound rates for different commodities and the determination of import tariffs for the following items need urgent attention on the part of GOI. Even in the most recent EXIM policy, the import tariffs on a range of products specific to Kerala have in a great many cases been fixed at levels well below the bound rate. These are:

- Rubber
- Coconut
- Coffee
- Tea
- Pepper and other spices
- Cashewnut
- Medicinal plants
- Fish and fish products
- Milk and milk products
- Meat and meat products
- Processed foods

The impact of the removal of Quantitative Restrictions (QR's) on the imports of agricultural commodities needs to be assessed objectively. Task Forces on each of Kerala's crops set up under this Commission have made a preliminary analysis of the impact of the removal of QR's. A factor kept in mind by the task forces was that unlike in industrialised countries, agriculture (crop and animal husbandry, fisheries, agro-forestry and agro-processing) constitutes the backbone of the livelihood security system of our country.

Thus, starting with the farm families themselves and extending upto the Government of India and WTO, there has to be appropriate action if a **Sustainable Agricultural Trade**

Security System is to become a reality. Such an Agricultural Trade Security System is vital for Kerala's prosperity, **since under the conditions of Kerala, if agricultural trade goes wrong, nothing else will have a chance to go right.**

Spatial Focus of Trade

Kerala's trade strategy should be based on the following three guiding principles.

First, enlarge **home trade** and pay greater attention to cost and quality for the home market.

Second, impart a **regional focus** with particular emphasis on SAARC and ASEAN countries, so that the trade relationships among neighbouring developing countries is based on a **win-win mode** for all. Kerala, in particular, needs to have mutually beneficial relationships in trade with Sri Lanka, Malaysia, Thailand, Vietnam, Cambodia and Indonesia.

Third, enlarge **global trade**, particularly with countries in the Middle East, Africa, European Union, Russia and CIS countries and North America. This will call for market intelligence and continuous updating of information by the Virtual University for Agricultural Trade (which this report has recommended) in relation to the quantitative and qualitative dimensions of demand and the price structure.

Instruments for Managing Change

Kerala's agriculture is in a phase of transition as a result of the impact of globalisation of economies and liberalisation of trade. As repeatedly emphasised in this Report, this will call for productivity, quality and value-addition revolutions. There is need for effective instruments for managing change, particularly in the following areas.

- Demographic Challenge Attracting and retaining youth in farming
- Technological Challenge Genetic Engineering, genetically modified organisms (GMOs) and Information Technology
- Ecological Challenge Climate, Water, Soil, Biodiversity (Global Conventions on Climate and Biodiversity)
- Economic Challenge World Trade Agreement in Agriculture
- Ethical Challenge Trade Related Intellectual Property Rights (TRIPS);
FAO Treaty on Plant Genetic Resources
- Equity Challenge Social and gender equity – Reaching the Unreached

From Marrakesh to Doha (1994-2002)

Globalization of economies and liberalisation of trade have economic, ecological, ethical and technological dimensions. The 1994 Marrakesh trade agreement in agriculture has proved to be an unequal trade bargain, since it has left industrialised countries much room

for covering their huge farm subsidies under the blue and green box provisions. India has nearly 110 million farm families, as against about 2.00 million farm families in the USA and 7.40 million in the European Union. The average farm size is over 200 ha. in USA and 20 ha. in EU. The producer support estimate per farmer per year works out to US \$ 20,000 in USA and US \$1 4,000 in EU (Figures 1 to 3).

Experience of the last eight years has shown that WTO has no visible agenda for the resource poor farming families. Globalization has proved to be inherently asymmetric in its impact. Countries most dependent on exports of primary commodities have not been able to derive benefit from a “free trade” regime. Developing countries’ share of total green box expenditures went down from 15% in 1995 to 12% in 1999. It is clear that the AoA needs to be redesigned on a pro-poor, pro-small farmer, pro-livelihoods and pro-environment framework. Global institutions like WTO and IMF also need to be restructured in such a manner that they can help to achieve the UN Millennium Development Goals in the areas of hunger and poverty elimination.

In the post-Doha negotiations it is obvious that every country will try to get relaxation from international rules and disciplines to suit their own specific needs. Thus, USA may try to get the green box provisions expanded to cover the very high support being given to a small number of farming families. The European Union may press for exemptions based on the multifunctionality of agriculture. Several developing countries, including India, have been pressing for a Development/Food Security Box. Ultimately, the negotiations may end up in a jungle of exemptions, with the odds weighted in favour of the rich nations.

Thus, the time has come for insisting that rich nations should phase out trade distorting subsidies and provide increased market access to predominantly agricultural developing nations. At the same time, we should realise that trade liberalization without increased investment in agricultural and rural development will not help us to face the challenge of market efficiency. There is hence an urgent need for major investments in the following areas by both the Central and State Governments,

- Soil and Water Conservation
- Rural infrastructure, including roads and irrigation
- Post harvest technology and Markets
- Research and the development and dissemination of ecotechnologies

- Education and health
- Coping with drought and other natural calamities
- Sanitary and phytosanitary measures

Without such investment, no box can help us to face a competitive market.

Recommendations

We recommend the following steps for immediate consideration and appropriate action.

We have first listed a set of recommendations to be implemented at the national level. These begin with a set of strategies that India must in its interest pursue in the post-Doha negotiations. This is followed by a set of Kerala-specific recommendations, which includes recommendations concerning specific agricultural crops.

The Agreement on Agriculture: Negotiating Strategies for the Government of India

The post-Doha negotiations on the revision of the Agreement on Agriculture (AoA) are currently in progress. The modalities of the negotiations are to be finalised by 31st March 2003. A draft paper on modalities prepared by the Chairman of the WTO Negotiating Committee would have reached the Ministry of Commerce, GOI, by 18 December, 2002. The revised AoA is to be finalised at a Ministerial level meeting scheduled to be held in Cancun, Mexico, from 10 to 14 September, 2003. A note ('Modalities for Negotiations') prepared by the Ministry of Commerce, Government of India, in consultation with the Union Ministry of Agriculture, on India's stand is appended (Annexure III). It deals with issues relating to Market Access, Domestic Support and Export Competition.

- *Domestic Support*

It is well known that OECD countries provide subsidies to the extent of one billion dollars per day to their farmers. The USA has further increased farm subsidies in its Farm Bill of 2002. Obviously, these subsidies are being adjusted against Blue box payments and Green box measures which are non-actionable. They do not seem to fall within the purview of Amber box measures, which alone are considered to be trade distorting.

In the current Geneva round of negotiations, it may be useful to propose the following alternatives:

First, all boxes may be abolished and the do's and don'ts with reference to trade distortion and unfair trade practices may be spelt out in clear and unambiguous terms.

Second, as an alternative negotiating principle, **a fourth box relating to Sustainable Livelihoods** (Livelihood Security Box) may be proposed, which will empower developing nations facing the challenge of providing livelihoods to the rural population to place restrictions on imports, where there is convincing evidence that such imports will erode job/livelihood opportunities in their countries. Since over 66% of the population of many developing countries including India depend upon agriculture (crop and animal husbandry, fisheries, forestry and agro-forestry and agro-processing) for their livelihoods, trade which leads to the destruction of rural jobs/livelihoods will further enhance poverty and hunger and will make the achievement of the UN Millennium goals in the areas of poverty reduction and hunger elimination, impossible. The result will be social disintegration because of a further increase in rich-poor divide. Globally, the continuation of the present situation where a few million farm families in industrialised countries, supported by heavy inputs of technology, capital and subsidy, compete with over a billion small farmers, having little access to technology, credit and adequate post-harvest infrastructure, will not help to make free trade an instrument of poverty eradication.

Trade **should not only be free but also fair** to the primary producers in predominantly agricultural developing countries. **The percentage of population dependant on agriculture for their livelihoods should be the major criterion for eligibility for using the provisions of the proposed Livelihood Security Box. The minimum could be 50% of the population.** The idea of a 'development box' has been suggested by a group of developing countries. Such a scheme would include measures that would provide market access for the crops produced by low income and resource poor farmers with higher levels of domestic support for these farmers in keeping with Article 6.2 of the AoA.

Third, **we should avoid making** the very modest help being extended to millions of the small farm families come under the category of "Subsidy". A range of domestic support measures like those relating to infrastructure development, and many other forms of

public provisioning, are non-trade distorting and hence non-actionable. **‘Support for sustainable farming and rural livelihoods’, rather than ‘subsidy’, should be the approach adopted for using the very modest financial help being extended to small producers, who are getting heavily indebted due to the unfavourable cost-risk-return structure of farming.** Policy makers in Government of India who deal with our interests in WTO should be sensitised in such issues.

- *Market Access*

First, all non-tariff barriers coming in the way of access to the markets of industrialised countries should be reviewed and removed. At the same time, assistance should be extended to developing countries to improve their capacity in the area of sanitary and phytosanitary measures as well as the adoption of **codex alimentarius** standards of food safety. Unrealistically high SPS standards are often used to create trade barriers against developing country exports. India and other developing countries must become a part of the process by which SPS standards are decided upon. At the same time we must evolve our own SPS standards for our domestic products as well as imports.

Second, our position is that obligatory tariff reduction should be minimal. We cannot agree to an across-the-board reduction of tariffs on all items. Also, the bound rate of 45% for soya oil deserves to be increased, keeping in view that the overall bound rate for edible oils is 300 percent.

Further, industrialised countries should agree to a substantial reduction in tariff peaks in the case of commodities of importance to the rural economy of developing countries.

Developing countries in which over 50% of the population depend upon agriculture for their livelihoods should be allowed to raise tariffs within certain limits and also impose quantitative restrictions on imports, wherever there is clear evidence that imports will erode or destroy the livelihoods of small farmers and asset-less rural women and men, thereby aggravating poverty.

- *Trade-related Intellectual Property Rights (TRIPS)*

The revised TRIPS should be made compatible with the equity and ethics provisions of the Convention on Biological Diversity and the FAO Treaty on Plant Genetic Resources for Food and Agriculture. In particular, it should contain provisions for the compulsory licensing of rights in the case of inventions of great importance to food and health security, and for benefit sharing with the primary conservers of genetic resources and holders of traditional knowledge. This will help to avoid fear and accusations of biopiracy and to promote mutually beneficial biopartnerships.

- *Geographic Indication*

An objective system of including items in this list should be developed. Historical antiquity of product names, like “Malabar Pepper” should be an important criterion for eligibility to be included in such a list.

- *Trade Security and Farmers’ Well being*

Youth will not be attracted to farming, if agriculture becomes a gamble in the market. Therefore providing assured and remunerative markets for the 500 million farming families in the world should be a major aim of the revised AOA. Sustainable farming systems and satisfied farming families alone can ensure food security for the nearly 8 billion children, women and men who will inhabit our planet by the year 2030.

- *Multi-functionality of Agriculture*

Agriculture influences the livelihood security of about 2 billion persons globally. At the same time, it has profound influence on ecological and cultural security. However, the concept of multifunctionality of agriculture, being advocated by developed countries should not be used to enhance subsidies and erect non-tariff trade barriers in the industrialised countries. **A Code of Conduct relating to the use of the principle of multifunctionality should be developed, if this principle is to find a place in the revised AOA.**

Since agriculture constitutes the backbone of our livelihood security system, **protecting domestic agriculture and the livelihoods of farming families should be the bottom line in our stand at the on-going negotiations.** We should also keep in view the trends

in our agricultural evolution towards increasing diversification and greater production of horticultural and animal products.

In the alignment of countries at the negotiating table, it will be prudent for India to work with those on the side of poverty reduction and rural well-being. We should be in a position to assure minimum income security for farming families, through appropriate tariffs and import restrictions. We should work with like minded countries in ensuring that trade distorting subsidies and non-trade barriers are not used by developed nations under different pretexts, including the possible introduction of the concept of multi-functionality of agriculture.

There are two additional recommendations that fall under the purview of the central government. These are:

- *Tariffication Code and EXIM policies of the Government of India*

The implementation of WTO provisions has necessitated the need for restructuring of Kerala's agriculture. As nearly 80% of the cultivated land in Kerala is under perennial/tree crops, a much longer 'adjustment' period -- at least 5-10 years of limited protection and additional investment support -- to the new trade environment must be provided. During this period the safeguards provided under WTA in terms of imposition of tariff and such other measures should be made use of. This will give farmers in the state time to acquire the necessary trade capabilities. Resources can get re-allocated to enhance the state's competitive ability.

The negotiations preceding the final Uruguay round did not consider the impact of changes in the tariff rates. For example, low tariff rates for Palm oil and Soybean oil have had an adverse impact on coconut oil, and in turn on the price of copra and coconuts. By accepting the maximum tariff rate of 45% for Soybean oil, it has become impossible to have a higher rate for Palm Oil which is itself competing with coconut oil. Any increase in tariff rates would result in switching over to Soybean oil.

Also affecting Kerala's economy are the low bound rates and applied tariff rates for rubber (40% and 25% respectively). Measures are to be taken at the national as well as

WTO levels to develop a Tariffication Code, based on principles of equity and the livelihood security of small farm families.

- *Restructuring of and re-tooling of Commodity Boards*

The various Commodity Boards of the Government of India such as the Tea, Coffee, Rubber, Coconut and Spices Boards, which have done valuable work in the past, have outlived their historical relevance in the context of the new global trade environment. Therefore, we recommend that the Government of Kerala may propose to the GOI the setting up of a **High Level Committee to review the work of the Commodity Boards** both in their common functions as well in their functions specific to the different commodities. The terms of reference to such a Committee should include the steps needed to restructure and re-tool these Boards in a manner that can ensure income and livelihood security to small producers and plantation workers who have been adversely affected by the present trade regime. Further, the Boards should become catalysts of a productivity, quality and value-addition revolution in plantation crops.

Kerala-Specific Recommendations

The Commission had made a few interim recommendations (Annexures IV to VII). The following are some of our major recommendations.

- i) *Constitution of a High Level Standing Committee on Agricultural Trade*

Change in the trade environment can be managed effectively if there is synergy and convergence in planning and action among all the principal stakeholders. They will have to function like members of a **Symphony Orchestra**. To create an Agricultural Trade Policy Symphony in Kerala, we recommend the constitution of a **Standing Committee on Agricultural Trade**, under the chairmanship of the Hon. Chief Minister, with the Hon. Minister for Agriculture and Coir serving as Co-Chair. Principal Secretary (Agriculture) could be the Member-Secretary. All the principal stakeholders within the State like Farmers', Planters' and Labour Associations, Commodity Boards of the Government of India, Kerala Agricultural University, ICAR and CSIR, Consumer Association, Mass Media (printed, electronic and internet) and all the concerned Departments of the Government of Kerala should find a place in the Committee. In addition, the Ministries of Agriculture and Commerce of the GOI may be requested to

nominate senior level officers dealing with WTO issues to serve as ex-officio Members. The following could be the principal terms of reference to this Committee.

- To bring about convergence and synergy among all on-going programmes supported by State and Central Governments and by bilateral and multilateral agencies with a view to derive the maximum beneficial impact from the available resources, from the point of view of trade competitiveness.
- To monitor trends in home and external markets.
- To initiate proactive action, particularly to avoid / mitigate distress to farm and labour families.
- To take steps to shift to an era of precision farming in order to maximise factor productivity and minimise cost of cultivation.
- To promote trade and IPR literacy through the mass media.
- To provide policy oversight to the proposed Virtual University for Agricultural Trade and the reconstituted State Land Use Board.
- To suggest steps on an on-going basis to strengthen the livelihood security of small farm families and agricultural labour.

ii) Mitigating distress

The Committee had recommended in its very first interim report that the State should seek the assistance of the Government of India for initiating a **Food for Wage and Employment Stabilisation in Plantation Crops Programme** under GOI's Sampurn Gramin Rozgar Yojana. Under such a programme, part of the wage will be paid in the form of rice to labour in plantations facing severe economic stress, to avoid retrenchment and closure. We are happy that the GOK has already taken steps in this direction.

Another immediate step is tax and excise duty exemptions to reduce the loss being incurred by plantations and farm families. Again, this is an area where we are happy that the Government had already taken action.

iii) Domestic Support Measures

A range of measures on the trade and domestic production-support front need to be designed to offer income support to cultivators, especially small and marginal cultivators. Such measures are needed not only as price relief and stabilisation measures, but also as measures designed to support and increase production. This package of measures must include the following:

- Statutory MSP to be extended to field and plantation crops in Kerala. Such a measure is fully WTO compatible as has been noted by the High Level Committee on a Long Term Grain Policy for India headed by Abhijit Sen, which recommended the continuation of the MSP-based system of procurement of foodgrains by the Food Corporation of India.
- With respect to trade, variable tariffs can be used to protect cultivators against sharp fluctuation in international prices and import surges. This measure has also been recommended in respect of food grains by the Abhijit Sen Committee.
- Re-imposing Quantitative Restrictions which can be done within the framework of a Livelihood Security Box. Indeed, it has been argued that direct import control measures, like QR's on the import of agricultural products, in pursuance of the objective of food security and rural development is permissible under the AoA even in its present form.
- Introducing a range of policy measures intended to improve production and contribute towards a sustainable income to cultivators. These could include crop insurance, a range of imaginative rural credit services, new forms of providing agricultural extension services, facilities for marketing, storage and processing, and encouraging marketing cooperatives.
- Initiating multi-disciplinary policy oriented research on a) the various forms of domestic support that are required to keep Kerala's agriculture and agricultural trade buoyant b) the compatibility of such measures with WTO stipulations, and c) crafting negotiating strategies that could institutionalise such measures in the appropriate WTO Agreements.
- Initiating a well planned and massive programme of replanting and rehabilitation of all perennial crops such as Coconut, Cashewnut, Rubber, Tea, Coffee and Cardamom, in a manner that the entire area can be covered in a period of 10 to 15 years; and establishing a Revolving Fund for revitalization and rehabilitation of the above crops, with the involvement of NABARD, NHDB, Commodity Boards and the State Government.

iv) Enlarging Domestic and Export Markets for Marine Products

The following measures need to be urgently implemented in the area of fisheries:

- Enhance the quality of domestically consumed fish and launch a quality awareness campaign among fishers, traders and consumers.
- Undertake a multi-stakeholder study of the current subsidies prevailing in the fishery sector, so that support which is non-actionable under the SCM agreement can be provided for fostering sustainable resource rejuvenation and management programmes.
- Create an up-to-date database that can help in taking informed decisions.
- Initiate **aquarian reforms** that will restrict the rights to own fishing vessels only to those who actually fish.

- Undertake measures for environmental protection and sustainable management.
- Retrain the Fisheries Department staff in eco-fisheries and **low external input sustainable aquaculture.**

In the following crops, issues like QR's, variable tariffs, and statutory MSP should be reviewed from time to time by the Government of India in consultation with the State Government.

v) **Coconut**

The coconut crop is vital for the nutrition and livelihood security of most of Kerala's population. This crop has experienced considerable price instability as a result of the large scale import of palm and soyabean oils. Coconut also suffers from several serious diseases and pests including root wilt and coconut mite. Therefore, there is need for the diversification of the income of coconut growers through value addition to all parts and products of the plant. Technologies are available for this purpose as would be observed from the recommendations of the Task Force included in Part 2 of the report. We recommend the formation of Small Holders' Coconut Estates in order to provide the necessary processing, packaging and marketing facilities to small producers. This will give them the advantages of scale in the field of post harvest technology. At the same time it is important to raise the import duty level at least to the level of the bound rate. Concurrently, there is need to improve the productivity of coconut in Kerala through extensive replanting with superior varieties including hybrids and improved management. Without such productivity improvement, the cost of production will always remain high and the margin of profit low.

vi) **Plantation Crops**

In the case of plantation crops, the state should develop a comprehensive policy framework embracing all aspects including land use and land reform, ecology and environment, production and productivity, trade and marketing, investment support, taxation, legal institutions and the responsibilities of local bodies. **A high level expert body may be set up for preparing such a comprehensive and integrated policy framework.**

a) **Rubber**

The removal of QR's on natural rubber (NR) is major reason for the sharp fall in the domestic market price of this commodity. Rubber is grown overwhelmingly by small cultivators. With an expanding automobile industry (cars, scooters etc) there will be increasing home demand for NR. It is therefore important to make a projection of demand and supply at least until 2015 in order to have a balanced policy comprising of home production and selective imports so as to meet the demand without sacrificing the interests of small scale rubber producers. We recommend that the GOK and the Rubber Board may set up an expert group comprising representatives of both producers and consumers of NR in order to develop a perspective plan for the production, marketing, export and import of NR. In addition there is need to re-categorise rubber as an agricultural crop so that it can be brought within the AoA.

b) Tea

The crisis in the tea industry began in the early nineties due to the collapse of the former Soviet Union and the shift from rupee to hard currency payments. The industry in the past did not place as much emphasis on quality, variety and value-addition as has become necessary under a competitive trade regime. Kerala tea fetches lower price even in the home market due to poor quality. The future therefore lies in the improvement of both productivity and quality as well as the manufacture and marketing of value-added products like instant tea, tea bags, herb tea, etc. Solar drying of tea should be encouraged.

c) Coffee

Here again, we will have to place emphasis on productivity, quality and variety. International prices vary according to the output in countries like Kenya, Colombia and Brazil. *Robusta* coffee, by virtue of high solubility, is well suited for the manufacture of instant coffee. Coffee pests will have to be managed in a manner that there are no pesticide residues in the final product. Small farmers will have to be provided with facilities for drying on a self-help group basis.

d) Spices and Pepper

There are untapped opportunities for value addition in the case of spice crops. Pesticide residues should be strictly avoided. Quality control and brand names are important. The production and marketing of organic spices should be encouraged. Also, Malabar pepper is a fit case for recognition under the principle of Geographic Indication.

e) Supply management through participatory buffer stocking

A modification of the Rural Godown Scheme of the Government of India can be developed by the Union Ministry of Commerce in the case of plantation crops. This will help to avoid both distress sales and price manipulation. Such a system is best maintained by farmers' associations/ cooperatives, with support from Government for building the needed infrastructure.

f) Preventing misuse of import for re-export

The provision for import of tea for re-export after value addition is often misused, much to the detriment of Kerala's growers. The procedure needs careful review jointly by GOI and GOK, so that the minimum value addition is atleast upto the value of the normal import duty. A good idea is being undermined by unscrupulous practices. Hence, there is need for a Code of Conduct in relation to imports for value addition and re-export.

g) Agri-export Zones

In our interim report, we had given detailed suggestions for converting the six Agricultural wholesale markets developed with support from the European Commission into Agri-Export Zones. We recommend that this step may be taken up immediately.

vii) **Herbal Medicine and Ayurveda**

Two potential high growth areas for Kerala deserve special attention. The first is herbal medicine and ayurveda and the second is tourism. Some of the steps needed in realising the untapped potential in these two areas are described below.

- Genetic Resources Conservation and Sustainable Use

A priority step relates to the strengthening of *in situ* and *ex situ* conservation of medicinal plants and the establishment of Seed Banks in the case of plants in demand for commercial use. Due to direct collection from their native habitats, many medicinal plants find a place in the Red Data Books of the Botanical Survey of India and IUCN (The World Conservation Union), thus indicating that they are threatened with extinction. The cultivation of plants in demand in the Ayurveda system of medicine by tribal and rural families on contract with appropriate pharmaceutical companies will help to foster organised sourcing of raw material. This will also help to strengthen the livelihoods of tribal and rural families. The cultivation of medicinal plants for which there is a market, based on assured buy back arrangements, could be an important component of Kerala Governments' programmes for tribal families.

With the increasing global acceptance of herbal systems of medicine, the demand for medicinal plants has been growing by leaps and bounds within India and outside. Over 95% of the medicinal plant species used by the Indian industry as Ayurvedic and herbal medicines, cosmetics, healthcare products etc., is collected from the wild. Indiscriminate destruction of forests together with unscientific extraction of the plant parts and overexploitation for export purposes etc, have led to the extinction of many valuable medicinal plants. Many others are endangered. A priority step relates to strengthening of the medicinal plants resource base by promoting *in situ* and *ex situ* conservation and large scale cultivation of medicinal plants with the involvement of tribal families, NGOs, farmers, corporate bodies etc. Formation of Societies at different levels involving representatives of Ayurvedic medicine manufacturers, farmers NGOs, cultivation experts, professional raw drug collectors etc, will facilitate demand-based cultivation with a buy-back arrangement. The Society should take care of imparting technical know-how to the cultivators, supplying genuine planting materials, establishing nurseries and seed banks

for propagation, collecting requirements from various pharmaceutical companies and marketing the produce at reasonable price.

- Maintaining the purity and authenticity of Ayurveda

Steps will have to be taken to promote quality control and certification in the case of Ayurvedic medicines. Research will be needed for the validation of claims and for ensuring that the claims printed on marketing labels are rooted in scientific data. Medicinal rices like *Navara* can be marketed abroad, if verifiable characteristics are listed on the label. If there is an effective certification agency, a suitable brand name can be given, as for example “Herbal Cures from God’s Own Country”.

- Growers’ Associations

In order to give the power of scale to small growers of medicinal plants, Medicinal Plants Growers’ Associations, each covering about 100 ha, could be formed on the model of Self-help Groups. Capacity building in the areas of cultivation and marketing will have to be organised. Such Growers’ Associations can enter to a Memorandum of Understanding with companies with regard to sourcing of raw material for drugs. Herbal Estates could also be promoted for bringing about an end-to-end approach in relation to the cultivation, processing, packaging and marketing of medicinal plants and herbal medicine.

- Herbal Sanctuaries

Areas rich in medicinal plants can be developed into **Herbal Sanctuaries**, so that this unique biological wealth can be safeguarded and conserved for posterity.

- Herbal Biovalley

It would be desirable to develop the region extending from the Silent Valley Biosphere Reserve upto Wayanad as a **Herbal Biovalley**, on the model of the Silicon Valley for computer software. The Herbal Biovalley should provide the biological software essential for a dynamic medicinal plant industry. The infrastructure necessary for seed multiplication including tissue culture facilities, establishment of nurseries of elite material, validation and certification and producer-oriented marketing and other centralised facilities to facilitate efficient decentralised production, will have to be

provided in the Herbal Biovalley. We suggest that GOK may constitute a Project Design Team consisting of experts from Kerala and representative of the Central Medicinal Plants Board, and Bioresources Board, as well as NABARD and APEDA to prepare a Business Plan for **the world's first Herbal Biovalley**.

- Protection of Plant Varieties and Farmers' Rights and Biodiversity Acts

The already established Kerala Biodiversity Board should undertake an intensive programme of **Genetic Literacy**, in order to acquaint primary conservers on their rights relating to recognition and reward from the provisions of the Plant Variety Protection and Farmers' Rights Act, as well as the provisions relating to prior informed consent and benefit sharing provided under the Biodiversity Act, recently approved by both houses of Parliament. It would be useful to promote a cadre of "**Barefoot Legal Advisors**" to help to spread such genetic and legal literacy among the tribal and rural families engaged in the conservation and enhancement of agro-biodiversity. This will help to avoid biopiracy and promote symbiotic biopartnerships.

vii) Tourism

Kerala's unique advantages in tourism are well known. It is the only State in the country capable of launching a dynamic programme of home and global tourism which caters to the needs of health, spirituality and eco-tourism. Tourism related to health (ayurveda), spirituality (like Sabarimala, Guruvayoor, Malayattoor, Cheramaan Mosque at Kodungalloor) and nature (game sanctuaries, sea resorts etc) offers considerable untapped potential. In addition, there is scope for promoting a "Holidays on the Farm" programme in plantations as well as in Kuttanad to provide urban youth an opportunity for experiencing farm operations. The infrastructure in all these areas needs strengthening. **Specialist groups can be set up in these 3 areas of tourism to draw up detailed Business Plans.**

Ayurveda is unfortunately being exploited as a tool for promoting health tourism by many persons/ organisations who are interested only in immediate profit and not in long term reputation. This tendency will have to be curbed, if Kerala's unique heritage in Ayurveda is to retain its high reputation in perpetuity.

viii) The Role of the Media

The media has a special responsibility in reporting on the WTO and its impact, and in putting this information in the public domain. This is particularly so in a state where newspaper readership and media consumption is so widespread, and the media already so highly sensitised to livelihood concerns. Unique to this Commission, which would normally be expected to represent government/private concerns, is its recognition of the media as a critical agency that is a part of the strategy to meet the challenges that WTO-regulated trade regime. Some of the measures which could make for a productive media-government-public engagement include:

- The setting up of a **WTO Media Cell**, which could perform/coordinate more than one task. It could handle regular media contacts plus perform the role of a clearing-house of information pertaining to the WTO and Kerala. The Virtual University and concerned departments and ministries could feed information to the cell, which could be made available to interested media through regular information briefs, and which can also be put on a web-site.
- For the general media, the Media Cell must put out briefs, hold regular briefings in different parts of the state, make officers and specialists available for comment and/or interviews. In a state with such innovative and evolved channels of communication, the Cell could use a variety of techniques to inform writers and journalists across a range of publications.
- Over the long term, the Media Cell could also help to build and train a core group of specialist WTO writers. This would help the development of strong and informed writing on WTO related issues and their global, national and regional dimensions.
- Documentation of publications on the WTO, including books, journals, newspaper reports, magazines, etc.

We suggest that the Media Cell be set up immediately to provide authentic information on the ongoing post-Doha negotiations.

ix) Sanitary and Phytosanitary Measures

The GOK and GOI should participate actively in determining **the International Standards for Phytosanitary Measures**. Otherwise, the standards may come in the way of our exports. In addition, the following steps are needed urgently.

- Strengthen post-harvest infrastructure.
- Improve the sanitary conditions under which food is processed and animals meant for milk and meat are reared.

- Strengthen the capacity of State Government Institutions in relation to quarantine measures, sanitary and phytosanitary measures and codex alimentarius standards of food safety.
- Launch a **Quality Literacy Movement**, and train at least 2 men and 2 women members of every Gram Panchayat as **Quality Managers**.

x) **Trade Entrepreneurship Facilitation Service**

A one-stop information centre should be established in each district of Kerala to provide integrated information to educated women and men on the opportunities now available for remunerative and productive self-employment, as for example the establishment of Herbal Parks, Agri-Clinics and Agri-Business Centres, Food Parks, Eco-Enterprise Parks, Agri-Export zones, etc. Such Trade Entrepreneurship Facilitation Service Centres can be established in Universities or other appropriate institutions. There is also need for establishing eco-entrepreneurship training centres, which can promote the concept “**Good Ecology is Good Business**”. In addition, Venture Capital facilities should be made available to entrepreneurs engaged in small-scale enterprises. A restructured Small Farmers’ Agri-business Consortium could probably run this single stop Facilitation Service with support from the Central SFAC.

xi) **Women and Farm Trade**

Women play a key role in many export industries like cashew, coir, prawn, tea, etc. There is need to strengthen their role by paying specific attention to knowledge and skill empowerment and capacity building. They can play a leading role in programmes relating to the Virtual University for Farm Trade. At the same time, the health hazards associated with women specific operations, as for example cashew shelling, prawn peeling and coir rope making, need urgent attention. For attending to all issues related to women in Agriculture including legal rights in an integrated manner, it would be useful to strengthen the **Centre for Gender Concerns in Agriculture set up by the Kerala Agricultural University**, with support from the National Agricultural Technology Project (NATP) of the Indian Council of Agricultural Research.

xii) *Reorganisation of State Land Use Board*

Farm families need proactive advice on how to match production with potential market demand. In the case of perennial crops, there is limited scope for frequent alterations in

land use. However, there is need for such advice in the case of annual crops and medicinal plants. For this purpose, the existing State Land Use Board should be revitalised and reorganised in such a manner that proactive advice can be given to farm families on land use during the south-west and north-east monsoon periods based on the following factors.

- Farming systems (crop, livestock, fish and agro-forestry) which will be most efficient under the given soil, water and climatic conditions
- Short and medium range weather forecasts (the country has developed considerable capability in this area)
- Projected market demand (both home and external markets)
- Cost of production, risks involved and expected return
- Potential for on-farm and non-farm livelihood generation, so as to maximize income and employment per unit of land and water.

If such advice is given at least a few weeks before the sowing season, a proper match can be achieved between production and potential market demand. Uneconomic market interventions can then be avoided. The agro-ecological potential of every village can be utilized in an ecologically and economically optimum manner. Seed Banks of alternative crops will have to be established at the local level.

The reorganized Land Use Board should also be able to develop contingency cropping patterns to suit different rainfall and water availability patterns. Thanks to the long-range weather data available with the India Meteorological Department, it is now possible to develop computer simulation models of likely deviations in monsoon behaviour. These can be used for formulating land use advice based on GIS maps, which also take into consideration the moisture holding capacity of soils, physiological efficiency of crops, home needs and market demand.

We should promote land use based on considerations of both ecological sustainability and economic efficiency. Since land use decisions are also water use decisions, land and water care and use are best dealt with in a simultaneous and interactive manner.

There have to be structured linkages between the Virtual University and the State Land Use Board. It should however be recognised that the restructured Land Use Board will

be able to offer only general advice to cultivators of perennial plantation crops, particularly with reference to inter-crops. However, it can provide more market, season and agro-ecology specific advice to farmers cultivating annual crops.

xiii) Organic Farming

The Government of India has decided to set up a National Institute for Organic Agriculture which will have the authority to undertake certification of organic products. Kerala is a national leader in the production and marketing of organic spices, tea, pineapples, banana, medicinal plants and other farm commodities. It also proposes to undertake the production of organic rubber specially for the manufacture of condoms for use in the fight against the dreadful HIV/AIDS menace. Therefore, Kerala is an ideal location for the proposed National Institute for Organic Agriculture and Certification and the associated certification agency.

About 200 hectares of land ideal for the location of this Institute is available with the Kerala Agriculture University at Thiruvazankunnu, Palghat district. It is suggested that GOK may offer to GOI land and other facilities for the proposed Institute. This will help to strengthen the organic farming movement in Kerala and help farmers to produce health foods and value-added farm products for internal and international consumption.

xiv) Clean Energy Sources

We recommend that **the Government of Kerala may prepare a project for financial support from the Climate Convention Fund, operated by the Global Environment Facility** for introducing on a large scale solar energy devices in drying plantation crops like tea, coffee, pepper, etc.

xv) Commodity Market and Commodity Exchange

There is need to amend the Forward Contracts (Regulation) Act of 1952, since it was enacted under conditions of serious food shortages. Our commodity markets, both physical and futures, need review. It will also be to the advantage of the farmers of India, if the Central and State Governments agree on an **Indian Common Market**, and remove all barriers relating to inter-state movement of farm commodities. This must be done after a consultative process amongst state governments, as interstate taxes are revenue

earning measures levied by states in the Indian federal system. The Indian Common Market catering to a population of over a billion will serve as a buffer against violent price fluctuations arising from disturbances in the overseas markets.

xvi) Krishi aur Udyog Vigyan Kendra

There is need to expand facilities for a continuous updating of skills and information in relation to all aspects of production, processing and marketing among farm women and men. For this purpose, it will be useful to establish in every district a Krishi aur Udyog Vigyan Kendra, with specific capacity in imparting quality and trade literacy. There is provision in the Tenth Plan Budget of ICAR to establish one KVK in every district. It will be useful to develop the existing KVK's also to deal with non-farm employment with the help of CSIR and the Union Department of Small Industries. In view of the growing importance of Ayurveda and herbal medicines, it will be useful to set up a Krishi aur Udyog Vigyan Kendra at the Kottakkal Arya Vaidya Sala.

xvii) Consortium of Innovative Farmers for Kerala's Agricultural Transformation

A speedy method of stimulating the needed productivity, quality and value-addition revolutions in crops of value in home and external trade, is to build on successes. Numerous small farm families have adopted innovative methods of developing and adopting perennial-annual crop farming systems, which yield maximum profit from the available land, without ecological harm. Many of them have been recognised through awards given by the State Government, Commodity Boards as well as other prestigious awards like Malayala Manorama's Karshaka Shree. It will be useful to expand the extrapolation domain of the experience and skills of such innovative farmers. It will hence be useful to form a Consortium of Innovative Farmers for Kerala's Agricultural transformation to give leadership to the productivity, quality and profitability revolutions in Kerala. The members of such a Consortium should be practising farmers with acknowledged mastery of innovative and sustainable agriculture and whose only livelihood is farming. The Consortium could be chaired by the Minister for Agriculture.

xviii) Establishment of a Virtual University for Agricultural Trade

One consequence of trade liberalisation is that farming is becoming highly knowledge and information intensive. Enhancing trade competitiveness is a must. Hence, there is need for a continuous updating of the information available to farmers and planters on all

issues relating to domestic and global trade. Information will have to be provided on quality related regulations such as sanitary and phytosanitary measures and codex alimentarius standards. Quality, trade and patent literacy will have to become widespread. **Such a knowledge and information empowerment programme in farm trade should reach every farm family in Kerala and should include the excluded in terms of information empowerment.**

To provide the knowledge and data inputs for all the above proposals we suggest **the establishment of a Virtual University for Agricultural Trade as a 21st century institution, based on the ongoing Information and Communication Technology revolution in Kerala.** A computer-aided and internet connected Virtual University can be established on a hub and spokes model. The hub can be located at an appropriate location like KAU, with the spokes being located in every district. The hub and spokes can be linked to Television Channels and Community Radio Stations, so that relevant information reaches every farm household every morning.

The effectiveness of the Virtual University for Agricultural Trade will depend upon the quality and timeliness of the dynamic (ie, time and location specific) and generic information provided to the stakeholders. The KAU has prepared a draft plan for the proposed Virtual University which is appended in Part II of this Report. It would be useful to convene a Brainstorming Workshop with the participation of **data generators and providers** (like ISRO, IMD, KAU, APEDA, NDDB, NHDB, Commodity Boards, Ministries of Agriculture, Commerce and Foreign Trade of GOI, ICAR, CSIR etc.), **data seekers** (farm families, planters exporters, womens' groups, traders, etc), **information managers** (ICT specialists, media representatives, extension specialists, etc), **policy makers** (concerned secretaries to Government and Vice-Chairman, State Planning Commission) and representatives of UNDP and other potential funding agencies. A Business Plan may be finalised at this workshop. It will be appropriate to get the Virtual University for Agricultural Trade inaugurated by the Hon.Chief Minister on January 26, 2003, since the sooner steps are taken for the knowledge and information empowerment of producers, traders, exporters and consumers, the more speedily can an effective Trade Security System be put in place.