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WTO AND AGRICULTURAL POLICY IN KARNATAKA

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PREFACE

The Ministry of Agriculture, Government of India, had undertaken a project in two phases to analyse the Indian Agricultural Policy Matrix across states and sub-sectors of agriculture. The first phase involved the analysis of agricultural policy across the states and preparation of agricultural policy agenda for the participating states whereas, the second component involved agricultural policy in the context of WTO. This component is being coordinated by the Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad. The present study deals with the WTO and Agricultural Policy in Karnataka as a part of the second component and brings out the challenges in the face of WTO for the agricultural sector. The tudy therefore focusses mainly on Agricultural Policy in the context of World Trade, organisation and changes thereafter in the economy of the State. Earlier, Dr. R.S.Deshpande had worked on the report of WTO Cell of Government of Karnataka and had touched some of these issues marginally. This study provided an opportunity to sharpen the discussion on WTO and initiations on Agreement on Agriculture. I am sure that this will be quite useful to the main study being compiled by the Centre for Management of Agriculture, Indian Institute of Management, Ahmedabad. I am sure that this discussion will be useful to researchers and policy makers in the area of the Study.

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Prof. Gopal K. Kadekodi, Director of our Institute has encouraged the study from the very beginning. We are grateful to him for this encouragement. My colleagues Dr.M.J.Bhende and Dr. P.Thippaiah have rendered many useful suggestions and we could incorporate some of them. We are grateful to them for their indulgence. I am also grateful to Ms. Prachitha, J. for her ungrudging research assistance throughout the study in collecting the data, putting the tables together and collating the material. Mr. M.K. Mohan Kuar typed various drafts of the study. We are grateful to him for his help. Needless to add that the usual disclaims apply.

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CHAPTER I

INTRODUCTION

Agriculture sector of Karnataka has been characterised by intermittent phases of growth and stagnation. It is a matter of deep concern as this sector relates directly to the overall growth performance of the state economy. Efforts, both at policy and at implementation levels, are being made to overcome the constraints and encourage growth boosters. The constraints mainly relate to efficient utilization of natural resources, existing infrastructure facilities, forward and backward linkages, and allied supportive activities. Besides these, current liberalization process has led to the emergence into prominence the role of allied sectors, e.g., horticulture, floriculture, fisheries, agro-processing etc. These sectors require better quality of supportive infrastructure for sustained development and only then can contribute significantly to the growth of Karnataka's economy.

Karnataka State has a typical composition having a large share of its area under severe climatic constraints with a highly diversified agricultural sector. The state has a traditional work outlook and hence, could not effectively participate in the industrial changes. Due to this it could not make strong forays in industrial development except in the regions surrounding the cities of South Karnataka. Typically, the state has a large proportion of poor located in rural areas among the agricultural labourers, Scheduled Castes, and Scheduled Tribes. Despite these constraints, the economy is quite resurgent, having an extremely intense potential for growth. The fact that the state has the largest share of drought-prone areas of the country and higher than the country's share of poor have not deferred the state from achieving better rates of reduction in poverty ratio. The high density of low value and high-risk crops typifies the Sate agriculture. On the contrary and at the same time, the state has entered in a big way in to high-tech agriculture, only next to a few other states in the country.

Karnataka's recent emergence as an important partner in boosting up the export growth of the country has also been underlined. As history tells us, Karnataka has always taken the first initiative on many occasions be it pragmatic land reforms, democratic decentralisation, well-designed anti-poverty programmes, understanding human development (through HDI) at desegregated level, fresh initiatives in rainfed agriculture or rigorous participation in international trade. In most of the cross-section comparisons across states, Karnataka occupies the unenviable position at an average or at the median level. From one point of view, this can be interpreted as an average response to the developmental initiatives and not sliding down in the position despite the accute constraints faced. From another point of view, this can indicate inability to climb up in the developmental hierarchy despite remaining at the average level for a long time. Probably, the developmental efforts are so critically managed that the state continues in the position without sliding down in the hierarchy and at the same time unable to climb up in comparison with other states of the country. This directs us to an obvious policy conclusion that it is high time to focus on a fresh look at the developmental efforts with strong initiatives to cross the barrier of being at an average level for a long time. In the liberalised economic scenario, such impetus should come from private investment as well as efforts towards participating in the market with vigorous market drives. That requires placement of growth in the most crucial sectors (after locating such sectors) that hold ahead a promise and finding out new investment avenues in similar areas. The efforts, therefore, must be directed towards optimising the value added and at the same time not losing the human face of development.

1.1 Policy Framework

1.1.1. Overview of the State Agricultural Policy 1995

The Agricultural Policy Resolution (hereafter referred to as policy) adopted by the Government of Karnataka in 1995 (GoK 1995) is, by and large, based on the following guidelines:

a) Land and land use policy to improve growth prospects.
b) Policy to improve yields and achieve self-sufficiency in food grain production.
c) Policy towards increasing the availability and improving the efficient use of scientific inputs and other supporting services like credit.
d) Policy to provide adequate research, education and extension support for accomplishing b) and c) above.
e) Policy to reduce regional imbalances in agricultural development within the state by identifying the needs and growth potentials of different sub-regions based on agro-climatic conditions.

f) Policy to sustain the growth in output and yields through creating proper marketing and pricing structure.
g) Potential for growth in other sub-sectors.

The agricultural policy resolution of Karnataka State emphasises that agricultural production policies need to aim at achieving higher growth rates, which would help in meeting the requirements of the state. The objective of the policy documents was to spell out a clear direction for strategy to create a prosperous rural society in Karnataka. It aimed at spurring growth in agriculture and allied sectors by taking advantage of opportunities opened up by trade at national and global levels in an overall environment of economic liberalisation. The policy document assumed that the growth in agriculture would provide a momentum to growth in other sectors through its backward and forward linkages. The nature of growth envisaged was expected to generate more employment and cut down poverty in rural areas in due course. It was also aimed at promoting efficiency in the use of resources simultaneously protecting environment.

The state's policy addresses the issues as well as solutions compatible with economic realities. It displays boldness in talking about phased reduction in subsidies by evolving a free market-oriented agricultural system capable of fending for it. It also promises adequate state funding for crucial sectors, including infrastructure, while creating conditions for the private sector to play a greater role in most areas concerning agriculture and related fields. Some of the progressive measures delineated in Karnataka's policy statement are not adequately emulated by the centre in its National Agricultural Policy Document (GoI 2000) as well as other states. These include fixation of realistic water and power rates; reversal of the declining trend in agricultural investment; ensuring free and fair play of market forces including introduction of futures market in agriculture; alteration of land laws to permit land lease by farmers among themselves; and legalising contract farming by food processing units.

The Karnataka policy favours the state's stand on granting industrial status to agriculture while the national agriculture policy (GoI 2000) is vague on this issue. However, the state's policy lays down a relatively guarded approach towards this issue. While maintaining that giving agriculture the status of industry is the ultimate goal, it envisages this objective to be achieved gradually. In the transitional period, the strategy should be to provide agriculture with appropriate modifications, incentives and safeguards as of the type available to industry, ensuring elimination of discrimination against agriculture in the matter of credit, costing, returns to investment, infrastructure, markets, exports and research and technology. It also wants foreign capital flow into agriculture and allied fields.

Declining investment and capital formation in agriculture are key factors for poor realisation of the sector's real potential. This is also an important reason for unabated poverty in rural areas. The Karnataka policy suggests a solution for finding the wherewithal for additional private and public investments. While it proposes that private sector investment be financed through institutional credit and farmer's own funds, it feels that public sector investment should be arranged through normal government allocations. This is besides selling off and disinvesting in state-level public sector enterprises and appropriate pricing of water and electricity. Such ideas, merit attention from both central government and other states as well.

The State Government had also constituted a cabinet sub-committee under the Chairmanship of Hon'ble Minster for Agriculture with 10 other Minsters of various departments as members to oversee the implementation of State Agricultural Policy. In the context of liberalisation and opening of the Indian Economy, the Government had identified nine important areas where further scope existed for improvement: a) agricultural research and adoption of improved technology; b) protection of yield levels already attained and bridging the yield gap between potential and actual yields to attain higher productivity in all the ten agro-climatic regions; c) hastening the pace of Integrated Watershed Development; d) cost effective land development, and water management techniques, etc.; e) extension services; f) input supply and farm mechanisation; g) rural credit; h) horticulture including Floriculture, Dairying, Poultry, Meat, Wool, Fisheries and Sericulture; i) agricultural marketing infrastructure, processing, etc; j) organic farming; and trade polices with particular reference to input and output.

1.1.2. Karnataka Agriculture Commission

The Government also felt that a new direction and thrust to the state policy on Agriculture and allied activities need to be given to meet the above challenges. In April 2000, the government set up the Karnataka Agriculture Commission. The immediate task of the commission was to identify missions for bridging the gap between actual yields and possible yields in different Agro-climatic zones of the state. During early 2000, the government held an Agro Summit at Dharwad to set the direction for growth in agricultural sector.

In December 2000, the Agriculture Commission submitted three short-term reports focused mainly on three areas (Deccan Herald, Bangalore, 27 December 2000):

- The area under cotton had come down from 12 lakh ha to six lakh ha in the state due to enormous pest problems, plant protection costs and crop failures. Biotechnology seems to provide solution to this problem through BT cotton hybrids. If BT cotton is adopted by the state, an important commercial crop would be rehabilitated, production costs would be lowered, and pollution problems would be reduced. The agricultural universities should directly involve in testing the technology in their own research stations and monitor the testing elsewhere in the state.

- The benefits of agri-biotech research must be used to improve all farm pursuits based on crops, livestock and fisheries. The Commission has suggested setting up a common Agriculture Biotechnology Research Team (ABRT) for coordinating and monitoring all research in biotechnology. It has also suggested setting up Karnataka Biotechnology corridor to generate more wealth and employment opportunities. For this requirement, a suggestion has been made to seek non-resident Indian leadership for collaborative projects, advance training of scientific manpower and reinforcement of resource base.

- There is a need to double rice productivity in the state as the requirement would be around 73 lakh tonnes by 2025. In this context, the newly evolved and tested hybrid rice offers a good opportunity, the report said.

- Efforts should be made to negotiate public and private sector partnership in the interest of farmers and consumers with suitable networking arrangement for sharing ideas and information and exchange of materials.

- Some of the recommendations made to make agriculture more dynamic and efficient with rice as a base, includes a) formulation of suitable options for diversification for each region; b) breaking the yield barrier; c) building farmers' awareness; d) enlisting cooperation of private agencies; and e) ensuring a well-planned hybrid seed production programme.

1.1.3. Biotech Policy

In recent months, Karnataka's new Biotech Policy is aiming at carving a niche for it in the emerging area. The state government has set up a Rs.10 crore Institute of Bio-informatics and Applied Biotechnology (IBAB) at the Information Technology Park in Whitefield. The state government and ICICI, each contributing Rs. 5 crores are funding the institute. The institute will not have an incubator fund *per se*, but incubate start-ups through a well-equipped laboratory space and introduce venture capitalists who will finance these initiatives when they are ready to scale up.

The IBAB is the first one of the mini-biotechnology parks. The institute will also set up various research centres and focus on bio-informatics, genetics and genomics, three areas that have huge potential in the future. Initially, however, it would focus on areas like agriculture and food biotechnology, while later on, other areas like bio-fuels, vaccines, biopharmaceuticals, agri-biotech and environmental control would be taken up.

Biotech corridors are being planned in different parts of the state. The first corridor of 10 kms arc will be on the outskirts of Bangalore located on Bellary road. Similar plans are afoot in the Mangalore-Manipal belt, Hubli-Dharwad-Belgaum belt, where biotechnology and information technology will share space in knowledge parks. The corridor (on the outskirts of Bangalore) will house a host of biotechnology companies both indigenous and multi-national companies. Necessary land and other infrastructure facilities will be provided to them for setting up their base for research and manufacture. Further, as part of the biotech corridor initiative, biotech entrepreneurs will be encouraged through necessary financial and technical incentives from the state government. When biotech companies across the country will avail the facilities it is expected to generate the need for greater number of qualified professionals.

1.2. Review of Agricultural Performance

Agriculture and allied activities account for 37 per cent of the state income of Karnataka, and 69 per cent of the population of the state is engaged in this sector. Within the sector, crop husbandry account for 34 per cent of the output, 32 per cent of the state income and 25 per cent of the employment generated by the sector (GoK 1998). There is some evidence of shift of workers out of agricultural sector (Lewisian shift), but this movement is not very sharp. It is also accompanied by the declining share of State Domestic Product (SDP) generated from agricultural sector, and at a faster pace than the change in the workforce. Consequently, the SDP per worker in the sector is declining in real terms. The share of agriculture in Gross State Domestic Product (GSDP) has decreased from 33 per cent in 1993-94 to 25.3 percent in 2000-01. The growth rate of both Net State Domestic Product (NSDP) and GSDP originating from agriculture has been much lower than the secondary and the tertiary sectors. It is a fact that the share of agricultural sector in total GSDP is going down, but the GSDP originating from the sector is increasing albeit at a slower pace than expected. However, the internal composition of GSDP from agriculture is changing fast. The contribution of crop sector is in tune with the past trends but there are sharp changes in the horticultural and allied agricultural activities. This is a welcome change and similarly the agro-processing sector is also emerging strongly on the scene. Overall, the internal structure of the SDP originating from agricultural sector is undergoing fast changes. Trade sector is one among the many sub sectors that have given boost to the process of such changes.

In spite of the lower rates of growth in agriculture, the State economy seems to be quite sensitive to the performance of the sector due to strong inter-linkages. The dominant role of this sector in the state economy as core contributor is quite clear even ignoring the estimates relating to its forward linkages. The growth rate in agriculture, which was quite commendable till the end of 1970s decelerated during the 1980s. The production of foodgrains also allegedly stagnated. Productivity was low, both under rainfed as well as under irrigated agriculture, during the eighties (GoK 1993). This was attended to immediately by taking quick policy steps. In the Eighth plan period, the emphasis was laid on integrated watershed development, strengthening the infrastructure base and ensuring adequate supply of inputs. During the late eighties and early nineties, with the help of state level policy interventions, the state achieved a recovery from the large looming stagnation. This was the time when the state also brought out a policy document for agricultural sector covering major aspects (GoK 1995). A number of Centrally Sponsored thrust programmes were implemented like the Intensive Rice Development Programme, the Pulses Development Programme and the Oil-seeds

Production Programme focused on stepping up production and productivity on watershed basis.

In the Soil Conservation sector, National Watershed Development Programme was implemented during the nineties along with some externally aided projects. Participatory process and integrated development of watersheds have become the key components of these projects. These components have given the required fillip to rainfed agriculture in the state.

Since, 1997-98, the emphasis of the State's policy has been directed towards hi-tech agriculture. The programmes undertaken include incentives for registered seed growers, popularization of plant protection measures and strengthening of agricultural laboratories. To train women and youth, an extension project has been taken up with external assistance. In the last decade, area under horticulture has increased by over three lakh ha., indicating an average annual growth rate of about 3 per cent per annum. The emphasis was on rainfed horticulture. Karnataka Horticultural Producer's Co-operative Marketing Federation has been functioning effectively. The Agricultural Universities at Bangalore and Dharwad have geared up for the purpose and given responsibilities to cater to the needs of agricultural education and research in the new emerging areas. It is proposed to strengthen the existing research stations and equip them with new technology. While Water and Land Management Institute at Dharwad has already been functioning for the last ten years, it is proposed to set up a Sugarcane Research Institute at Sankeshwar, a Cotton Institute at Raichur and Rainfed Horticultural Institute at Bijapur.

The development of agricultural sector in the state thus began with the seemingly formidable constraints in the form of large rainfed areas, meagre irrigation, low value, low yield dominant cropping pattern and large share of dependent population. The struggle of the sector to achieve respectable growth pattern is well documented (GoK 1993) but what has been achieved in the face of constraints sets a role model. The rainfed agriculture also participated and contributed equally in the growth (Rao 1992). This is the main component of the role model of achievement despite hard constraints. Now, the state is poised to enter a new era of hi-tech agriculture and venture into sectors like food processing and horticultural exports. Therefore, the investment needs and capital formation in the sector assume significance during this phase. The trends in capital formation in the state are more or less on the lines of national trends. In addition to this, the complementarity in the private and public sources has also been noted in earlier studies. In the following paragraphs we trace the development of the agricultural economy of the state.

(a) Changed Land Use Pattern

Karnataka State with 19.10 million ha accounts for 6.3 per cent of India's geographical area. Area under forest in the state is around 16 per cent as against 22 per cent at the national level but the share of net area sown is much higher in the state (55.62 per cent) than the national average of 47 per cent. Expansion of cultivation on pasture and grazing lands, and wastelands have contributed to the increase in the net area sown by 0.53 million ha in the state between 1955-93

It is not surprising that in the state, the percentage of area sown more than once (8.58 per cent in 1995-98, up from 1.8 per cent in 1955-58) is lower than the national average (about 13 per cent, up from 6.1 per cent) owing to lower level of irrigation development. Proportion of area under other fallows declined during the last four decades. The decline in the share of pastures and grazing land was also more pronounced in the state, compared to the national level trend. More area under industrialization and urbanization has resulted in increasing the share of land put to non-agricultural uses almost by 50 per cent both at state and national levels between 1955 and 1993.

(b) Crop Diversification

The area under total cereals in the state stood at 45 per cent, down by 11 per cent (in 1990-00) from 56 per cent (in 1955-58). The decline is mainly owing to reduction in area under jowar and bajra. The area under paddy increased by 3 per cent (from 8.7 to 11.6 per cent) between 1955-58 and 1990-93 and stabilized around that level after that. The area under maize increased from about 0.1 per cent in 1955-58 to 2.5 per cent of the gross cropped area in 1990-93 and further to 4.31 per cent in 1997-00. Though there is a decline in the proportion of area under cereals, paddy, jowar, bajra, maize and wheat, continue to be the dominant cereal and millet crops in the state.

Area under pulses has remained more or less unchanged (around 14 per cent) during the last four decades. However, the introduction of technology mission for oil seeds and favourable price regime has helped in the expansion of area under oil seeds. The area under oil-seeds in the state, which was around 12 per cent till the late 70s, increased to 24.4 per cent after the 1980s but slided down to 19.6 per cent. The gains in the oil-seeds area during the eighties were at the cost of cotton. The area under groundnut and sunflower in the state shared about 4.6 and 1 per cent of the total area under respective crops in the country. Cotton is an important cash crop of the state. The area under cotton has declined from 10 per cent to 5 per cent and much of the decline came after 1980-81. The area under other cash crops such as sugarcane, coconut, arecanut, etc., has increased over the years. The area under cotton declined in the traditional cotton growing districts of northern Karnataka and increased in the Malnad district during the 80s.

One can visualise three broad trends in the area allocation across crops. Firstly, it is found that the area under cereals and millets is decreasing over the years and this area is largely transferred to commercial crops. Secondly, large share of resources (in terms of irrigation and inputs) are allocated to irrigate high value crops and thus, the yield rates of irrigated crops are comparable to the national averages. Lastly, northern Karnataka and rainfed portions of southern Maidan have a largely diversified crop pattern whereas the coastal Karnataka and irrigated regions seem to prefer mono cropping.

(c) Production Trends

Production trends of important crops have been analysed here with the help of compound rates of growth for production and productivity for the period 1955-56 to 1993-94 and separately for 1990 to 2000. It is observed that the production of cereals in the state has grown at 2.13 per cent per annum during the period 1955-56 and 1993-94. The entire growth has been contributed by the yield as area under cereals in the state decelerated during this period. The expansion in area under cereals during 1955-56 through 1967-68 resulted in significant growth in cereal production in the state (Tables 1.1(a) and 1.1(b).

The pulse production in the state accelerated by 1.79 per cent per annum during the last 40 years and by 2.71 per cent during the seventies. Oil-seed production in the state was almost stagnant during the mid-fifties through seventies. However, it grew at a rate of 7.33 per cent per annum between 1980-81 and 1993-94. The performance indicators of the crop economy at the state level merge the differences across regions. These regional differences are of greater significance to the policy formulation than the state aggregate performance.

Table 1.1(a): Compound Growth Rates in the Crop Economy: 1955-56 to 93-94

(Per cent per Annum)

Crops	Area	Production	Productivity
Rice	0.60	2.21	1.60
Wheat	-0.63	2.73	3.38
Jowar	-0.84	1.26	2.12
Bajra	-0.47	2.19	2.67
Ragi	0.44	2.17	1.72
Maize	10.76	15.52	-
Total cereals	-	2.13	2.43
Gram	1.02	1.80	0.77
Tur	1.42	1.94	0.52
Total pulses	0.83	1.79	0.95
Groundnut	0.65	1.55	0.90
Total oil-seeds	2.18	2.74	0.54
Cotton	-1.60	2.39	4.06
Sugarcane	4.40	4.87	0.45

Note: Figures in the parentheses are values of ‘t’ statistics

Table 1.1(b): Growth Rates in the Crop Economy: 1990-2000

(Per cent per annum)

Crops	Area	Production.	Productivity
Rice	2.55	2.09	-0.45
Ragi	-3.22	-4.32	-1.14
Jowar	-1.28	-4.54	-3.3
Bajra	-1.4	-9.18	-7.89
Maize	7.75	6.86	-0.83
Wheat	3.98	4.78	0.77
Minor millets	-6.68	-5.43	1.35
Total cereals	0.14	-0.03	-0.17
Tur	1.5	-1.26	-2.72
Total pulses	3.92	-1.11	-4.84
Total foodgrains	1.02	-0.12	-1.12
Groundnut	-2.03	-10.4	-8.54
Total oil-seeds	-3.81	-9.56	-5.98
Sugarcane	-0.7	1.49	2.21
Cotton	-3.01	-3.42	-0.42
Tobacco	5.74	4.75	-0.93

Source: Based on the data collected from Directorate of Economics and Statistics, GoK.

In the cropping pattern of the state, cereals and oilseeds are the two major crops followed by pulses. The principal cereal crop in terms of area is Jowar with 18.97 lakh hectares followed by paddy with 13.53 lakh hectares (1997-98). In the total oil-seeds area of 23.72 lakh hectares, groundnut and sunflower account for 83 per cent of the area. Pulses account for 16.82 lakh hectares of area and it is distributed over a variety of pulses.

(d) Irrigated Agriculture

Irrigation development in Karnataka as compared to many other states and the country as a whole is quite low. The gross irrigated area in Karnataka is 23 lakh ha (net 17 lakh ha). Until now, only 52 per cent of the ultimate potential (46 lakh ha) of all sources has been developed. Minor irrigation constitutes 46 per cent and canals 40 per cent of the total irrigated area. The state has energized 8.7 lakh irrigation pumpsets and they account for 42 per cent of the total power consumption in the state. Capital disbursements of plan outlays for irrigation as per cent to total outlays by the state has reduced to 27 per cent (1988-89) from 34 per cent (1980-81). But there is 75 per cent increase (from 1980-81 to 1988-89) in non-plan expenditure on major and medium irrigation projects of the state. Future investments in surface water irrigation can be on the completion of schemes under construction and improvements to enhance the performance of existing schemes. Additional groundwater development is possible. By 1995-96, about Rs.2,000 crores had been invested on irrigation development in Karnataka. Since then about Rs.680 crores have been further invested on irrigation (GoK, 2000). For financing irrigation development Karnataka has established five irrigation development, corporations (like Krishna Bhagya Jal Nigam Limited) and has been borrowing from the market through the issue of long-term bonds.

(e) Rain-fed Agriculture: The Core of Future Policy

Karnataka is one of the states having meagre area under irrigation and vast drought-prone tracts. It is well known that about 80 per cent of the State is under rain fed conditions and major share of this falls in dry-agro-climatic zones. Therefore, regular visits of droughts to the state are neither un-expected nor avoidable. Frequent droughts leave the state economy depleted with resources and that too with regular frequency. But, it has been recorded that, despite the presence of vast rain fed areas in the state, Karnataka could record a growth rate in the neighborhood of 3 per cent consistently over the years except a few patches of stagnation. In this context, the potential contribution of rainfed agriculture to the growth of the State's agricultural sector is essential. For optimal utilization of resources like land and rainwater, the Government of Karnataka, in the early 1980s, initiated rainfed farming through watershed approach. Dry Land Development Board (DLDB) was constituted and District Watershed Development Programme (DWDP) was undertaken for implementation since 1983-84 in all the districts of the state. It is an integrated approach covering soil conservation involving crop husbandry, animal husbandry, forestry, irrigated agriculture, horticulture, etc. Activities undertaken under the watershed approach covered both arable and non-arable land.

The achievement (2.80 lakh ha) compared to the target area (3.47 lakh ha) treated was around 80 per cent, of which again 80 per cent was under soil conservation; forestry and horticulture accounted for 10 per cent each in the DWDPs of the DLDB in the state. The impact of the DWDPs on crop yields showed an increase of about 25 per cent of both food crops and also cash crops. Significant shifts were noted in the cropped area from inferior cereals to high yielding varieties and to commercial crops in the treated watersheds. This resulted in increase in the incomes of rainfed farming community. Apart from DWDP of DLDB watershed, there are other Watershed Development Projects, viz., NWDPRA, River valley watersheds, world bank assisted WDPs, DPAP watersheds, WGDP watersheds and NGO/VOs etc., that are implemented in the state. Even then the task of WDP in the State is stupendous so also the investment required for the programme. But, for rainfed agriculture presently this is the major policy intervention that may help in the long run.

Except a few spots of irrigated agriculture, most of the state depends on cereals and pulses as major commodities to support the livelihood system. The productivity of these commodities has not been growing with the same pace as that in the other neighboring states but the small commercial agricultural sector comprising of oilseeds, cotton, sericulture, sugarcane, horticulture and floriculture under rainfed conditions have been keeping the state on the present growth path. It will not be imprudent to design and place the growth of agricultural sector in these emerging cash-intensive and high-density agriculture. Rainfed agricultural technology for all these crops is available across the shelf and has shown proven results but needs to be propelled and made farmer-friendly. In that perspective, the rainfed agriculture of Karnataka can still direct the path of growth of the State in the coming decades.

(f) Sunrise Sectors in the State Agriculture

Karnataka occupies a very important position in the horticultural map of India.. The shift from subsistence farming to more remunerative horticultural crops has been a marked phenomenon in the recent past. In recent years, the area under horticultural crops is growing much faster on account of liberalization and New Economic Policy (NEP) induced market changes, availability of infrastructure and the incentive structure. The area under horticultural crops in the state increased to 1.4 million hectares (from 0.8 million ha) registering a growth rate of 4 per cent per annum over the period of 1980-81 to 1995-96. This is higher than the all India growth rate as well as that of China and Brazil (Sathyapriya 1996). The production levels have gone up to 11 million tonnes in 1995-96 from 5.6 million tones in 1978-79. The share of Karnataka accounted for 10 per cent of the area and production in this during this period.

In value terms, the horticultural production in Karnataka in 1995-96 was Rs.5,819 crores, accounting for 44 per cent of the state across the value of production from agricultural sector. This is increasing every year although the share of agricultural sector in the state total domestic product is declining. According to available trends, the state ranks fifth in the area and third in the production of fruits in the country, sharing 11 per cent of the country's total fruit production. Similarly, the state occupies the fifth position in respect of area and production of vegetables in the country. Some of the major factors responsible for this position are: conducive natural resources and agro-climatic conditions; proper skill formation, information dissemination; and active support from the state government in terms of incentives. Export of horticultural crops had increased to 17,828 tonnes in 1996-97 (April 1996 to February 1997) from 16,171 tonnes in 1994-95. This accounted for 0.013 per cent of the total horticultural production of the country during 1996-97. The value of exports of horticultural crops in the state increased from Rs.3,719.42 lakhs in 1994-95 to Rs.5,190.45 lakhs in 1996-97. This has accounted for 1.42 per cent of the total horticultural exports of the country (GoI 1997). During the last five-years the area under most of the crops increased at a faster pace compared to other crops. The area under spices increased from 3.91 lakh hectares in 1995-96 to 6.15 lakh hectares in 1999-2000.

A major constraint located in the development of horticulture is the lack of organized marketing system. The horticulture department with the objective of bridging the gap between the producer and the consumer has organized HOPCOMS (Horticultural Producer's Cooperative Marketing Society) in Bangalore and 15 District level co-operative Societies. Presently, HOPCOMS is operating in 5 districts with 7,881 grower members and 228.02 lakhs share amount. HOPCOMS has 350 retail outlets and handles 160 to 170 mt of horticulture produce daily.

Floriculture is emerging as an important commercial crop both in Karnataka and also at the country level owing to its multiple use and export potential. The major traditional flowers grown are marigold, jasmine, rose, aster crescendo and cutflowers with stem including rose, gladiolus, tuber rose and carnation.

Floriculture in Karnataka has achieved an impressive growth. Karnataka occupies the second position both in terms of area and production, next to Tamil Nadu. In Karnataka, area under floriculture has grown from 4,000 hectares with 21,000 tonnes of production in 1978-79 to 17,419 hectares (46 per cent share in the country area) with 102,205 tonnes of production by 1995-96. Export of floriculture produce has impressively increased to 607 tonnes (value Rs.425 lakhs) in 1996-97 from just eight tonnes (Rs 15 Lakhs) in 1994-95. The current export level of the state forms 7 per cent of the total earnings of the country's floriculture (GoI 1997b).

Some pioneering programmes initiated to boost floriculture in Karnataka are: (a) The land ceiling has been raised from 20 to 108 acres for horticultural crops including floriculture; and (b) The industrial policy of Karnataka (1996-2001) has identified floriculture as a thrust sector for making it eligible for high scale of incentives (NABARD 1997:10). These measures have now started yielding positive results. The new economic policy pursued since August 1991 has resulted in the approval of 134 floriculture export units till 31st December 1995 with a total outlay of Rs.1,091 million in the country. Already 32 units of floriculture have started functioning in different parts of the country. Most of these projects are based in southern India, particularly in Bangalore. Many of the Dutch aided floriculture units have entered agreements and tie-up with Indian companies in Bangalore. These trends indicate that Bangalore may emerge as the hub of floricultural activities in India and the state may possibly emerge as a major floriculture exporting state

1.3. Agro-Processing Industries

There is not much of agro-processing activity in the state particularly in respect of food processing. Realising the importance and the scope of food processing within the state, the state brought out an exclusive industrial promotion policy for agro-food processing from April 1999 by offering concessions and incentives for promoting food processing within the state. The Karnataka Agro Industries Corporation Ltd. has a fruit processing unit. The unit processes fruits into jams, juice, and tomatoes into squashes, crushes, sauce, etc., and sells the products through a network of sales points spread over the state.

1.4. Agricultural Marketing and Terms of Trade

Another important feature dominating the debate after the advent of globalization and the new economic policy is opening up of new avenues in the farm sector and consequent changes in the prices as well as inter-sectoral terms of trade. It will be quite erroneous to presume that the inadequately equipped infrastructure in agricultural sector can meet the high agenda of demands on the sector in terms of retaining fair competitiveness at home as well as in the world market. The trends in the income flow are largely dictated by the availability of infrastructure, market information and fair marketing practices. Still, a large part of the farm produce is sold in the unorganized markets and mostly traded by a strong lobby of non-cultivators. At micro-level, farmers' responses (especially in the lower brackets of marketable surpluses) to price signals are not too strong and easily discernible. In fact, many a marketing decisions are taken more under compulsions than responses to economic *stimuli*. This is mainly due to the information asymmetry and the ignorance about the market signals existing in this sector. The density of the regulated markets in India works out to 3.7 main markets per lakh ha of gross cropped area (Table 1.2). The number of regulated markets in the country increased by 328 markets during the last six years (from 6,640 in 1990/1 to 6,968 in 1996/7) covering the formation years of the policy towards globalisation.

Table 1.2: Regulated Agricultural Main Markets in Karnataka and India

Number of Markets				
	TOTAL		Per lakh hectares of GSA	
YEAR	KARNATAKA	INDIA	KARNATAKA	INDIA
1990-91	116 (1.746)	6,640	0.957	3.572
1991-92	116 (1.722)	6,738	0.986	3.697
1992-93	120 (1.772)	6,772	0.968	3.648
1993-94	122 (1.792)	6,809	0.983	3.653
1994-95	124 (1.814)	6,836	0.997	3.647
1995-96	131 (1.880)	6,968	1.053	3.718
1996-97	135 (1.937)	6,968*	1.084	3.718

Note: Figures in parenthesis are % to all India. * Not available, hence/earlier figures taken
Sources: 1. Statistical Abstract of Karnataka For various years, Directorate of Economics and Statistics, Bangalore.
2. Fertiliser Association of India, New Delhi, 1997.
3. GOI 1997b.

The situation of markets in Karnataka is not very different. The state has only 1.084 main markets per lakh ha of gross cropped area (in 1996-97); In other words, each market (excluding sub-markets) serves an area of 92,000 ha; if we add sub-markets the figure comes down to 27,000 ha. GoK (1993) report observes one regulated market per 66 villages for a radius of 12 Kms. The marketing infrastructure is inadequate and its growth has been insignificant. The number of markets (including main and sub-markets) in Karnataka have increased by only 55 (from 411 to 466) over the last six years. This increase is quite impressive as compared to the increase at the national level. There are not many studies analyzing the performance of marketing infrastructure in Karnataka. But the current levels of marketing facilities in Karnataka are inadequate and based on the quantum of commodity flow the facilities need to be almost doubled (Deshpande, Gajarajan and Dogra 1993). Another important issue relates to the distribution of average turnover across commodities. The average turnover per market works out to around Rs.80 million in Karnataka. This has shown an increasing trend in the recent past but in real terms (adjusting for price effect) the trend may not be really significant.

Terms of trade between agricultural and non-agricultural sectors indicate not only the relative performance of the sectors but also give clue to the trends in capital formation in the sector (GOI 1995). Favourable terms of trade indicate higher growth in the sectoral income stream. This can occur either through reduction in the input price levels keeping output prices in a steady path of growth. In such cases, higher subsidies would be involved in the production of inputs to keep input prices in check. Another way this can happen is through a steady increase in output prices with input prices having steady growth. The latter will have a positive impact on the capital formation in the sector. The question of terms of trade between agriculture and non-agricultural sectors becomes important in the context of the debate pertaining to the export led growth. If we expect that the distribution of growth be attained through the new forces of growth then the terms of trade should not be truncated against the rural or agricultural sector. If the terms of trade were favourable to the farmers then they would be induced in investing in the sector. The terms of trade for Karnataka based on the value added in State Domestic Product started becoming favourable to agriculture only after 1984-85. But the movements after 1990-91 have been more favourable than those compared with the earlier years. This is quite an encouraging factor especially for the future trends in capital formation in the state. It became favourable mainly because of the output price movement. Therefore, the price policy and terms of trade indicate favourable atmosphere but the market infrastructure must improve both in density as well as in quality.

1.5. Agricultural Credit

Institutional credit has played a significant role in enhancing growth rates in agricultural sector during and after the green revolution phase. Growth rates in agricultural credit for the period 1981-2000 in Karnataka indicate that credit to agriculture for the whole of the State grew at the rate of 13.2 per cent per annum. There are 13 RRBs functioning in rural and semi- urban areas with a network of 1,073 branches. By the end of 1995-96, the total number of commercial bank branches were 3,372; of which over 38 per cent were rural. By the end of 1995-96, the population per branch office was 10,135 compared to the all India average of about 13,500. In general, the population served per Branch was lower in coastal region while it was higher in the Northern Karnataka region. Apart from the economic reasons, the terrain and settlement pattern were more responsible for this spread. By the end of 1995-96, the proportion of priority sector (consisting of agriculture, small and tiny industries, services and business) advances to total advances was 42 per cent as against the stipulated norm of 40 per cent. This was an achievement given the experience that the priority sector norms were not followed across the country (Sarkar and Agrawal 1997). However, the proportion of credit to agriculture was 17 per cent as against the stipulated norm of 18 per cent, and that to weaker sections it was 9.6 per cent as against the stipulated norm of 10 per cent. Thus, although the banking system was meeting the priority sector norms of providing 40 per cent of the total advances, the proportion of the credit going to agriculture and weaker sections was marginally lower than the stipulated norms. This issue emerged boldly on the background the farmers' distress in the State.

Notwithstanding an impressive growth of credit flow in the state, the changes of pace and pattern of the contribution of agricultural credit emerges as a significant issue. A number of problems have been noticed in the field: (i) The credit provided by the formal banking system was neither timely nor adequate (Vyasulu and Rajasekhar 1993: Veerashekharappa 1997), (ii) A positive relationship existed between the size of landholding and proportion of credit as the credit dispensation in rural areas was based on collateral of land; (iii) The transaction costs were high for borrowers. The proportion of transaction costs were lower in the case of larger loan amounts and higher in the case of small and marginal farmers who borrowed smaller loan amount; (iv) A large proportion of the loan amount was diverted (especially by small and marginal farmers) to clear-off the old debts borrowed from moneylenders.

As regard the credit per hectare of gross cropped area across different districts, the districts where banks achieved the higher ACBC, the supply of credit per hectare of gross cropped area was less. For instance, although ACBC was only 10 per cent in the developed category of districts the credit per hectare of gross cropped area was Rs.7, 706 for the period 1996-2000. Similarly, the ACBC were 31.5 per cent and 44.2 per cent in backward and highly backward categories of districts, but the credit availability per hectare of gross cropped area were Rs.1, 665 and Rs.2, 408 respectively during the period 1996-2000**.** An increase in the amount of credit per loan account was associated with a decline in the number of farmers having access to the formal credit. This implies that the bankers were adopting both price and non-price credit rationing strategies while selecting the agricultural borrowers and fixing the credit limit.

1.6. Agricultural Extension and Training

Agricultural Training and Education plays an important role in the transfer of technology to the farming community in the state. Sustained high levels of agricultural production and incomes are not possible without an effective agricultural extension service supported by agricultural research relevant to the farmers' needs. Training and Visit (T&V) system is one of the many ways in which extension services are organized along effective professional lines. The Government of Karnataka started a New Agriculture Extension Project (NAEP) in the year 1979. The programme was taken up in three phases and by 1980-81 all the districts had been covered under the T & V system of extension. The department worked out new methodologies in order to improve the working of the field functionaries. Under the NAEP-II (completed in 1992-93, and after that under the State Plan scheme), efforts were made to strengthen the monthly and fortnightly training programmes by providing additional infrastructure facilities at various levels. The Expert Committee (GoK 1993) recommended to dispensing with the present T & V system. Over the years, the approach of transferring of technology through contact farmers has proved to be inadequate under the existing socio-economic conditions. Under these circumstances, the alternative extension system recommended by the expert committee and the sub-group on Agriculture of the State Planning Board has the "Group Approach". Hence, the expert committee and the sub-group recommended for re-organization of the department in order to achieve the said tasks.

Keeping in view these concepts, the Department of Agriculture was reorganized during May 1995, by merging the crop husbandry and soil conservation wings of the department. In the new set up, the Gram Panchayat was taken as a unit for carrying out all the extension activities and the grass root level extension worker, i.e., Agricultural Assistant placed at gram panchayat level to carry out all extension activities of the department including horticulture.

1.7. Development Imperatives

(a) Enabling Environment

Karnataka State faces threefold challenge in the current growth-oriented environment. The agro climactic situation of the state divides the state into a large number of Agro climatic zones. The crop patterns as well as cultivation practices differ across these zones. More than that, resource endowments availability and delivery system of inputs differ across these zones. Even directing the public investment towards agricultural development across regions has not yielded the desired results to merge the differences in developmental initiatives across these regions. Among the five zones classified based on the agrarian and agro-ecological systems, the unirrigated plateau zone of Northern Karnataka and that of southern Karnataka are the main lagging regions of the state. Even in terms of investment from public and private sources, these two broad regions have remained at the lowest rung. Therefore, failure to make investments or initiate investment in the rural areas of these two regions has caused impediments to growth. In the absence of the data on region-wise investment, we cannot conclude about the exact failure. But sensing the acuteness of the problem, the state of Karnataka has taken initiative in constituting a committee to investigate into regional imbalances across the state. It is expected that this committee will bring out a report highlighting the requirement for initiating these in areas in the mainstream growth. The recommendations have to be graded to concentrate at various levels of development in the lagging regions on Northern Karnataka.

Most important challenge that the state faces presently is facilitating private investment in the backward areas of the state. While initiating such schemes, it is essential to understand the resource endowments and competitive advantages of these regions to participate in the mainstream growth pattern. Unfortunately, the climatic and weather patterns do not support agricultural growth, and therefore, the growth culture has to be created even in the allied agricultural sectors. Horticulture development, especially the dry land horticultural crops, looks to be a promising alternative. The state government is taking sufficient initiatives to boost horticultural development in these regions. These efforts are, however, concentrated on the individual farm households. Contracting of horticultural crops to a consortium of small and marginal farmers with an assurance to provide them proper marketing facilities will go a long way in bringing this group of farmers into the mainstream development process.

The second major impediment that causes the challenge for the State government is the availability of funds to initiate agricultural and rural development schemes in the fragile regions. Therefore, it is required that private initiatives are taken either in terms of corporate farming or bulk purchase and marketing facilities. The requirement of investment in the backward regions can also be met by siphoning the excess savings from well-endowed regions to the deserving backward areas. This can be achieved by floating low interest investment bonds to be purchased by the private contributors from developed regions of the State. Development boards specially set up to guide the process of development of these regions can take initiative in this respect.

Box 1.1: Major Challenges and Responses for Enabling Acceptance

Sl No	Major Challenges	Responses for Enabling Acceptance
1	Threatened stagnation in agri growth. Possibility of decelerating growth.	Locating growth in the emerging growth-inducing crops/ sectors.
2	Low value added in agricultural sector.	Removal of marketing bottlenecks and enabling remunerative price situation.
3	Fast approaching optima on technological front.	Investment boosting in R & D Sector.
4	Large proportions of rainfed/dryland area.	Technological options and diversification of economic base.
5	Marginalisation of agricultural base..	Group initiatives and arresting the process through institutional options.
6	Inadequate growth in public and private investment.	Attracting private investments in the sunrise sectors. Locating sub-sectors with new growth options.
7	Regional disparities	Prudent regional allocation of growth-inducers.
8	Inadequate safety nets.	Revamping and redesigning the safety net programmes. Effective delivery.
9	Conflicting growth versus environmental options.	Resolving the issues amicably. Reducing the intensity of negative externalities.

The third and important problem faced by the state is in terms of participation in the process of liberalisation by enabling a proper conduit towards the most deserving regions and groups of farmers. The state has been performing well, as far as its participation in international trade is concerned. In the past four years, the state has shown good progress on the front of exports of agricultural products. If this tempo has to be continued and enhanced in future, it is necessary to support the agricultural and horticultural sectors in terms of crucial information as well as creating an enabling environment for the participation. The State has set up a Cell to advise on the WTO related issues. The Cell has submitted its interim report and noted that the State has a promising potential in participating in the international trade (WTO Cell Report 2001). This can be harnessed for fueling the growth process.

(b) Towards Improvement in the Delivery System

Time and again it has been said that public expenditure incurred on the development schemes in rural areas do not reach the intended beneficiaries. The usual process of formulation of a development scheme begins either at the state headquarters or dished out by the Central Government. It is very rarely that any scheme is discussed with the end beneficiaries or administrators at grass root level before its formulation. Therefore, the evaluations of different schemes have pointed to three defects, viz., i) defects in the formulation of the scheme, ii) defects in the implementation of the scheme, and iii) non co-operation by the beneficiaries. Rarely evaluations have pointed to the lack of investment or misuse of funds.

It is noted by a number of analysts that the state agricultural sector and rural sector have major bottlenecks in terms of density and availability of infrastructure. Across the plan periods large sums have been spent on infrastructure and public investment in agricultural sector. However, even today, barring a few examples, the delivery systems of services in rural areas have been extremely unsatisfactory. It is, therefore, essential to boost the service network in the rural areas so that the production efficiency can be harnessed fully. Lack of efficiency and availability of services in the rural areas have a circular and self-perpetuating logic. Non-availability and difficult access to services make the production system inefficient and such production system finally causes inefficiency in distribution. In order to break the vicious circle it is essential that there is substantial improvement in the rural infrastructure availability. Karnataka has retained more or less the average level in an inter-state comparison in the country in terms of many indicators and even in the infrastructural indicators. Therefore, infrastructure becomes an important bottleneck and it is essential to attend to this on priority. It has been noted that a substantial amount of state expenditure being incurred on inefficient subsidies, which unfortunately are the cause as well as the result of inefficient production system. A logical answer to this tangle is to reorient the expenditure on inefficient subsidies towards revamping and providing better quality of delivery system in the rural areas. The total subsidy amount in the latest year in the agricultural sector touched 601.64 crore rupees during 1995-96 (GoK 2000c). It was 1.56 per cent of GSDP in 1995-96 and scaled down to 1.02 per cent of GSDP in 1999-2000. Even if half of this expenditure had been diverted towards better delivery systems probably, it would have added to the information of the production efficiency.

Empowerment of the small and marginal farmers, caught up in a vicious circle of low investment, low productivity, and low income, through group action with the support of appropriate policy-technology-institution matrix have to be ensured. If not, their survival in the wake of liberalization will be in danger. Organization of group action in rebuilding depleted and degraded natural resource base in input and output marketing, in putting pressure on agricultural research institutions to develop low cost and risk-free technologies, in approaching the credit institutions for loans, in dealing with agri-business firms, and in availing the benefits public extension system could provide a stage for developing a strong development constituency of small and marginal farmers.

With liberalized international trade in agricultural and horticultural commodities under WTO, the farmers of Karnataka (like their counterparts in other parts of the country) are likely to encounter the situation of volatile prices (more towards downward). Unless safety net in the form of Minimum Support Price Policy is properly defined (especially with respect to cost components) and implemented the farmers' economic interests will be adversely affected. The problem is not merely the definition of cost components and their consideration, but also even the announced prices have less of relevance to farmers of Karnataka. The Agricultural Policy Resolution of the Government of Karnataka (1995, Para 35) observes as follows: The problem of farmers is not merely one of price, but also of the market structure operating for agriculture products and also the conduct of this structure.

With liberal trade regime, the role of private trading is not merely inevitable but also important. What is needed is to strengthen the marketing system in the public sector especially regulated markets, which are still dominant market outlets for farmers in case of pulses, oilseeds and maize. Some of the important issues that feature in the changed circumstances can be classified under three groups. The first group includes domestic market reforms and making domestic market competitive and non-discriminatory. A proper conduit between the domestic and international markets has to be established. The second comes the identification of commodities and the sectors that need to be encouraged in these circumstances. The third component involves preparedness for the likely market shocks and therefore, putting in place a proper safety net programme.

Agri Research and extension are the keys to provoke development and dissemination of technologies. Biotechnology holds promise for increasing productivity, quality, efficient processing and utilization of products and hence, intensified research efforts are needed in the application of biotechnology for increasing shelf life and converting foodstuffs into more palatable, nutrious and stable forms. The need for restructuring public extension system is another accepted platform of reform. Added to these triggers for re-gearing agricultural extension system the need for public sector extension systems to operate in a partnership mode involving farmers associations, NGOs, agri-business firms etc. is well placed. There are three major issues, which need to be addressed with respect to public extension system. First, whether the existing institutional structure is adequate to address the extension needs of agriculture sector under emerging technological and development environment? Second, what kind of changes is needed in the extension service package (ex., addition of marketing and natural resource management etc.) offered at present? Third, are the extension education methodologies followed at present for a segmented agriculture sector relevant? (Bisaliah 2004)

1.8. Focus

This study is a component of the coordinated studies on Agricultural Policy coordinated by Agricultural Development and Rural Transformation (ADRT) Unit, Bangalore and Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad. The emphasis in this component of the study is to view the State Agricultural Policy from the viewpoint of the impact under WTO. We have analysed this in five components. Initially, we have set a stage of the present Agricultural Policy scenario in this chapter, which is followed by the basic structure of WTO for the purpose of understanding by an independent reader. The second chapter dealing with AoA is included not for the purpose of the "consolidated report" but to provide a continuity in reading this study (report). This is followed by an analysis of agricultural trade scenario of Karnataka, wherein we have analysed the present situation about agricultural trade in the state. We hasten to add that the data on agricultural trade at sub-country level are not collected properly and a significant share of traded commodities get recorded only at the port of destination and therefore, the scenario is indicative only. These data are collected from Agricultural And Processed Food Products Export Development Authority (APEDA) and Karnataka State Agriculture Produce Processing And Export Corporation Limited (KAPPEC). This is followed by a chapter delineating the implication of agreement in agriculture at the national and state levels. We have stated here the initiatives required to make agricultural sector going on the growth path. Finally, we have provided the required action points to avoid the deleterious impacts and provide new growth initiatives to the sector in the state.

CHAPTER II

WTO AND THE AGREEMENT ON AGRICULTURE (AOA)

2.1. Introduction

World Trade Organisation (WTO) is currently the main international body dealing with the rules of trade between nations. It is the outcome of the continuous negotiations under the General Agreement on Trade and Tariff (GATT) since the inception of GATT in 1947. WTO agreements provide the legal ground rules for international commerce. They are like contracts, which bind governments to keep their trade policies within the boundaries set by the agreements. Although, WTO is an inter-governmental organization, the rules apply to business - they focus on how producers of goods and services, exporters and importers conduct their business. In recent years, there is increasing pressure on WTO to respond to the needs of civic society. The interests of the people, that is, the workers, farmers and consumers should also be kept in mind by the WTO. Global issues like poverty, environment and labour should get full attention. The basic principles of WTO are contained in original GATT Act, 1947. These are still operative in the form of GATT 1994, which updates GATT 1947. Basic principles of the WTO trading system include – (i) Non-discrimination between trading partners who are members of WTO, by granting the “Most-Favoured-Nation” (MFN) Treatment to all partners alike, (ii) Non-discrimination between imported and locally-produced goods, services, trademarks, copyrights and patents within a country at least after the foreign goods have entered the market. (iii) Encouraging a freer trade by lowering trade barriers gradually, through negotiations. (iv) Enhancing predictability through binding tariffs. (v) Promoting fair competition and, (vi) Arriving at decisions in consensus with the member countries.

2.2. Inception of WTO and the Proceedings

Uruguay Round (1986): The Uruguay Round agreement held in Punta del Este is considered as a significant first step towards a new world order, fair competition and a less distorted world agricultural sector. It covered virtually every outstanding trade policy issues extending the trading system into several new areas, notably trade in services and intellectual property, and to reform trade in the sensitive sectors of agriculture and textiles. It was the biggest negotiating mandate on trade ever put forward. After continuous negotiations, in subsequent meets, on several issues like agriculture, market access, services, anti-dumping rules etc., ministers of 123 participating nations signed the final deal of WTO in Marrakesh, Morocco in 1994 and it came into force in 1995 with its headquarters situated in Geneva, Switzerland. The "Final Act" of Marrakesh contains legal texts, which spell out the results of all the negotiations since the Round was launched in Punta del Este, except the negotiations on market access and liberalisation of trade in services which are recorded in the national schedules of the Act, and also contains texts of Ministerial decisions and declarations, which further clarify certain provisions of some of the agreements.

Singapore Round (1996): The first ministerial conference of the WTO was held in Singapore with a primary purpose to review the implementation of the new rules and undertakings agreed upon. The proposal to expand the agenda of the WTO by launching negotiations on new issues – trade and competition policy, trade and investment, transparency in government procurement and trade facilitation and labour standards – was first floated which has remained a controversial proposal that has continued to plague the WTO ever since. Three working groups were organized within the WTO to address these, recognizing a "case for multilateral rules" in these areas, and mandated that decisions at the 5^{th} Ministerial be reached as to whether negotiations on these issues could begin.

Geneva Round (1998): The second ministerial conference of the WTO was held at its headquarters in Geneva, Switzerland where it was acknowledged for the first time that the trade agreements established by the Uruguay Round were skewed against the developing and least developed countries. A mechanism for the evaluation of the implementation of the individual agreements was devised. However, subsequent demands by the developing countries to have the rules reviewed have so far not yielded any results.

Seattle Round (1999): The Seattle Conference remains famous for the dramatic collapse of the talks due to the protests of developing countries against lack of transparency in the negotiations. The developing countries called for a review of the implementation of the existing agreements and the issues discussed included – core labour standards; agriculture, textiles and anti-dumping; and a programme for a new round of negotiations. But, the conference collapsed due to huge demonstrations against the new round and ended up without a declaration.

Doha Round (2001): After the collapse of the Seattle trade talks, WTO held its fourth ministerial conference in Doha where the current round of trade negotiations called as the Doha Development Agenda was launched. The agenda consisted of seven items – implementation issues; agriculture; services; market access for non-agricultural products; trade and environment; WTO rules; Trade Related Intellectual Property Rights (TRIPS); and dispute settlement and fixed 2005 as deadline for arriving at a consensus through negotiations on the first six issues. The conference produced three main documents – a Ministerial Declaration, a Declaration on TRIPS Agreement and Public Health, and a decision on Implementation-Related Issues and Concerns on Uruguay Round Agreements with regard to developing and less-developed countries. The Doha Round is scheduled to conclude at the end of 2005.

Cancun Summit (2003): The WTO held one of its most open and transparent sessions to date at Cancun, with a purpose to bring together Ministers from all 146 Members to review progress on the Doha Development Agenda of 2001. The atmosphere of the Conference did not lend itself to consensus building. While progress was made in some areas under negotiation, differences over the development of new rules on the 'Singapore Issues' (investment, competition, trade facilitation, transparency in government procurement) could not be overcome. Other factors like differences on agriculture trade reform, a weak response to the cotton initiative, and uncertainty of the ambition and flexibility that would be provided in modalities for the non-agricultural market access negotiations also contributed to the inability of the members to agree on direction for further progress in the Round. The role of the G-23 group of developing countries, led by Brazil, influenced the dynamics in the negotiations at Cancun, as the group effectively coordinated to develop a common position on agriculture. The experience of the Cancun Ministerial Conference has provided greater clarity as to where lie the most significant divergences among Members.

Table 2.1: WTO Proceedings at a Glance

Year / Venue	Issues Debated	Results
1986, Punta del Este, Uruguay	• Extending the trading system into several new areas, notably trade in services and intellectual property, and to reform trade in the sensitive sectors of agriculture and textiles. • All the original GATT articles were up for review.	Adopted a Ministerial declaration, which contained the biggest negotiating mandate on trade ever agreed.
1988, Montreal, Canada.	• Mid-term review of the progress of Punta del Este declaration with a view to clarifying the agenda.	• Talks ended in a deadlock leaving issues related to services, IPRs and agriculture and textiles unresolved. • Agreements on some concessions on market access for tropical products and streamlining a Dispute Settlement System and a Trade Policy Review Mechanism through a review of the national trade policies and practices of the Members
1991, Geneva	First draft of the 'Final Legal Agreement', compiled by Arthur Dunkel put on the table.	• The draft became the basis for the final agreement. • New points of major conflict joined agriculture: services, market access, anti-dumping rules, and the proposed creation of a new institution.
1994, Marrakesh, Morocco.	The "Final deal" was signed by ministers from most of the 123 participating governments	• US and EU settled most of their differences on agriculture • US, EU, Japan and Canada announced significant progress in negotiations on tariffs and related subjects -"market access" • Negotiations on market access for goods and services was concluded
1995, Geneva	WTO created.	Agreements take effect.
1996, Singapore.	• Review of operations post WTO • Discussions on controversial issues : core labor standards, investment and competition policy, government procurement • Information Technology • Implementation issues of Agreements on Agriculture and Textiles	• The establishment of three working groups – trade and investment, trade and competition and transparency in government procurement, plus a mandate to conduct a study on trade facilitation. • A Plan of action to assist LDCs

contd...

1998, Geneva.	• Implementation concerns of developing and LDCs • Electronic Commerce.	• Successful conclusion of negotiations on basic tele-communications services and adoption of declaration on Global electronic Commerce. • Sixty-nine governments agreed to wide-ranging liberalisation measures. • Mechanism for the evaluation of the implementation of individual agreements.
1999, Seattle.	• Agriculture, textiles and anti-dumping. • Core labour standards. • Programme on new round of negotiations.	• Abandoned; huge demonstration against new round and the issues of labour and environment; talks suspended • No declaration.
2001, Doha.	• TRIPS & Public health • Implementation related concerns of developing countries & LDCs • Launch of new round	• Declaration diluting TRIPS on public health grounds. • Decision on Implementation concerns on Uruguay Round Agreements. • Launch of 'Doha Development Round' consisting of 7 items-implementation, agriculture, services, market access for non-agricultural products, trade and environment, WTO rules, TRIPS and dispute settlement.
2003, Cancun.	• Review of progress on the Doha Development Agenda. • Fundamental agricultural trade reform. • Improved market access for goods and services. • Improved trade rules (anti-dumping, countervail and subsidies). • Helping developing countries to further integrate themselves into the global trading system. • Singapore issues	• Disagreement on various issues like the development of new rules on the 'Singapore issues'; agriculture trade reform, a weak response to the cotton initiative, and uncertainty of the ambition and flexibility for the non-agricultural market access negotiations failed in consensus - building. • Firmly divergent views, primarily between the EC/US and the G-23 developing countries over agriculture. • No conclusion as common ground could not be reached on the negotiations.

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2004, Geneva, WTO General Council Meet	• Agriculture • Market access for industrial products and services. • Differential treatment for and assistance to developing countries. • Environmental and Intellectual Property concerns. • Facilitation of customs procedures.	• A "Framework Agreement" was arrived at. • On domestic support, the existing blue box used by developed countries for providing subsidies linked to production was tightened, in the direction of cutting down trade distorting subsidies. • Developing countries with *de minimis* (domestic support equivalent to 10 per cent of total value of agri production) support to farmers exempt from reduction commitment • Export credits & subsidies to be eliminated by end date. • Special safeguard mechanism for the developing countries. • Dropping of the three Singapore Issues relating to investment, competition policy and government procurement from the Doha agenda. • In the area of service, special attention will be given to sectors and modes of supply of export interest to developing countries, especially those relating to movement of natural persons. • Trade Negotiations Committee and other WTO bodies were to put in efforts to find appropriate solutions to resolve the Implementation Issues.

2.3. Agreement on Agriculture

Under the Agreement on Agriculture (AoA), the negotiations resulted in four main portions. These are: the Agreement on Agriculture itself; the concessions and commitments the members are to undertake on **market access, domestic support and export subsidies; & the Agreement on Sanitary and Phyto-sanitary Measures.** In addition to these, the Ministerial Decisions concerning Least Developed and Net Food-Importing Developing countries also feature prominently. Overall, the results of the negotiations provide a framework for the long-term reform of agricultural trade and domestic policies over the years to come. It makes a decisive move towards the objective of increased market orientation in agricultural trade. The rules governing agricultural trade, therefore, need to be strengthened which will lead to improved predictability and stability for importing and exporting countries alike.

The agricultural package also addresses many other issues of vital economic and political importance to many Members. These include provisions that encourage the use of less trade-distorting domestic support policies to maintain the rural economy, that allow actions to be taken to ease any adjustment burden, and also the introduction of tightly prescribed provisions that allow some flexibility in the implementation of commitments. Specific concerns of developing countries have been addressed including the concerns of net-food importing countries and least-developed countries. The agricultural package provides for commitments in the area of market access, domestic support and export competition. The text of the Agricultural Agreement is mirrored in the GATT Schedules of legal commitments relating to individual countries.

In the area of market access, non-tariff border measures are replaced by tariffs that provide substantially the same level of protection. Tariffs resulting from this "tariffication" process, as well as other tariffs on agricultural products, are to be reduced by an average 36 per cent in the case of developed countries and 24 per cent in the case of developing countries, with minimum reductions for each tariff line being required. Reductions are to be undertaken over six years in the case of developed countries and over ten years in the case of developing countries (see the table that follows). The tariffication package also provides for the maintenance of current access opportunities and the establishment of minimum accesses tariff quotas (at reduced-tariff rates) where current access is less than 3 per cent of domestic consumption. *These minimum access tariff quotas are to be expanded to 5 per cent over the implementation period. In the case of "tariffied" products, "special safeguard" provisions will allow additional duties to be applied in case of shipments at prices denominated in domestic currencies below a certain reference level or in case of a surge of imports.* The trigger in the safeguard for import surges depends on the "import penetration" currently existing in the market, i.e., where imports currently make up a large proportion of consumption, the import surge required to trigger the special safeguard action is lower. The base level for tariff cuts was the bound rate before 1 January 1995; or, for unbound tariffs, the actual rate charged in September 1986 when the Uruguay Round began.

Domestic support measures that have, at most, a minimum impact on trade ("green box" policies) are excluded from reduction commitments. Such policies include general government services, for example, in the areas of research, disease control, infrastructure and food security. It also includes direct payments to producers, for example, certain forms of "decoupled" (from production) income support, structural adjustment assistance, direct payments under environmental programmes and under regional assistance programmes. In the reductions in agricultural subsidies and protection agreed in the Uruguay Round, only the figures for cutting export subsidies appear in the agreement. The other figures were targets used to calculate countries' legally binding "schedules" of commitments. The time duration provided for the developed countries to implement the constraints recommended on the domestic support policies are 6 years (1995–2000) and for the developing countries it is ten years (1995–2004). Average tariffs cut recommended for all agricultural products – 36 per cent – 24 per cent. Minimum cut per product was recommended as – 15 per cent – 10 per cent of base period: 1986–90. Domestic support total AMS cuts for sector was recommended at base period 1986-88 – 20 per cent – 13 per cent.

In addition to the green box policies, other policies were not to be included in the Total Aggregate Measurement of Support (Total AMS) reduction commitments. The Total AMS covered all support provided on either a-specific or non-product-specific basis that did not qualify for exemption and was to be reduced by 20 per cent (13.3 per cent for developing countries with no reduction for least-developed countries) during the implementation period. Members were required to reduce the value of mainly direct export subsidies to a level 36 per cent below the 1986-90 base period levels over the six-year implementation period, and the quantity of subsidised exports by 21 per cent over the same period.

In the case of developing countries, the reductions were two-thirds of those of developed countries over a ten-year period (with no reductions applying to the least-developed countries). These were subject to certain conditions, there were no commitments on subsidies to reduce the costs of marketing exports of agricultural products or internal transport and freight charges on export shipments. Where subsidised exports had increased since the 1986-90 base period, 1991-92 might be used, in certain circumstances, as the beginning point of reductions although the end-point remained that based on the 1986-90 base period level. The Agreement on

Agriculture provides for some limited flexibility between years in terms of export subsidy reduction commitments and contains provisions aimed at preventing the circumvention of the export subsidy and sets out criteria for food aid donations and the use of export credits.

The agreement sets up a committee that will monitor the implementation of commitments, and also monitor the follow-up to the decisions on measures concerning the possible negative effects of the reform programme on least-developed and Net Food-Importing Developing Countries. The package is conceived as part of a continuing process with the long-term objective of securing substantial progressive reductions in support and protection. In this light, it calls for further negotiations taking into account non-trade concerns, special and differential treatment for developing countries, the objective to establish a fair and market-oriented agricultural trading system and other concerns and objectives noted in the preamble to the agreement.

Table 2.2: Details of Compliances Required under AOA

Sl No.	Components	Specific Recommendations
1.	**Market Access**	i. Tarrification - change from non-tariff to tariff, thereby rationalising the access. ii. Negotiable restrictions on tariff and binding lines drawn for tariffs. iii. Guaranteed access at a pre-decided share of domestic market iv. Special safeguard measures for importers v. Safeguards against eventualities like – import surge, world price fluctuations and developing economies.
2.	**Export-Competition**	i. Defined limits on budget expenditure on existing export subsidies. Phased programme to reduce it. ii. Ban on introducing new export subsidies. iii. Adherence to food aid rules. Genuine food aid to be exempted from trade restrictions. iv. Other subsidies should not be applied that would undermine the cut in export subsidies. v. Export credit and credit guarantees to be covered under a separate agreement.
3.	**Domestic Support Policies (Subsidies etc.)**	i. Reduction in total trade distorting domestic subsidies. ii. Separate treatment for developing countries. iii. Exemption for developing countries based on Aggregate Measure of Support. iv. Direct payments under production reduction programme not subject to reduction. v. "Green box" defined for allowable subsidies.

Source: Deshpande and Thippaiah (July 2000).

Table 2.3: Reductions in Subsidies and Domestic Support

Implementation Period	Developed Countries 1995-2000	Developing Countries 1995-2004
Export subsidy reductions		
Base period Expenditure (for each commodity) Quantities (for each commodity)	1986-90 (Average Level) 36 per cent 21 per cent	1986-90 (Average Level) 24 per cent 14 per cent
Domestic support reductions Base period	1986-88	1986-88
Aggregate measurement of Support (AMS)	Reduce by 20 per cent over six years from 1995.	Reduce by 13.33 per cent over 10 years from 1995-96.
Credits starting from	1986	1986
Exemptions	• "green and blue box" support policies • If product-specific support does not exceed 5 per cent of the total value of a product (or product group). This support need not be included in the AMS nor be reduced	• "green and blue box support policies • If product-specific support does not exceed 10 per cent of the total value of a product (or product group). This support need not be included in the AMS nor be reduced
Market Access A. **Tariffs**		
(a) Ordinary Customs duties	• The same as above for non-product-specific support which does not exceed 5 per cent of the value of total agricultural production	• The same as above for non-product-specific support which does not exceed 10per cent of the value of total agricultural production
(b) other border measures (including non-tariff barriers) (NTBS)	• Reduction commitments to be implemented on the duty at the level of 1986-88 average. • To be converted into ordinary bound custom duties in their tariff equivalent of the base period ("tariffication")	• Reduction commitments to be implemented on the duty at the level of 1986-88 average. • To be converted into ordinary bound customs duties in their tariff equivalent of the base period ("tariffication"). Countries with unbound tariffs have their option to offer "ceiling bindings" not necessarily equal to the tariff equivalents of the base period NTB or the level of unbound tariffs.

(c) Tariff reductions	• The resulting duties from (a) and (b) are to be reduced on an average by 36 per cent (simple average), with a minimum of 15 per cent for each tariff line	• The resulting duties from (a) and (b) are to be reduced on an average by 24 per cent (simple average), with a minimum of 10per cent for each tariff line
B. Minimum access (for countries subject to "tariff equivalent:" tariffication)		
Base period	1986-88 (level)	1986-88 (Level)
Minimum access (for each Commodity)	3 per cent of base period consumption increasing to 5 per cent in 2000	3 per cent of base period consumption in 1995 increasing to 5 per cent in 2000

Source: Deshpande and Thippaiah (July 2000)

2.4. Major Points under the Agreement on Agriculture (AoA)

- The AoA covers five major areas under WTO, namely: Market Access, Domestic Support and Exports Competition, Trade Related Investment Measures and Trade Related Intellectual Property Rights
- Non-tariff barriers such as Quantitative Restrictions are to be replaced by tariffs to provide the same level of protection.
- Developed countries need to reduce their tariffs by an average of 36 per cent over a period of 6 years and developing countries to comply similarly by 24 per cent over a period of 10 years.
- Minimum level of access for imports of agricultural products (as a share of domestic consumption) should not be less than 3 per cent. This minimum level is to rise to 5 per cent by year 2000 for developed countries and 2004 for developing countries.
- Developed countries have to reduce their Aggregate Measure of Support (AMS) by 20 per cent over 6 years and Developing countries have to comply similarly by 13 per cent over a period of 10 years. Least developed countries are exempted from this.
- The agreement distinguishes between types of subsidies and defines three kinds of subsidies viz., Prohibited, Actionable, and Non-actionable subsidies.
  1. Prohibited Subsidies – These cover the subsidies having direct influence on trade.

ii. Actionable Subsidies – Include those subsidies having adverse effects on the trade prospects of other signatories.

iii. Non-Actionable Subsidies – These can be either product-specific or non-specific subsidies involving assistance to industrial research and pre-competitive development subsidies. These also include subsidies provided to disadvantaged regions to participate in the main stream of development.

- 'Green Box' and 'Blue Box' measures provide subsidies to be excluded from AMS.
- Peace provisions aim at the reduction of the likelihood of disputes or challenges on Agricultural subsidies.
- Special Safeguard provisions provide safeguards against sudden price troughs in domestic market and surges in imports affecting the interest of farmers.
- Agreement on Sanitary and Phyto-Sanitary (SPS) Measures provides ensuring the regulations given under the agreed rules.
- Agreement on Trade Related Aspects of Investment Measures (TRIMS). This seeks to ensure that countries do not invest in order to create artificial advantage and affect the trade interest of other countries (Article of III of GATT).
- Agreement on Anti-Dumping. No country will be allowed to 'dump' the produce in the country of destination by creating an artificial price differential.
- Agreement on Customs Valuation. This gives customs administration right to request further information on the imports wherever they have doubt about the accuracy as well as the declared value of the imported goods.
- Agreement on pre-shipment inspection. A review process is allowed under this agreement for the inspection of the goods prior to shipment.
- Agreement on Safeguards. This allows the member countries to take safeguard actions against any specific incidence in order to protect the domestic industry from serious effects. Safeguard measures would not be applicable to a product from a developing country member, if the share of developing country in the imports of the product does not exceed 3 per cent. This will be done if the developing country having less than 3 per cent import share collectively accounting for not more than 9 per cent of the total imports of the product concerned.
- Agreement on Trade Related Intellectual Property Rights (TRIP) recognizes that there are varying standards of protection and enforcement of IPRs. It is necessary that there is standardization in the regulations across the countries.

Box 2.1: Required Compliance with the Emergence of WTO

We have the following important aspects to face

- **Providing minimum market access of 3 per cent in the domestic market.**
- **Tariffication and Operations of Tariff Policy with its implications at the State Level.**
- **Aggregate measure of support less than 13.33 per cent.**
- **Actionable subsidies to be removed.**
- **Sanitary and Phyto-sanitary standardization.**
- **Trade in services and human capital.**
- **Standardization of Trade Related Intellectual Property Rights Regime.**
- **Ensuring environmental safeguards and protecting against the entry of welfare deteriorating technologies.**

CHAPTER III

AGRICULTURAL TRADE SCENARIO: KARNATAKA

The GATT negotiations paved the way for the establishment of WTO and brought into reality the process of liberalisation in the trade sector. The trade reforms covered broadly five important components, namely, tariffication, market access, domestic support policies, establishment of WTO and adherence to WTO norms. Consequently, the debate so far has centered around issues covering market access, tariffication, trade related intellectual property rights, aggregate measures of support and domestic support policies. India, as one of the WTO signatories, accepted the provisions but entered into rough weather regarding the time-scheduling of the removal of quantitative restrictions. The bottom line of all the arguments culminates into a pre-determined level of market access and the upper limit of the AMS in addition to the major issues in agricultural policy. Given the flexibility through coloured boxes (Green, Blue), tariffs, and concessions for some group of countries it is not difficult to achieve the desired goal of reaching the targeted higher export growth. The Exim Policy of 1997-2002 initiated the process of India's participation as a significant player in the world trade. Initially, there was a spurt in the exports but soon this came down. In the policy circles it was felt that there should be a new impetus to the export sector and hence, the recent changes announced in April 1999 and 2000 have given a new fillip to the export sector. These changes incorporate quite a few steps including the establishment of the EPZs, Green Card for exporters, promotion to export services and removal of QRs on 1,429 tariff lines.

3.1. India's Trade Policy Scenario

India's trade policy has evolved through its plan priorities, behaviour of domestic demand and assumptions about the possibilities of import substitution and export promotion. The import substitution implies that the production efficiency in the domestic sector would improve as a result of industrialisation. This is in tune with the Listian infant industry argument. By the mid-sixties, the sluggish growth in the output of many industries was noted as a result of the modernisation policy of the mid-fifties. By the seventies, signs of change were visible in the policy initiatives drifting away from the closed import substitution to export promotion. Fiscal and other incentives including concessional measures relating to production and marketing of exports were initiated by the state. The earlier position to obtain efficiency gains through import substitution and thereby boost exports changed though not significantly. In terms of policy, exports were treated as endogenously determined to respond to the available exportable surplus after satisfying the domestic demand and available domestic import substitution.

The Export Policy Resolution of the cabinet committee during 1970 set a tone of possibility of increasing export growth and thereby reaching efficiency in trade. Subsequently, three official committees were appointed to look into the various aspects of trade policy: The Alexander Committee in 1978, Dagli Committee in 1979 and Tandon Committee in 1980. They suggested various export promotion measures. These measures included budgetary concessions on import licences, input price concessions, freight credit for working capital, capital goods and raw material, direct cash incentives to exporters and duty drawback in terms of exemption from taxes. The Tandon Committee remarked that rapid export growth would certainly help the overall growth of the economy due to efficiency gains in pursuit of dynamic comparative advantage. Two probable reasons were behind such arguments: The first reason was the additional foreign exchange earning and the second one was to achieve better allocative efficiency. It was observed that since 1974-75, the annual growth in export assistance remained at a level which was higher than similar growth rates for net assisted export earnings. The necessity to review the net impact of the export assistance policies on domestic economy was emphasised during this period.

The recommendations offered by these three official committees were incorporated in the subsequent long-term import and export policy from 1985-86 to 1990-91. During March 1990, there were some changes in this EXIM policy framework due to changes in political regimes. But the general theme of liberalisation of imports, especially of capital goods and raw materials, continued to be one of the components. Among the policy measures, relaxation of licensing policy, foreign exchange availability, reduction in cash margins of imports, introduction of EXIM Scrips, the Special Import License Scheme, relaxation in export control marked the important steps. Export encouragement, on one side and import relaxation on the other, formed the main theme of the policy changes. Indications were clear that henceforth the Open General

Licence (OGL) list of imports would expand and this would enhance exports through export-intensive imports. The move was clearly chalked out to confine the list of items under quantitative restrictions to a narrow range. Further, the trade policy that was earlier characterised only by short-term changes to combat exigencies was turned into a long-term consistent policy. But it also raised an important related issue regarding the probable impact on the trends in export and imports of such changes.

It is theoretically agreed that the best type of trade strategy is the one, which incorporates the general trend in the trade environment of the world. While trade arrangements influence the domestic policy formulation, the trade strategy alone cannot change the fundamental domestic development currents. Thus, a domestic non-trade policy environment must supplement the trade strategy. Among the sectoral policies, this applies more to the agricultural sector. The trade policy of India always retained a distinction between the agricultural sector and industrial sector. Some of the agricultural commodities have always been on the forefront in exports (e.g. tea, coffee, tobacco, condiments, and spices) but quite often, the industrial policy environment is not ideal. For many of the commodities, the trade policy has always been controlled through licences, quotas, or canalisation. The quantum of exports or imports was decided more by the movements in domestic demand, actual availability, and domestic prices. Quantitative restrictions in the form of licences and quotas were declared in the Exim Policy and controlled by the State Trading Corporations (STCs). Following the GATT 1988 negotiations, the requirements of the trade policy document were revised and a new EXIM policy document was issued for the period March 1992 to March 1997. This was followed by several short-term measures such as those taken up (during the potato and onion type of crises) and culminated in the recent trade policy statements issued on 1 April 1999 and 1 April 2000. The direction of the new trade policy was quite clear in terms of "tarrification", "decanalisation" and removal of quantitative restrictions in these statements.

Table 3.1: Major Trade Policy Announcements Since March 1990

Year	Changes in Policy
1990-91	a) Interlist shifts: 82 new capital goods items were included in the Open General Licences (OGL) list while 153 capital goods items were shifted from OGL to the restricted list; on grounds of domestic availability and essentiality, 55 items of raw materials, components and consumables were added to the OGL list. b) Restricted Export Price (REP) list was simplified and extended to cover items under limited permissible list (Appendix 3, Import and Export Policy, March 1990) and the canalised list (Appendix 5A). REP licences couldnot be used to import restricted list inputs unless specifically allowed. Value under REP licences subject to flexibility. The licences were transferable and could be used to import non-OGL capital goods, which were permissible. Imports of restricted list items were allowed against REP licences earned on electronics goods exported to the countries in GCA. REP licences on manufactured exports could be used to import second-hand capital goods including OGL items. REP rate structure was simplified. c) Export/ trading houses identified on the basis of threshold limits of Net Foreign Exchange Earnings (NFEEs) to enjoy additional licences on past export basis. These licences, like REP could be used to import a broad range of capital goods, instruments, raw materials and components. A new category of Star Trading Houses was introduced for exports with exemplary export performances. Such houses were eligible for special additional licences, to be granted on the basis of NFEEs. d) Imports of certain essential raw materials and oil/oil-seeds canalised through public sector agencies. Some of these items were importable through REP licences and by export houses. e) Supplementary licences streamlined and value limit raised. f) Blanket Advance licences offered on NFEE basis to exporters with minimum value added at 50 per cent. These licences were on the strict nontransferable actual user basis without any stipulation on the quantity and quality of the imports.
1990	Supplementary licences to be issued on an 18-month basis in June 1990 as against 12 months earlier, resulting in an increased value of these licences.
1990	A 15 per cent cut in free foreign exchange for the grant of supplementary licences to Automobiles, Electronics and Consumer Durable Industries. These industries were no longer treated as eligible for OGL route and had to buy/earn REP licences.
1990	OGL route restored for automobile, electronics, and consumer durables for imports of raw materials, components, and consumables. No fresh import licences to be issued for industrial raw materials and components. Exceptions included capital goods, expecting a lag in utilisation of their licences. Exporters exempted from the ban.

1990	Imports of capital goods subject to higher cash margin requirement at enhanced interest rates. Payments on existing L/Cs directed to ICICI which had unused letters of credit. All foreign exchange outgo on imports effectively stopped by RBI circular.
1990	Exporters annually remitting from abroad Rs 10 crores and above exempted from cash margin requirement against raw material exports. Imports of capital goods permitted as credit lines with financial institutions were opened.
1991	Imports other than capital goods subject to cash margin higher than the earlier 50 per cent rate, to be deposited for opening L/C. The rates of the margin were: under OGL (at 133.3 per cent); Specific licences (110 per cent); Supplier's credit for one year and above (50 per cent). For imports other than capital goods, importers were required to place cash margin for months at stipulated rates. Cash margin stipulation was applicable to all importers excepting POL and certain essential imports plus those by government departments.
1990-91	From April 22, cash margin on imports other than capital goods was raised to 200 per cent on OGL. Similarly, the rate was enhanced to 150 per cent under specific licences.
1990-91	From April 23, REP licences were made conditional on realisation of exports proceeds and exempted from cash margin requirements. Interest rates on post- shipment export credit revised to effect quick realization.
1990-91	Use of bank credit to finance imports discouraged from May 9 by means of 25 per cent surcharge on commercial rates on interest at 17 per cent or above. Capital goods imports were made easier for EOUs, especially with supplier's credit and high export/import ratios.
July-August 1990-91	**Introduction of EXIM Scrips.** EXIM scrips were launched (at uniform rate of 30 per cent of export value) to replace REP licences (in 5 per cent to 20 per cent of fob export value). REP at higher rates continued, CCS to exporters discontinued. Supplementary Licences were abolished except in the case of small scale sector and for foreign producers of life-saving drugs/equipment. Items imported through supplementary licences would henceforth be made through EXIM scrips. Additional licences, which were meant exclusively for export/trading houses, abolished but with effect only from April 1,1992. In lieu of these licences, export/trading/star trading houses would receive additional EXIM scrips at the rate of 5 per cent of fob export over and above the 30 per cent flat rate. But until this took place in April 1992, it had been decided to widen the range of items, which can be imported against additional licences. The range would be the same as that of EXIM scrips.

	All export products were allowed to have uniform EXIM Scrips at the rate of 30 per cent (freight on board) except for metal-based handicrafts, newspapers, journals, gems and jewellery which were continued to enjoy the higher benefits of replenishment. The scope of export services was enlarged and the rate of replenishment of service exports was increased from 10 per cent to 30 per cent of net foreign exchange earnings. Export Houses and Trading Houses were to be strengthened and used as instruments for promoting exports. The government allowed de-controlling of 116 items by allowing their exports without any licensing formalities and 29 items were shifted to the Open General License. Export Processing Zones (EPZs) and Export Processing Units (EPUs) were extended to several sectors of the economy. **Free Imports through abolition of import controls** The range of items that could be freely imported was widened through abolition of import controls. Though consumer goods remained restricted, almost all items of capital goods, raw materials, and intermediaries could be freely imported subject to payment of customs duties. This was done through the introduction of 'negative list of imports' which removed discretionary powers of the licensing authorities. For instance, several items were shifted from more restrictive to less restrictive lists.
1991-92 April 1991 (Exim Policy)	No cash margin from April 1, for 100 per cent EOUs and for units in FTZ/ EPZs against imports for own consumption when exports were to the GCA. Cash margin against export linked REP licences, additional and special additional licences reduced subject to realisation of exports.
October 1991	Actual user conditions for OGL imports discontinued and items from limited permissible list shifted to OGL. PMP units were no longer forced to import listed OGL items via EXIM scrips.
Dec, 1991	34 items shifted from OGL to limited permissible list. Cash margin on imports cut to 50 per cent
Feb, 1992	All cash margins on imports to higher than capital goods removed. **Change in Import Licensing** Major changes in the import licensing system were effected by replacing a large part of administrative licensing of imports by import entitlements linked to export earnings. The import replenishment system was enlarged, restructured and renamed EXIM scrips. EXIM scrips were to be tradable and the premium on the scrips set by the market was expected to represent further incentives to exporters. The scrips also served as a means of allocating imports to market forces.

	EXIM scrips could be used to import items in the limited permissible (Appendix 3), non-sensitive canalised list (Appendix 5A), OGL. Item for actual users (Appendix 6 List 8, Part I and LIST 10), and items in Appendices 4 and 9 (which were earlier importable against supplementary licences).
August 1991	42 items of raw materials and components moved from restricted (Appendix 2-B) to limited permissible list (Appendix 3) which where possible to be imported through EXIM route. Exceptions include SSI and life saving drugs.
Nov 29, 1991	Actual user condition removed for EXIM scrips for permissible non- OGL capital goods imports without any value limit. Same applied to imports by export houses
1992-93 Summary	**Introduction of Special Import Licence(SIL) and Partial Convertibility** In October 1992, the Government granted select exporters (i.e., those exporters with an annual average net foreign exchange earnings of more than Rs. 60 million earnings) freely tradable special import licenses that could be used to consumer goods specified in the positive list. Partial convertibility of the rupee was announced. Exports and recipients of inward remittances were allowed to receive rupees at the free market rate for 60 per cent of the foreign exchange. For the balance 40 per cent the official exchange rate was applicable. This has been commonly referred to as the Liberalized Exchange Rate Management System (LERMS). **Financing of Essential Imports at the official foreign exchange rate** All essential imports were to be financed by the foreign exchange surrendered at official rates while for most other imports (except the restricted and banned items) free foreign exchange from the market was allowed. The customs duty on imports was rationalised. The general duty on project capital goods was reduced from 80 per cent to 60 per cent. In case of capital goods, import duty was reduced from 50 per cent to 60 per cent
1993-94 Summary	**Simplification of Special Import Licence Scheme (SIL).** In this year, the government simplified the SIL scheme, i.e., granting exporters annually exporting more than FOB Rs. 100 million, SILs for an amount varying between 2 per cent and 4 per cent of gross export earnings, depending on the average export earnings; decentralized import of select petroleum products and some fertilizers. Full convertibility of rupee on trade account was announced, i.e., the exporters and those sending remittance to India could convert their export earnings and remittances respectively at the market rate. **Reduction in the number of restricted items** The number of restricted items was reduced to 215. Of these 16, were prohibited, 109 licensed, 34 canalised and 56 subject to specified terms and conditions.

1994-95 Summary	**Further reduction in restricted items** The number of restricted items were further reduced from 439 in March 1990 to 210 in March 1994. **Liberalisation of consumer imports** Additional steps were taken to liberalise imports of consumer goods. The government placed sugar, pulses, edible oils, butter oil and skimmed milk powder on the free import list. Textiles and garments were placed on the list of items that could be imported through SIL.
1995-96 Summary	**Export controls were partially lifted** Items subject to control were reduced to 210 in 1994. Export taxes were abolished. Export subsidies were streamlined. Direct subsidies, in particular, were to be gradually eliminated and sector specific subsidies were to be replaced by more general schemes, such as, not taxing export profits and duty drawback schemes. **Further reduction in negative list of Imports** The EXIM policy was further liberalised. For instance, the negative list was pruned which now contained only a few prohibited items. The import of gifts no longer required a customs clearance permit.
1996-97 Summary	**Encouragement to export houses and star trading houses** Export houses and trading houses were strengthened and used as instruments for export promotion. They were fully exempted from paying the Minimum Alternative Tax of the Union Government. **Reduction in the import duty on capital goods** The import of capital goods under Export Promotion and Capital Goods Scheme (EPCG) was cut to 10 per cent. The threshold limit for zero duty imports was Rs 20 crores.
1997-2000 Summary	**The new EXIM Policy 1997-2000** reflected further strengthening and consolidating of the liberalisation process initiated in the previous exim policy of 1992-1997. The policy for the first time emphasied transparency in export and import policies and sought out to maximise the gains in terms of growth, efficiency, productivity, employment diversification and quality from the expanding global market opportunities. The restricted list of imports was substantially pruned. Import of 542 items were liberalised which includes about 150 items that could now be imported against SIL to the Open General License (OGL) list. Restrictions have been placed on five items on grounds of environment safety, stategic importance, public health and security. Further on 1st April 1999, 894 items are brought under OGL and 414 items under Special Import Licence.

1st April 2000	The Export Promotion Capital Goods scheme (EPCG) were further streamlined. Capital goods including spare parts up to 20 per cent of the cost, insurance and freight value of the capital goods, could be imported at a concessional rate of customs duty subject to an export obligation to be fulfilled over a period of time. Value-based advance licensing scheme discontinued, a new simplified passbook scheme was introduced. The SIL facility was extended to domestic capital goods suppliers. Additional SIL was announced for small-scale industries to explore new markets. The threshold limit for zero duty imports (which was, earlier, 20 crores) was cut to 5 crore for agriculture and allied products. Setting up of Special Economic Zones was treated as being outside the customs territory of the country. SEZ at Piparar (Gujarat) and Tuticorin (Tamil Nadu). Involvement of State Governments in Export Promotion Efforts. Steps towards E-Commerce. Rationalisation of existing Export Promotion Schemes – Deemed Export Benefits Abolition of SIL by 31.3.2001. Removal of Quantitative Restrictions on 714 tariff lines.

Source: Deepika and Deshpande (2003).

Table 3.2: Specific Liberalisation Policies Pertaining to Agriculture Since 1991

Year	Changes in Policy
1991	i) Removing a few items from the negative list of imports ii) Shifting of commodities out of the restrictive list. iii) Shifting a few items from OGL to limited permissible list. iv) A system of advanced licence was designed for providing agricultural exporters with duty free access to imports – procedures simplified. v) EXIM scrips facilities for a number of agricultural commodities and allied products like fish products, cashew, fish, fresh fruits, vegetables, cut flowers, plants, plants material, spices, packed fruits, vegetable products, instant tea, instant coffee, etc. vi) Decanalisation of jute pulp, manila grass, raw fiber, raw jute, in imports and decanalisation of castor oil, molasses, raw jute and sugar.
1992-1997	i) Duty Free Licensing Scheme for agricultural exporters ii) Introduction of special import licence iii) Reduction in the number of restricted items to 215 iv) Agricultural imports other than cereals, oilseeds, edible oils were decanalised. v) Quantitative Restrictions removed on agricultural commodities. vi) Export of agricultural items except onion, and oil-seeds decanalised vii) MEP restrictions on Basamati rice abolished viii) Export controls on all common varieties of rice abolished ix) Private export of durum wheat was allowed - QRs removed x) Import of Palm oil was put on OGL xi) All edible oils except coconut oil, palm oil were put on OGL xii) Export control on sunflower seeds, rapeseeds and mustard were removed xiii) Sugar imports were delicensed
1997-2002	i) Import restrictions on cloves, cinnamum and cassava were converted to canalisation ii) Export of sterillised milk, vegetable oil except groundnut oil delicensed. iii) Pulses, paddy, rice, continued on the list of exports.
1st April 2000	i) 80 items broadly coming under the agricultural and allied sectors were removed from the list of items having quantitative restrictions. ii) Tariff Policy revised.

Source: Deepika and Deshpande (2003).

3.2. AoA and India's Involvement

The inclusion of agriculture under GATT was stalled for a long time right after the Tokyo round and surprisingly, at the behest of the developed countries. The reasons put forth for such deliberate exclusion were many but the political economy of food aid peeped out prominently out of this. Finally, in the Uruguay round member countries agreed to incorporate agriculture as a separate agreement probably overlooking the specificities of the sectors in developing and developed countries. The wide differences existing between the three groups of countries (developed, developing and under-developed), were treated under the blanket provisions of extended time period for compliance and a slightly relaxed leverage for the applied limits. No wonder, the travelogue from Uruguay to Doha as afar as Agreement on Agriculture (AoA) was concerned hardly yielded substantial gains for developing or under developed countries.

The AoA rests on three important components, viz., Market Access, Tariffication and domestic support policies in addition to the bindings from the various other agreements like TRIPS, TRIMS, SPS, Rules of Origin, etc. The negotiations during 1986 to 1994 went a long way in putting agriculture firmly under the GATT discipline. Unfortunately, the Ministerial Negotiations were dragged into more difficult areas and the Seattle fiasco was one such prominent example. Many important issues in AoA could not feature at Seattle due to the overwhelming shadow of the environmental and other arguments put forth by NGOs gathered from world over. The Ministerial meetings thereafter were quite aware of such problems.

In the Uruguay Round, India had agreed to make adjustment in tariff rates for 3,373 commodities/ Commodity groups at 6-digit HS level. In the case of agriculture, India committed itself to tariffication of 673 lines under AoA at 6 digit of HS Classification. A large number of committed lines belonged to commodity groups like edible vegetables, animal or vegetable fats or oils; meat and edible meat, etc. This agreement of India with the WTO anyhow pertained only to the removal of quantitative restrictions. India did not commit itself like many other developing countries to reduce the tariff rates on agriculture commodities. Starting from April 1999, India has been removing the quantitative restrictions on agricultural commodities in phases with reference to the WTO rules after losing the case on balance of payments against the US in the Dispute Settlement Body of the WTO. India, therefore, meets the WTO requirement of phasing out of quantitative restrictions on imports other than on some items where the QRs were maintained through prohibitions or restriction as consumer goods for health and hygiene, or food security reasons as allowed in the WTO. Similarly, the tariffs on agriculture were reduced to a low level of 35 per cent though India did not commit itself to the tariffication programme of tariff reductions. Almost 100 per cent of agriculture product tariff lines were bound in India. Most of the primary products were bound at 100 per cent, processed products at 150 per cent and edible oils at 300 per cent other than soybean and rapeseed oil, which were bound at 45 per cent. Some of the items like silk and cotton are unbound. Thus in all the cases the existing tariff rates are much lower than bound rates. Thus, India has been faithful in meeting the requirements of WTO.

While posing India's stand the Hon Minister of Commerce Shri Murasoli Maran concluded by saying:

> "*In conclusion, we are of the view that the issues which are not yet ripe must remain with the working groups for further study. India, including many other developing countries, are not ready to accept a new set of onerous commitments. The road map already charted by the Uruguay Round Agreements should be the future work programme and this crucial Ministerial Conference should provide negotiating mandate for resolving outstanding implementation issues and clear guidance on mandated negotiations and reviews. WTO is for multilateral trading system only. It should not encompass the responsibility for rule making of non-trade-related subjects. Globalization and liberalization have to be addressed at various forums and not in WTO alone. WTO is not a global government and should not attempt to appropriate to itself what legitimately falls in the domain of national governments and Parliaments. WTO's core competence is in international trade and we would strongly urge that it stays that way. Then only we can save and strengthen the multilateral trading system*".

In the Cancun round, a large number of items under AoA had to be negotiated. But, the atmosphere of the Conference did not lend itself to consensus building. The role of the G-23 group of developing countries led by Brazil, in which India was an active member, influenced the dynamics in the negotiations at Cancun, as the group effectively coordinated to develop a common position on agriculture. Factors like differences over the development of new rules on the ‘Singapore Issues’, differences on agriculture trade reform, a weak response to the cotton initiative, and uncertainty of the ambition, and the flexibility that would be provided in modalities for the non-agricultural market access negotiations also contributed to the inability of Members to agree on direction for further progress in the Round.

3.3. India's Agriculture Trade Under the WTO Regime

The focus of national agricultural policy and programmes in the recent past has been significantly influenced by the treatment of trade in the GATT and the requirements of WTO. Market access, tarrification, reduction in the support measures for trade (subsidies) and relevant domestic policy changes, were the major aspects of changes in the trade regime of agricultural sector.

The trade regime of India prior to 1990 can be categorised as a restrictive trade regime. In the export trends the structural breaks can be located at 1990 and 1995. The breaks in the exports can be attributed to policy changes during those two years. Rice other than Basmati, which constitutes about 44 per cent of total quantity and 20 percent of total value of the exports, dominated the agricultural exports during the years 1998-97 and 1999-2000. Oil meals constitute about 35 per cent in total quantity and about 40 per cent of the total value of exports. When the trade performance viewed in relative terms, during the years 1994-96, the share of India's imports in the world imports stayed only at 0.50 per cent level and that of exports hovered around 1 per cent. An important observation emerges here that even with the process of liberalisation there has not been any significant breakthrough in India's trade performance.

The trade ratios for India's agricultural sector indicate that it was a consistently net exporting sector from 1983 to 96 except during 1988. It is interesting that the trade ratios were in favour of exports in the agricultural sector. Larger share of imports as well as exports was accounted by the basic products rather than the processed products. Among the two, imports were dominated by processed products. This indicates that we could increase the processing facilities to increase the exports of processed agricultural products. In the recent modifications to QR there are a large number of processed products that are likely to get a fresh impetus in the processing industry.

Among the imports linseed oil, jute fibres, silk and milk and cream (dry), wheat and meslin cotton (lint) and coconut oil are the dominant import commodities with high rates of growth. But not all of them had high share in the total value of imports. In fact, jute and fibres, linseed oil and coconut oil showed high rates of growth but claimed only a small share in aggregate imports. These commodities with low share of import but high growth are likely to record a steep increase in the imports. One can feel that the imports of meat and meat products, dairy products, fish and crustaceans, baby foods, soyabean, rapeseed and other oils, and Fruit preparations (including preserved fruits and juices) will increase in their import share.

On the other side, the export trends are positive except in the case of tea, citrus fruits, soyabeans, canned meat and jute fibres. Out of these commodities in the case of soyabeans, canned meat and jute fibres, we have no history of large exportable surplus and moreover the elasticity of export demand of these commodities has also not been very high. But the case of tea and citrus fruits is different. It is necessary to trace the reasons for the failure in increasing the exports. The inconsistency in aggregate trade is one of the major problems of the sector.

With a declining import share and the export share rising since 1988, the possibility of any import surges can be ruled out provided the tariff policy is managed properly (Deepika and Deshpande 2003). Their analysis of prices of agri-commodities indicated the crops viz., tobacco, jute, pepper, wheat, rice, sugar must have higher level of prices due to the removal of QRs. The import of the commodities viz., cereals, milk and milk products, silk, pulses, rubber, lint cotton and vegetable oils may increase. But, the possibility of surges in imports could be dealt with proper tariff structure while the price level can also be managed through proper policy mix. Deshpande (2003) further stressed that the MFN tariff rates of India were much less than that of the bound rates with the WTO implying that there was enough scope for increasing the tariff rates during the time of crisis and also questioned the relevance of the trade policy changes in the light of the surplus and deficits in production as trade trends were strongly related to the production trends. Price integration was also expected to be a faster process in the case of commodities having high demand.

3.4. Karnataka's Agricultural Trade Performance

The trade regime of India prior to 1990 could be categorised as a restrictive trade regime. Less than 10 per cent of the agricultural goods could be freely imported under OGL. Most commodities were either canalised, banned or restricted. The export regime was also as restrictive as import, about 31 per cent of the agricultural produce were totally prohibited from exports, and a sizeable proportion was subjected to export quota.

Consequently, the growth in imports and exports of agricultural products was quite unimpressive. Between 1970 and 76, the agricultural products accounted for 20 to 30 per cent of the total imports. In 1976, the situation changed and the country was net exporter of cereals. In the eighties edible oils formed a large share of the total imports. The change in long-term trends occurred in 1982-83. A peak could be located at 1988 in imports and a structural shift during the following years. Similarly, in the export trends the structural breaks could be located at 1990 and 1995. The breaks in the exports could be attributed to policy changes during those two years. Sparing the years 1993,1994 and 1995, the liberalisation process had not brought any significant breakthrough in the trends in India's agricultural trade performance which called for a fresh look at the policy.

The EXIM Policy of 2000 initiated the involvement of the state governments as partners in enhancing the country's export performance. It was for the first time that the state governments were given a major role in export promotion activities. On this background, it is essential to review the position of Karnataka and its performance under the WTO regime.

Agriculture plays an important role in the economy of the state. Besides contributing a substantial part of the State Domestic Product (about 28.20 per cent in1997-98), it is the largest source of Employment (about 67 per cent). Karnataka has an advantage due to the existence of ten agro-climatic zones, different soil types, bi-modal rainfall pattern and irrigation potential. The state has potential for growing varieties of crops, increasing productivity, cropping intensity in rainfed/irrgated areas and also for increasing area under hybrid/HYV crops.

The state achieved self-sufficiency in food grains, cotton, and sugar production. There was a marginal shortfall in oil seeds production and only about 50 percent of requirement of pulses were produced. Population in the state is expected to reach 5.58 crores by 2000-2001. Foodgrains requirement is estimated to be 98.08 lakh tonnes, which it is programmed to produce 100.08 lakh tonnes during 2000-2001.

Agricultural statistics of 1996-97 indicate that State contributed about 4.6 per cent of total foodgrains to National food basket. In case of pulses, oil-seeds, cotton, sugarcane, and tobacoo, the contribution towards national production was about 5.10

per cent, 7.2 per cent, 8.9 per cent (1997-98), 10.3 per cent (1997-98), and 9.7 per cent (96-97) respectively.

In case of Rice, the yield in the state was above the national average, on par with Andhra Pradesh and below Tamil Nadu yield levels. The state's average yields of Jowar and Bajra were above the national and neighbouring state averages. State occupied the first position in the productivity of Maize in the country. In case of sugarcane and cotton, the yields were above the national levels.

Vast scope exists for the export of cotton, sugar, tobacco and to some extent maize from the state. In spite of the availability of all the production potential, vast gaps exist in yield and technology transfer. This, together with inadequate attention given for grading, packing, storing and processing, commodity-specific and region-specific cost effective post harvest infrastructure, unorganised marketing system for the farm produce and weak marketing information system etc., resulted in non-exploitation of maximum production and export potential of different crops in the state.

In the context of liberalisation and opening of Indian economy, agricultural development can be cost-effective only within the overall economic national policy framework. It is also realised that the state agricultural sector, cannot expand fast, without stronger links with the national and global economy.

Karnataka has been doing quite well as far as its share of exports in the agricultural sector is concerned. If we go by the recent data the total exports of agricultural products from Karnataka have gone up from about Rs.4, 000 crores to reach Rs.7, 200 crores in a span of six years (1994-2000). Karnataka has coffee as its major export commodity followed by cashew and processed food products. A table appended to this note indicates the commodity share of different products in the aggregate export from Karnataka (Source: APEDA). Among the various products, the processed food - fruits and vegetables, floriculture forms the major export items of Karnataka. Among the other crops, Karnataka state has better potential in animal product, floriculture and coarse cereals. It is expected that Karnataka will emerge as one of the major states participating in India's agricultural trade. Even then one has to watch this sector carefully on both the fronts, viz., on the import front in order to protect the interest of domestic consumers as well as producers and on the export front for those of the traders and the producers. In such case, it becomes essential to fine-tune the balance between domestic demand, exportable surplus and import trends. The act of such optimisation therefore, involves a large number of issues that need to be discussed threadbare. Among these issues, the trends in exportable surplus of cereals, pulses and other raw-material going into the processed food sector need to be observed carefully. Secondly, it is feared in some corners that there will be a spurt of imports in primary products possibly destabilising the domestic production process. Therefore, it is necessary to look into the domestic requirement as against probable spurts in the imports. Comparative advantages of certain agricultural products may give a clue but cannot be a final answer to ensure any destabilisation of the production process. The price differentials between the domestic prices in the state, the prices prevailing in the neighbouring states and the international prices have to be watched carefully to protect the interest of the consumers as well as domestic producers. Therefore, the issues emerge in two distinct contexts, viz., (i) the national level issues regarding the countries' participation as a significant partner in the trade sector, and (ii) the role of Karnataka in India's trade sector and implications of WTO for its agricultural sector.

Our endeavour here is more towards understanding the constraints and making best use of the opportunities in terms of policy imperatives. The agricultural situation in Karnataka and implications of WTO is dealt with in a separate technical session. In this session, the implications of WTO for Karnataka will be dealt in two broad components: (i) annual crops, fruits and vegetables, agricultural processed commodities, silk, coffee, milk, dairy and other animal products, and (ii) coffee, cashew, spices and other plantation crops. This session will also concentrate on the understanding of the constraints and exploring the probable opportunities for Karnataka agriculture. A plenary session will bring together the major policy issues for Karnataka's agriculture.

Karnataka is not the foremost state in furthering international trade of the country, but the state is emerging as a strong player in agricultural trade scenario. Horticultural produce, processed products and floriculture are the forerunners in the process. If we go by the data for the latest years, total exports of agricultural products from Karnataka increased from Rs. 1, 910.45 Crores during 1998-99 to Rs. 2, 439.31 Crores during 2002-03. Coffee is a major commodity exported from Karnataka and Cashew and other Agricultural and Processed Food Products follow this.

Table 3.3: Karnataka's Trade Performance in the Recent Past

(Value in Rs. Crores)

Commodity	1998-99	1999-2000	2000-01	2001-02	2002-03
Coffee Products	1,043.72	1,183.93	957.53	881.42	730.65
Silk Products	357.90	521.24	772.39	672.24	746.09
Cashew & Cashew Kernels	238.00	251.55	187.98	163.55	279.83
Agricultural & Processed Food Products	165.31	195.33	237.91	349.51	366.99
Spices	60.00	61.00	73.74	69.12	91.65
Tobacco/Beedi	7.79	16.25	3.23	2.70	3.72
Bangalore Rose Onion	-	-	38.62	48.35	39.38
Gherkins	-	-	-	120.00	139.00
Flowers**	37.73	40.66	40.00	40.00	42.00
Total Agri Exports	1,910.45	2,269.96	2,311.40	2,346.89	2,439.31
Total Exports	10,039.48	12,854.25	16,027.46	20,145.58	26,279.43
% of agri Exports in Total Exports	**19.02**	**17.66**	**14.42**	**11.65**	**9.28**

Note: ** Quantity in Millions Stems

Even though during the last decade it recorded significant gains in the export of some agricultural commodities, Table 3.3 shows the performance during the last five years, and there are strong as well as weak spots. Coffee trade is a matter of deep concern so also the tobacco based products. But, at the same time, silk products, Bangalore rose onions, Gherkins are picking up as favourites. The trends in the other products like spices, cashew and flowers have to be closely monitored. The export earnings improved significantly during the last decade, but the share of agricultural exports to total exports has been declining mainly due to the growth in the exports of non-agricultural commodities.

The State has a very conducive climatic pattern and investment atmosphere to encourage trade. But there are two major bottlenecks that hinder the initiatives. First comes in the form of non-availability of infrastructure, and that causes the price spread. Consequently, the grower does not benefit and incentive is not created. Second, there is a lack of institutional set up to encourage and step up the process of integration of the chain from grower to the final destination. The value addition to this process will act as the best incentive.

The last decade has been very important from the point of view of emergence of horticulture as the most important field for diversification. While the total production of horticultural commodities and the world standing is a matter of great pride, the productivity and quality leave much to be achieved. In the era of globalization, the produce has to be of international quality and globally competitive. The demand for horticultural produce is on the rise due to increasing population, changing food habits, realization of high nutritional value of horticultural crops and greater emphasis on post-harvest management and value addition. There is also considerable potential to exploit export opportunities provided the challenges like fast eroding gene pool, rapid population build up, shrinking land and other natural resources, serious production constraints, both biotic and abiotic and huge post-harvest losses are properly handled.

CHAPTER IV

IMPLICATIONS OF AGREEMENT ON AGRICULTURE

The World Trade Organization essentially negotiates with the member countries and therefore, in a federal setup like India, we do not have specific role for the State Govt. to directly negotiate with WTO. In such situation, the implications will have two layers, first layer at the state where the exportables originate and importables reach. Thus, the implications at the state level are the ground realities. It is the Centre at the higher layer, which will negotiate with the WTO secretariat. As a result the Ministry of Commerce at the Central Govt will be involved in the negotiations, but the implications will be more concerned at the ground level either for the exporters, importers, consumers, producers or traders. Therefore, we chose to enlist the implications at two levels.

4.1. National Level

While analyzing the impact of Agreement on Agriculture (AoA) at the national level, we need to look at it from four different perspectives. First, it is well known that India has an extremely diversified agricultural sector. There are regions which are incapable of participating in international trade and may require large investments to do so. These regions will be at the receiving end both from the point of view of attracting investments towards agriculture as well as the non-availability of plough back surplus in advancing their agriculture sector. Second, India has comparative advantages in a few commodities. This advantage will certainly help in increasing the exports of such commodities, provided we have a continued positive international demand elasticity and there is a continued advantage between the domestic and the world prices. Third, there are non-traditional export commodities, which have to be watched carefully, and India has to take advantage of tapping the market for these commodities. Lastly, India's trade in agriculture is characterised by its non-consistent, volatile nature across markets in terms of time series. It will be necessary to stabilise this with suitable measures.

The impact of Agreement on Agriculture (AoA) on the national economy has to be viewed from three distinct perspectives. The initial reaction comes from the alteration in the support regimes both in domestic sector as well as in the export sector. The aggregate measure of support is allowed at 13.33 per cent of the base level gross value of product with 86-88 base. As India has not crossed this barrier and it is unlikely to cross this in near future, it does not cause great concern presently for us. However, in order to keep a check on the increasing budgetary deficit, it is necessary that the agricultural policy directs the support measures towards the 'Green Box' policies. Specifically speaking, the country should take advantage of providing support to the resource poor regions and designing schemes for reduction of export marketing costs as well as the domestic and international freight charges by recasting the present subsidy regime. In fact, these together will make a large difference in the value added to the exporters and can boost up the exports. In case of commodities where we do not have advantage of lower domestic prices, exports will become uneconomical unless support measures are put in place for a number of commodities. In such cases, in order to sustain the current export trends, the commodities which require price or export support are coffee, cotton, tea, groundnut oil, copra, sugar, wheat and maize. In respect of all these commodities, the average prices for over fourteen years in the Indian wholesale market are higher than those of the world prices. There are two likely outcomes of this: (i) the imports of these commodities may experience a sudden spurt with the removal of Quantitative Restrictions; and (ii) exports will go down significantly because of the price disadvantages. It is in this context that we have to take advantage of the commodities which can withstand such pressure. As far as the variations in world prices and Indian wholesale prices are concerned, we find that the Indian wholesale prices fluctuate more violently as compared to the world prices. Such instability in the Indian wholesale prices may cause spurts in imports and create disincentives to the producers. It is, therefore, essential to watch the price fluctuations at least in a short-term perspective. The Food and Agriculture Organisation (FAO) has projected that the world trade from developing countries to the developed countries is likely to have lower growth rates as compared to the trade between developing countries. Therefore, it is necessary for us to concentrate more on the trade with developing countries where the emerging market is quite strong. Following are some specific implications:

4.2. Implications of WTO

While analysing the impact of WTO provisions on Indian agriculture, we have to consider the specific situation of the agricultural sector of this country. It is a fact that about 80 per cent of our agricultural producers are holding less than 2 hectares of land , which is not sufficient to produce sizeable exportable surplus individually. In addition to this, the agriculture sector has a typical lag lead relationship between the prices and the produce. This acts as a deterrent. Whenever prices collapse, the farmers reduce the area under a particular crop and in turn, the prices increase during the next season/year. This cobweb phenomenon leads to equilibrium only in a close sector assumption. But, when the sector is treated as open to the other economies, it becomes necessary to adjust the welfare / income losses due to price fluctuations. It will be quite ambitious to assume a certain level of price elasticity of demand / supply, income elasticity of demand, the production growth rates, resource allocations and finally, the farmers' response to the market environment. Any assumptions on these counts will lead to erroneous conclusions about the impact of WTO. The above paragraphs have indicated the probable precautions considering the likely impact due to various policies. We have also gone ahead indicating the direction of change to be followed.

Table 4.1: Bird's Eye View of the WTO Implications

S. No.	WTO Requirements	Implications
1	Market Access Tariffication	Tariff policy should be such that the disadvantages due to price differential between domestic and international prices are converted into advantages for the country.
	Bounded tariffs	The policy has to be carefully monitored. Recently in the oil seed sector where there was the possibility of reaching 300 per cent tariff, the policy did not take advantage of this. Similarly, for Arecanut we had the possibility of reaching 100 per cent, the policy did not take advantage of this.
	Guaranteed access to domestic market	Access has to be calculated on the basis of the base period of 1986-88. It is not very clear if such access has to be computed on the basis of quantity or the value of the product. Either way India being a high population density country, the market share of 3 per cent or 5 per cent of 86-88 would be quite negligible. Therefore, this may not cause any surge in imports, which is feared. Even under import surges, India should make use of the 'safeguard clause' giving exemption under traditional staple of a developing country.

		India should also take advantage of special safeguard measures provided against the import surges. Among the special treatment, exemption is provided for primary agriculture product, which form the predominant staple in the traditional diet of the developing country. This has been set at only 1 per cent level and further it is provided that non-tariff measures can remain on these products as well.

contd....

2	Export competitiveness	Export subsidies come under this section. In India, exporters of agricultural commodities do not get any direct subsidy. The only subsidies available to them are in the form of (a) exemption of export profit from income tax under section 80-HHC of the income tax Act and this is also not one of the listed subsidies; and (b) subsidies on cost of freight on export shipments of certain products like fruits, vegetables and floricultural products. These are non-actionable subsidies. We have, in fact, indicated in our schedule of commitments that India reserves the right to take recourse to subsidies (such as, cash compensatory support) during the implementation period.
3	Sanitary and Phyto-sanitary measures	India has to watch the stipulations set out by different export destination countries in terms of sanitary and Phyto-sanitary requirements. We have been pressing for a common code based on FAO codex. If this does not come through, then India may lose on the export orders mainly due to the stringent stipulations coming under the sanitary and phyto-sanitary measures.
4	Multi Fibre Arrangement	The Agreement on Textile and Clothing has been slated to replace the earlier Multi Fibre Arrangement. It is agreed that by the year 2005, the Agreement on Textile and Clothing (ATC) will be totally phased out. Till then, there will be a gradual change in the quotas provided based on bi-lateral agreements. India will have to watch the welfare loss to the textile manufacturers and cotton growers. The phasing out period is given in order to adjust to the changing environment.
5	Agreement on Technical Barriers to Trade	India has to carefully look into the 'Code of good trade practices' for the preparation, adoption and application of standards by standardizing bodies, which should be open to the acceptance of the private sector. An information network has to be created for this purpose through state level nodal agencies.
6	Anti Dumping	There is every possibility of dumped imports, which may cause welfare loss to the domestic producers. At every state -level, nodal agencies have to be created in order to monitor the imports of commodities for which such fear is expected.

7	Trade Related Intellectual Property Rights (TRIPS)	Our law of patents is under review. This review process has to be completed at the earliest and specifically India should argue for "Geographical Indications" of the product being patented under international patents. We have been provided sufficient time period to react about this. It is necessary to utilize this period to strengthen the legal framework through nodal agencies.

Source: Government of Karnataka (2001).

4.3. Implications at the State Level

It is expected that Karnataka will emerge as one of the major states participating in India's agricultural trade. Nevertheless, it is necessary to watch this sector carefully from both the import and export fronts in order to protect the interest of domestic consumers, traders, and producers. In such case, it is essential to fine-tune the balance between domestic demand, exportable surplus, and imports. The act of such optimization therefore, involves a large number of issues that need to be discussed threadbare. Among these issues, the trends in exportable surplus of cereals, pulses and other raw-material going in the processed food sector need to be observed carefully. Secondly, it is feared by some that the marginal and ultra-marginal agriculture practised particularly in dry land areas is non-competitive. The cheap imports of food grains may cause immiserization of farmers, particularly in backward areas with serious adverse consequences on food security. This could seriously destabilize domestic production process. Therefore, it is necessary to look into the domestic requirement as against probable spurts in imports. Comparative advantages of certain agricultural products may give a clue but cannot be a final answer to prevent any destabilization of production process and threat to food security. The price differentials between the domestic prices in the state, the prices prevailing in the neighbouring states and the international prices have to be analyzed carefully to protect the interest of both consumers and domestic producers. Therefore, the issues emerge in two distinct contexts, viz., (i) the national level issues regarding the country's participation as a significant player in the trade sector; and (ii) the competitiveness and vulnerability of Karnataka in India's agricultural trade and implications of WTO for its primary producers, traders and consumers. Here again, the implications are different for food crops as compared to plantation crops. There are serious inter-regional and intra-regional implications of liberalizing agricultural trade for Karnataka. The constraints are as under:

- In Karnataka we do not have raw material growth centres for supplying quality raw materials to processing units. It is necessary to create such centres to feed the processing units with the required quality and quantity.
- There are a large number of infrastructure bottlenecks, which need to be attended to urgently. These include non-availability of water, consistent power supply, good quality roads, proper harvesting facilities like collection and grading centres, washing and packing facilities, refrigerated vans, pre-cooling and cold storages, intermediate cold storages, processing units and an export house. It is necessary that all these be attended to.
- Unorganised and weak domestic market base.
- High interest rates for agricultural investment as well as export finance.
- Subdivision and fragmented landholdings which make it uneconomical for our farmers to use modern techniques of cultivation.
- Low productivity per unit area:

  Eg: Productivity of Onion

COUNTRY	**PRODUCTIVITY** (M Tonnes Per Ha.)
CHINA	61.76
AUSTRALIA	44.51
U S A	42.96
INDIA	**10.62**

- Agriculture Produce Marketing Committee (APMC) cess is a bone of contention of most of exporters, which is collected in addition to the other cess. The Karnataka State Govt can waive this cess for the exporters whose export performance exceeds certain pre decided norms. Such measure will create an added incentive for the exporter.
- In the state we have frequent tripping -off of the power as well as the quality of the supply compels the exporters to depend on captive generation of power. This adds to the investment as well as running cost of the exporters. Steps need to be taken seriously to overcome this problem.

- There is a large information gap between the world market and the local exporters. This happens both due to communication disabilities as well as lack of availability of information from outside. It is quite possible to disseminate the information.
- It is essential to work on short-term, medium-term as well as long-term plan to enhance the export performance of the state.

Box 4.1: Short-Term, Medium-Term and Long-Term Plan to Enhance the Export Performance

PLAN TERM	COMPONENTS
Short Term Plan	Incentive structure in terms of market facilities, information dissemination structure, establishment of Small Farm Export Consortiums, facilitating infrastructure, modification in the Sales Tax Structure.
Medium and Long Term Plan	Establishment of Export Processing Zones, identification of exportable non traditional products, Provision of Incentives to Export-Oriented Units, laying down the requirements of Sanitary and Phyto-Sanitary Measures, institutional arrangement for continuous monitoring and analysis, infrastructure Development.

- It is reported that the rigid governance in the food processing industry leads to 90 per cent of the Mango production from the state getting diverted to Andhra Pradesh and Tamil Nadu for processing. Urgent steps need to be taken in this respect by ascertaining the correct bottlenecks.
- In the Agro Processing industry, a continuous supply of raw material is an important requirement. Captive plantations are required to be provided at various places with proper incentives (especially in the Resource Poor Regions to avail Green Box exemptions). The state can also provide for contract farming for a pooled small and marginal farmers carefully designed and monitored by a state level agency to safeguard the interests of the small and marginal farmers.
- Urgent steps need to be taken in order to facilitate the establishment of International Airport and Mangalore and Karwar Sea Ports.

4.4. Initiatives Required

Karnataka has been recording a reasonable performance as far as share in agricultural exports is concerned. The exports had increased from about Rs.1,127 crores in 1996-97 to Rs. 1,749 crores by March 2000 (Box 5.2). Even then a large number of commodities finding other export destinations, though originating from Karnataka, have not got included here. Quite a few commodities originating from Karnataka are exported to the destinations from outside the state. This export performance can be improved significantly and there can be a further step up in the growth of Karnataka's exports. As far as the implications in the WTO regime are concerned, the following possibilities are enlisted:

- In order to step up the export performance of Karnataka it is necessary to work on three-point strategy, namely; creating an incentive structure, providing infrastructure facilities and facilitating a transparent system of export administration.
- Karnataka has comparative advantage in four sectors, namely, primary agricultural and horticultural products, horticultural processed goods, floriculture, and other primary forest products. It is essential to locate (possibly through a commissioned study) and tap the markets in the world specifically since Eastern Europe, OECD countries and a good number of developing countries are some of the important spots. It will be necessary to map the commodities into winner and looser groups in terms of trade and revealed comparative advantages.
- There are built-in cost disadvantages due to inadequate infrastructure and administration bottlenecks for the exporters in the state. Therefore, immediate steps for compensating such heavy costs either by providing required facilities or by creating an incentive structure should be taken up immediately. This will reduce the pre-export and post-harvest costs. It is due to these heavy overheads that the exporters from the state cannot compete with those outside the state.
- The state should seek establishment of EPZs in promising areas for the commodities having trade advantages. Our note in this report suggests three such regions, namely, Bijapur, Chitradurga and Kolar for the purpose of establishing EPZs for horticultural crops, processed agricultural and horticultural crops and primary agricultural products.
- With lifting of Quantitative Restrictions, the State should keep a continuous monitoring of imports of agricultural, horticultural or floriculture products in the state. The relative prices of these products should also be monitored, since it is quite possible that sudden import surges are likely to create welfare loss and disincentives to domestic producers.
- Imports of technology like Terminator seeds will have disastrous effect on food security as well as sustainability of the local genetic stock of grains in the state. It is necessary to utilise special safeguard measures to repeal this.

- The state govt. should argue for testing of the quality as well as the price differentials of the commodities demonstrating sudden import surges in order to take help under Safeguard measures, Sanitary, and Phyto-sanitary measures, Anti dumping provisions and Technical barriers to trade.
- In Karnataka, it is necessary to work on the present structure of cess charged to the exporters. Currently the structure is APMC cess at 1 per cent, agro processing cess at 0.5 per cent and APEDA cess at 0.5 per cent. All these are imposed on the FOB values of exports. It is easier to waive the 1 per cent APMC cess for exporters so that the exporters get an incentive at least to that extent. This should be waived after recording and certifying exported goods.
- Karnataka can take advantage of Backward Area Development Exemption (Resource Poor Regions) under the 'Green Box' measures by providing infrastructure in the districts of North Karnataka and tapping the export potential.
- The State should also take immediate steps to establish Farmers' Export Consortiums to bring together the farmers with small quantity of exportable surpluses (on lines of Maha Grapes). Such Consortiums can have advantages of providing export subsidies under the ' Green Box' measures and allow small producers to participate. Help can be sought from the Central Government's body on Small Farm Consortiums.
- The domestic prices are quite volatile as compared to the international prices. In addition to this, the price response of the producers creates fluctuations in product availability in the international market. An export linked Income Insurance Programme for the export-oriented producers can insure them against sudden price troughs. This should be designed for the state and operated at the state level.

It is essential to organise, implement and continuously feed the information to the state through a Nodal Agency organised to continuously study the participation of the state in international trade and at the same time protect the welfare of the domestic producers. As a first step, Karnataka is the pioneering state starting a WTO cell for advising the state on matters relating to the subject. It is necessary that the Cell function continuously and monitor the progress of the trade sector in the state. It is also felt that the span of issues under WTO should be widened incorporating goods from other sectors. Industrial produce, software, gems and jewelry, textile products, other raw materials and all products other than agriculture and horticulture should also be covered under the WTO cell. Currently, it is only catering to the agriculture and horticulture sectors.

Box 4.2: Exports Scenario – 2000

GLOBAL EXPORTS	: 5000 billion dollars
AGRI COMMODITIES (6per cent) (13,05,000 crores)	: 300 billion dollars
EXPORTS FROM INDIA	: RS. 1,28,117 crores (18.81 per cent)
EXPORTS FROM KARNATAKA	: 12, 854.25 crores
SHARE OF AGRI EXPORTS	: 1, 749.22 crores (13.61 per cent)

Table 4.2: Initiatives Required for Exporting Agricultural Produce

CROP	PRESENT STATUS	INITIATIVES REQUIRED
MAIZE	At present, the State is exporting maize to neighboring countries like Bangladesh, Sri Lanka etc., and there is good potential	To develop good network of infrastructure facilities for the transportation of this produce and also to increase the productivity.
RICE	Presently the state is not exporting much of the rice grown even though there is good demand for our sona masoori variety	To increase the productivity of rice and awareness has to be created in the international market about the produce of Karnataka. May be we can develop a brand image abroad.
GROUNDNUT SEEDS	GN seeds grown in the state have found good market in Malaysia, Singapore, Indonesia and other South Asian countries.	Urgent attention is needed to develop Mangalore and Karwar ports so that frequency of vessels is increased to these ports and also incentives to be given to State's exporters. It is also required to increase the productivity of GN seeds.
NIGER SEEDS	Presently, Niger grown in the state is being exported to USA, Singapore, Mexico, Australia. Some portion of the seed also finds a place in crushing.	Quality and Productivity of Niger seed have to be improved. Setting up a cleaning plant is to be examined urgently.
SAFFLOWER	Presently, safflower grown in the state finds market in USA and other countries.	Quality upgradation and productivity has to be looked into on war footing to increase the oil content of the product.
BLACK PEPPER	The quality of pepper grown in the state is not up to the export standards. However, exporters based at Cochin are buying this pepper for mixing it with Malabar Pepper	Quality improvement has to be undertaken and create awareness among the growers to export on their own by forming associations on their own.
CHILLIES	Chillies grown in the state are being used for making powders and extracting oleoresins and are exported in a value added form	To set up an oleoresin plant in the state with the active participation from a joint venture partner abroad who also should underwrite the entire production. Encourage domestic processors to put up powdering units. To develop more and more value added products from this product.

MANGOES	Mangoes grown in the state have found place in Dubai, Singapore, Sri Lanka and Middle East.	The quality of the produce has to be improved. Incentives to the exporters need to be looked at seriously immediately.
POMEGRANATES	Pomegranates grown in the state are being exported to Middle East, Singapore, UK, etc	Quality and Productivity are the two aspects, which need immediate attention. Encourage farmers' consortiums to export on their own.
GRAPES	Grapes grown in the state are being exported to UK, Middle East, Singapore and other countries	Incentive to growers who produce quality grapes for exports, and to take steps to grow as per quality standards of Europe & UK
WATER MELON	Water melons have found place in Middle East, Singapore and other countries	Incentives to be given to exporters for freight, package etc., and the quality parameters have to be made known to the growers' associations.
LIME	Already being exported to Middle East and other countries both in fresh form as well as in processed form.	Establishment of a lime dehydration unit at Bijapur since this has good demand in Middle East.
FLOWERS	Presently, flowers are being exported to Europe, Japan and Australia.	Creation of infrastructure facilities at the Airport. Establishing an international airport assumes greater importance. Incentives are to be given to exporters.
GHERKINS	Presently, exported to Europe	Brand awareness in global market is to be undertaken. The problems being faced by the exporters need to be addressed immediately.
CASHEWNUTS	Exported to USA, Singapore, Europe and other countries. Presently, not much of the cashew processing units are located in the state and whatever is produced is being sent from Cochin.	To make available quality raw nuts to small and medium cashew processors based at Mangalore. To develop Mangalore Port so that exporters based there can make us of the facility.
COFFEE	Presently, being exported to USA, UK, Europe and other countries in raw form and to some extent by the MNCs in value added form.	To develop a brand for Indian (Karnataka) Coffee and to encourage exporters exporting value added products like instant coffee, coffee powder in packed form etc.
ONION	Presently, being exported to Sri Lanka, Malaysia, Singapore, Indonesia, Brunei, Mauritius and other countries	To increase the productivity and quality of Onion.
POTATO	Presently, being exported to Sri Lanka, Middle East and other countries	To encourage exporters who export value added products in chips form, powder form etc.
COCONUTS	Presently, being exported to Turkey, Bangladesh etc.	

Source: Government of Karnataka (2001).

Table 4.3: SWOT Analysis

Strengths	➢ Existence of ten agro-climatic zones, different soil types, bi-modal rainfall pattern and irrigation potential enhances the State's potential for growing varieties of crops. ➢ The state has comparative advantage in the yields of Rice, Jowar, Bajra, Sugarcane and Cotton and stands first in the production of maize in the country ➢ The state has better potential in exporting commodities like coffee, cashew, processed food products - fruits and vegetables, animal products, floriculture, and coarse cereals. ➢ Vast scope exists for export of cotton, sugar, tobacco and to some extent maize from the state.
Weakness	➢ Non-availability of water, consistent power supply and good quality roads ➢ Subdivision and fragmented landholdings and low productivity per unit area ➢ Vast gaps in yield and technology transfer ➢ Inadequate attention given for grading, packing, storing and processing ➢ Built-in cost disadvantages due to inadequate commodity-specific and region-specific cost effective post harvest infrastructure ➢ Unorganised marketing system for the farm produce ➢ Existence of weak marketing information system leading to large information gap between world market and the local exporters ➢ Lack of raw material growth centres for supplying quality raw materials to processing units ➢ High interest rates for agriculture investment as well as export finance ➢ Rigid governance in the food processing industry
Opportunities	➢ A three-point strategy of creating an incentive structure, providing infrastructure facilities and facilitating a transparent system of export administration can step up export performance in the State by reducing pre-export and post-harvest costs. ➢ The comparative advantage of the State in the four sectors - primary agricultural and horticultural products, horticultural processed goods, floriculture, and other primary forest products has to be tapped by removing infrastructure bottlenecks through the establishment of EPZs in promising areas (Bijapur, Chitradurga and Kolar) and also locating world markets and mapping the commodities into winner and looser groups in terms of trade. ➢ Karnataka can take advantage of Backward Area Development Exemption (Resource Poor Regions) under the 'Green Box' measures by providing infrastructure in the districts of North Karnataka and tapping the export potential. ➢ Captive plantations with proper incentives (especially in the Resource Poor Regions to avail Green Box exemptions) can cater with continuous supply of raw material to the Agro Processing Industries ➢ Establishment of Farmers' Export Consortiums bring together the farmers with small quantity of exportable surpluses enhancing their participation as well as reap the advantages of export subsidies under the ' Green Box' measures ➢ Establishment of an International Airport and Mangalore and Karwar Sea Ports can boost the exports. ➢ An export linked Income Insurance Programme designed and operated at the State can insure the export-oriented producers against sudden price troughs

contd...

Threats	➢ With the lifting of Quantitative Restrictions, sudden import surges of agricultural, horticultural or floriculture products are likely to create welfare loss and disincentives for domestic producers and hence destabilise the domestic production process. ➢ Imports of technology like Terminator seeds will have disastrous effect on food security as well as sustainability of the local genetic stock of grains in the state. These need to be monitored with the help of a proper institutional mechanism. ➢ Patenting of germplasm of indigenous varieties. ➢ The role of MNCs has increased in the domestic market with the opening up of trade, especially in the input market. The MNCs are profit-motivated and there is a fear expressed about the exploitation through high prices, which can hike the cost of cultivation. ➢ There is continued emphasis on reducing the subsidies in agricultural sector. Despite this, the subsidies in the developed world have continued to exist which have their influence on the international prices making the developing countries less competitive on account of high prices. The framework of agreement of the Geneva WTO General Council Meet, 2004, required the developed countries to do away with the subsidies by a minimal 20 per cent reduction in the very first year of the implementation period as a measure of compliance to the WTO norms. In reality, the permissible limits of agricultural subsidies in developed countries have been pegged very high as compared to the actual level of subsidies and this provides them a big cushion enabling to make liberal commitments without actually undergoing any reduction. That works as a continuous threat to the developing world. ➢ The Agreement on Textiles is coming into effect in 2005 and with the lifting of the quotas the likely impact on the textile trade is unpredictable. ➢ Even after the lifting of Quantitative Restrictions a new form of QRs exists in the form of Sanitary and Phyto-sanitary measures. ➢ On the negotiating platform of WTO, the partners from groups of countries (EU, Cairns Group) operate in unity among themselves whereas the opinion is divided among developing countries that make the negotiations unsuccessful. Towering united resistance was witnessed in the Cancun Summit by the G-21 group of developing countries. But, this spirit did not last until the Geneva talks when the rich nations and the US in particular succeeded in distancing Brazil from the G-21 group and later, India joining Brazil in the group of "Five Interested Parties" (FIPs). This cannot gain anything substantive for the developing nations in real terms. Therefore, the negotiations are in the arena of international politics.

Table 4.4: Stakeholder Responses

WTO Provision	Stakeholder Response
Market Access	• The process of tarrification should be transparent and the States involved must be consulted before finalising the process. • Trade sensitive commodities should be monitored at the State level as well as by the Ministry of Commerce. • Safeguards against eventualities be made known to the stakeholders in advance. • Surges in imports must have the requisite safety nets.
Export Promotion	• Information dissemination about the exportables should be in the local languages. A special telecast time should be associated for promoting export link to the producer. • Packaging and other infrastructure should be made available to the participating exporters. • Information about demand for various products and the requirements of sanitary and phyto-sanitary measures should be made known to all the participants.
Domestic Support	• Domestic support in the ecologically fragile regions and economically weaker sections may be stepped up to induce them to participate in trade. • Presently, we do not have any actionable subsidies and still we have scope for providing subsidies under Green Box. But, the misuse of Green Box by developed nations has to be strongly objected.
SPS	• Basic contours of the SPS measures are not clear to many of the stakeholders. Presently, the existing grey zone causes disincentives. Information sharing and basic requirements about products be shared with the stake holders. • Product-wise requirements about SPS of the trading partners need to be available.
TRIPS	• It is not clear to the stakeholders if India has agreed to all the requirements of TRIPS. Significant information gap exists in this area of WTO for the indigenous traders.
TRIMS	• India still has a long way to go about the TRIMS, but presently the country should be ready to face agreements on General Agreement on Trade in Services (GATS).

CHAPTER V
FUTURE ACTION POINTS

The following proposals can be placed for consideration in order to further the interest of Karnataka in the national perspective and that of the country at the international level. It is necessary to follow the specific stipulations of WTO and their implications to the state as well as the country while negotiating with the WTO and finalize the Agreement on Agriculture. The following proposals are suggested to be taken up with the Govt. of India in order to obtain advantage in the present situation.

5.1 Immediate Points of Action

- **Participation of the State in Policy Discussion at the Centre.** Agriculture being a state subject it is necessary that the Central Govt. discusses with the state regarding the policies pertaining to the Sector. Recently the agriculture policy document released by the Central Govt. had come under criticism as it had not been discussed with the respective state governments. We suggest that the participation of the state representatives be made compulsory while framing policies pertaining to agriculture so that the state governments can put forth views based on the prevailing circumstances in the interest of the State as well as that of the nation. Similarly, the state govt. should also bring forth its policy with full participation from district levels.

- **Request for funds on EXIM policy.** The Exim Policy modifications declared by the Ministry of Commerce on 1st April 2000 urges the states to participate vigorously in order to improve the export performance. The Commerce Minister declared with a view to making exports a national effort by involving all the State Govts., A Scheme has been evolved for granting assistance to the States on the basis of their export performance for development of export related infrastructure. To facilitate an equitable allocation of resources, this amount will be distributed on the basis of absolute export performance as well as on the basis of incremental one. To begin with, an allocation of Rs.250 crores was proposed for the year 2000 which would be suitably increased in the subsequent years. There would be subsequent annual allocation for this Fund. The amount could be utilised by the states for complementary export related infrastructure, such as roads connecting the production centres with Ports, research and development of state-specific ethnic products, development of cold chains for agro exports, development of minor ports, creation of new export promotion industrial parks, human resource development and for the purpose of developing marketing infrastructure. The state government should take advantage of this.

- **Priority commodities for the state needing particular attention.** The State of Karnataka has made significant progress during the last 3 years in creating exportable surplus specifically in Horticultural primary commodities and processed products. However, the progress of the state has not been very commendable due to infrastructure bottlenecks and the price disadvantages. Among the commodities that require special attention on production, market channeling and processing we include Maize, Groundnut Seeds, Niger Seeds, Chillies, Mangoes, Pomegranates, Grapes, Lime, Flowers, Gherkins, Cashew Nuts, Coffee, Onion, Potato and Vegetable Seeds. We have indicated elsewhere the specific problems of these commodities. The State should take initiative in establishing Commodity Boards especially for the targeted commodities so as to create proper incentive structure and market atmosphere for these. It is necessary to continue state canalization for some essential commodities like Bangalore Rose Onion etc. The reason is that these commodities are grown only for exports and the farmers (mainly small and marginal) who are cultivating this crop will be directly affected if their interests are not safeguarded.

- **Special safeguard measures and Phyto sanitary measures.** Their exists a large information gap in the prevailing provisions under safeguard measures, sanitary and Phyto-sanitary measures. The state should take steps in order to educate the exporters in terms of these requirements specifically from the point of view of the destination countries. In addition to these, specific problems likely to be confronted in view of the common code should be dealt immediately.

- **Utilization of bound duty to our advantage.** The provisions under bounded duties are not being sufficiently utilised under the pretext of providing stipulated market access. It is imperative to state here that we do not have any problem as far as AMS or market access is concerned. However, in order to insure the domestic producers against sudden fall in prices, it is necessary to utilise the tariff policy given under the bounded tariffs to the advantage of the country.

- **Domestic Price Advantage.** Government of India must take into account the domestic cost of production of crops and agricultural commodities while fixing the import tariffs. While arriving at import tariffs for various commodities imported we must take into account the cost of production, vagaries of nature, and also the minimum standard of living of our domestic producers into account.

- **Green Box Measures.** Government of Karnataka should work on the Environmental Fragile Zone (Bijapur, Gulbarga, Bidar etc) concept in order to derive benefits under WTO provisions. This would help the development of backward areas of the state while complying to the WTO provisions also.

- **Establishment of a Nodal Agency.** Now that our membership in WTO is given we must take advantage of the provisions and negotiate towards the beneficial trade environment for the country. In order to create such trade environment and given the federal character of the country it is necessary to create a two layer structure, one at an apex level with the Ministry of Agriculture, Govt. of India and another at each of the state headquarters linking the export houses in each of the state with that at the Agriculture Ministry. Karnataka has taken a step towards establishing a WTO cell in the state. This cell can continuously monitor and discuss various policy options and suggest ways and means to deal with them in the coming years. The nodal agency shall also collect and disseminate information to the concerned parties.

- **Special studies to be initiated.** The government and other specific agencies in the field of developing the trade sector should initiate studies in the following areas:
    i. Trade prospects of Poultry, pork, milk and milk products, mushrooms, honey, and vanilla as some of the emerging commodities wherein Karnataka has a relatively better advantage.
    ii. Studies on the details of other crops to be promoted for the purpose of export and revealed competitive advantages of different commodities entering trade.
    iii. Studies on crop genetics, new varieties, post harvest technologies and trade requirements.

iv. To identify the ecologically fragile regions and resource for regions of the state up to taluka level in the state. Such study should also include the conditions of the Western Ghats as a special ecological region.
v. Studies involving competitions of competitive as well as comparative advantages and the important export trends of such commodities having special position in trade and originating from Karnataka.
vi. Studies on ascertaining the role of regional trading agreements and multilateral trading systems should be initiated in order to find out the relative advantages.
vii. Studies on the requirements of sanitary and Phyto-sanitary (SPS) measures and the trade related intellectual property rights should be initiated with experts on the technical side.

5.2. Specific Points for Consideration

- The liberalization of non-agricultural sector is welfare augmenting for the agricultural sector as compared to the total liberalization scenario
- Computable Applied General Equilibrium Model indicates prospects for increase in the net exports of wheat, rice, dairy products and non-food agricultural commodities whereas, the import of non-agricultural commodities is likely to increase.
- It is essential to create a balanced view and proper mind-set for internal reforms to alleviate the probable ill effects of the process. Elaborate planning and formulations have to be taken up in order to adjust to the emerging situation.
- Agriculture sector can be brought under concurrent list so that policy measures can be effectively manoeuvered.
- It is necessary to prepare fully with the required homework before entering into the negotiations at WTO. Such discussions can be held both at Central and state level agencies.
- Some of the support measures like crop insurance, drought-proofing expenditure etc., should be considered. These will have welfare augmenting effect on the sector and may not inflate the AMS.
- It is essential to establish a Nodal agency at the state level to deal with the emerging situations and continuously monitoring the state’s role in international trade.

- The State agency should ensure horizontal integration across departments within the state and vertical integration with the central agency.
- Marginalisation of agricultural holdings necessitates cooperative or corporate agriculture by providing quality seeds and inputs. Such policy steps should be taken with full participation from the farmers.
- It is essential to intensify investment in the agricultural sector both at the center and the state level. The private component of such investment should be more effective to augment the growth performance.
- High value specialized crop sector should be concentrated upon in order to encourage export orientation.
- The spice derivative industry has been facing non-tariff barriers under Sanitary and Phyto Sanitary Measures. It is essential to argue the case of these commodities effectively.
- Indian coffee is also likely to face the situation of orchratoxin contamination. It is necessary to work on both economic and technological fronts to confront the problem.
- Special attention may have to be paid to the environmentally fragile zones like Northern Karnataka in order to derive benefits under WTO provisions.
- Seed industry in Karnataka is emerging in the recent past. It is felt that agro-processing and seed industry need full encouragement to participate in the world market.
- Investment in research and development has not been up to the mark. It is necessary to step up R & D investment to compete with the efficient production processes.
- The growth rates of many of the exportable crops are decelerating in the state. Steps need to be taken to boost up growth either through new cultivators or by providing economic incentives.
- The export performance in the sericulture sector needs to be watched carefully. The state can take best advantage in floriculture, sericulture, poultry, oil-seeds and agro-processing sectors. Investment should be directed towards these sectors.
- Specific proposals regarding the above suggestions have to be worked out keeping in view the resources, expertise, skills, comparative advantages, required investment and economic viability.
- The cell recommends that India's concern on food security, rural employment and need to protect the environment should not be neglected in a purely market-oriented

approach. It is necessary to adopt market-friendly approach without government support. The use of marketed inputs, credit and creation of infrastructural facilities will naturally gear the production process towards attaining better productivity, higher incomes and will reduce the vulnerability of weaker sections to the market fluctuations.

- In order to decide the levels of bonded tariffs it is necessary to ascertain as to what would be the adequate and feasible levels for India keeping in view the agriculture production scenario, export competitiveness and domestic market reforms. These should, however, be discussed with the concerned state before taking policy steps.
- The continuance of state trading enterprises in a relatively uncertain market will be of great significance. Such exercises must be continued and this will help to act as buffer between the domestic market distortions and international market demand.
- The declaration of tariff rates should be more transparent and must be decided in consultation with the state governments, especially those states which have these products as their major products.
- India should endeavour to argue for "Development Box" which includes measures to create a level playing field for developing countries.
- The WTO cell should collect, analyse and disseminate information pertaining to trade related aspects and product-specific domestic trade related data for the purpose of enhancing the trade environment. The cell should also monitor and provide the required information to the government and farmers as well as traders for the purpose of making the trade sector more efficient. Such information should be created and concurrently given to the concerned stakeholders so as to meet the emerging challenges within the stipulated response time.
- The WTO cell should translate the required information in the local language for the use of farmers and traders and regularly disseminate such bulletins to them.

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