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Blueprint for plantation sector prosperity*

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Agriculture accounts for 22 per cent of the GDP and provides livelihood to 58 percent of the country's population. Plantation crops play a major role in Indian agriculture. These crops are broadly classified as estate crops consisting of crops like tea, coffee, rubber and small holder's spices / plantation crops like black pepper, coconut, cashew, arecanut, cocoa etc. They occupy an area of about six million hectares (including that of spices), which is about 3.4 % of the gross cropped area. They could generate an annual income of more than Rs.5,52,590 million and an export earning of Rs.93,350 millions during the year 2002-03. Plantation crops serve a variety of human needs such as food, oil, industrial raw materials, beverages and confectionary items. They generate huge employment opportunities directly or indirectly to several millions of people in their production, processing, marketing and international trade sectors. In terms of agro-climatic conditions, these crops are cultivated predominantly in the humid tropics and tropical belts of the country extending throughout the Peninsular India comprising Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Goa, parts of Maharashtra and the north eastern region. They are cultivated in a wide range of soils from sandy to laterite soil.

- **Food processing sector**

Rapid growth of food processing is necessary

Food processing enhances shelf life and adds value even if the agricultural produce is merely cleaned, sorted and packaged. Further processing into high value-added product is even more advantageous. Value addition enables remunerative prices to farmers and enhanced shelf life simultaneously leading to reduction in wastages. Food processing is moreover employment intensive and creates 1.27 jobs directly and 3.64 indirectly for every Rs.1 lakh invested. It provides convenience and safe food to consumers. It promotes diversification and commercialization of agriculture by providing effective linkage between consumers and farmers. It makes farm produce more exportable - the share of the processed food in the global food trade over the last 20 years has increased from half to two third and the trend is accelerating. Promotion of food processing, thus, is necessary for the national economy, farmers and consumers.

Rapid growth of food processing is inevitable

Growth of food processing sector is also inevitable with rising incomes, favourable demographic transition and changing consumption pattern. In the near future, households in India would shift substantially to the higher income group. Estimated number of households in India is given in Table 1.

Table 1. Estimated number of households in India (in millions)

Annual income (Rs.)	2001-02	2006-07	2009-10	2014-15
16,000	24	17	12	7
16,000-22,000	33	20	14	7
22,000-45,000	74	82	81	73
45,000-2,15,000	46	76	95	127
>2,15,000	2	5	9	20

It is further estimated that population in the age group of 20-54 years, which can afford and would need convenience food, would grow at 3%. [1991 - 370 millions, 2001 - 452 millions and in 2010 - 557millions]. In addition, food consumption is continually shifting in favour of packaged / processed food.

Status of the food processing industry

McKenzie report (1997) has estimated the size of food processing industry in India at Rs.80,000 crores in 1997, Rs.1,50,000 crores in 2003, Rs.2,00,000 crores in 2005

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and Rs.2,50,000 in 2008. M/s. Rabo has estimated total food consumption in 2002 at Rs.4.00 lakh crores (at 1993-94 prices) and growth rate at 7.8% during 1995-96 to 2001-02. Demand in 2015 is projected to be Rs.10.00 lakh crores. It was further observed that, between 1993-94 and 2000-01, manufacturing of food and beverages grew by 70%, while agriculture and livestock grew by 3.7% only. During 1993-2000, output addition in food manufacturing was Rs.90,000 crore, while in Information Technology sector, it was Rs.30,000 crore and in Pharmaceuticals, it was Rs.15,000 crore only.

As per National Council for Applied Economics Research estimates, the food processing sector grew at about 7% during the 9th Plan and this growth rate would continue in the 10th Plan, if no major efforts are made. This rate is sub-optimal given the opportunities within and outside the country. Level of processing is very low and varies from sector to sector and is estimated at 2% in the case of fruits and vegetables. It is very high in developed countries and in many developing countries (80% in Malaysia, 30% Thailand). Similarly, value addition in India is estimated at 7% as compared to 45% in Philippines and 23% in China.

Status in global trade

Reasonable share in global trade is a good indicator of health of the domestic industry. It also ensures continuous upgradation of technology, product and management practices. India's share in the global food trade is about $ 450 billion - around 1% (Rs.33,000 crores) and constitutes mainly of commodity and primary processed items where price realization is low. There is a wide fluctuation in year-to-year growth for most of the items, which shows exports are largely opportunistic in nature. Competitiveness of Indian export items is coming down, eg. India slipped from first to third rank in tea export. It is not competitive even with Vietnam in marine products and spices. India is gradually becoming a source of the last resort. Indian exporters are small scale, undercut each other, export low value-added products to small traders / agents overseas or bulk packaged commodities for processing and re-packaging overseas where real value addition takes place. Exports have virtually stagnated over the last five years excluding some minor items like milk products and confectionary. In fact, it has declined in major items like tea, spices and coffee.

Steps taken so far to promote food processing

Food processing is declared as a priority sector in India and the new foreign trade policy places renewed emphasis on agro-based industries. No industrial license is required for food processing except for alcoholic beverages and a few items reserved for small-scale industries. 100% Foreign Direct Investment is allowed except in alcoholic beverages and items reserved for small scale industries(SSI). Foreign equity up to 25% is allowed even in SSI reserved items. For equity beyond 25%, export obligation of 50% would apply. Agro based units established in Special Economic Zones and 100% Export Oriented Units are allowed (a) sales up to 50% in domestic tariff area and (b) import of capital goods and raw materials at zero duty. Income tax rebate is allowed for 100% of the profits for first five years and then 25% for the next five years in case of new food processing industry in fruits and vegetables. Excise duty on processed fruits and vegetables and dairy is zero, on processed meat and poultry, it is 8%. In addition, future commodity trading is allowed in agro produces. Food Processing Ministry in Government of India provided soft loan in 9th Plan for setting up / modernization of food processing unit. It is given entirely as a grant in the 10th Plan.

VISION 2015 - for food processing sector

India to be the food factory of the world so as to generate income, employment and foreign exchange in a big way, by increasing level of processing, value addition and increasing share in global food trade from 1 to 2% simultaneously building quality image for Indian food products.

Scope for food processing enterprises in plantation crops

Prevalence of diverse agro-climatic conditions suited for successful growing of various plantation crops in India gives a large scope for food processing enterprises in plantation crops. Availability of well-established research and development organizations to study the specific problems of the individual plantation crop in detail and to come out with the appropriate technologies provides great opportunities. Availability of rich genetic resources with a high degree of variability to select for the specific traits suitable for the problem areas of the crop also provides an added advantage. There is a growing demand for organically grown plantation crop produces throughout the world and particularly in the developed world and specifically in this area India has the competitive advantage to exploit this opportunity. There is an excellent scope for value addition to the plantation crop products. For example, from the coconut crop, the following types of food products could be profitably produced: desiccated coconut, coconut chips, coconut milk and related products, bottled coconut milk, coconut cream, dehydrated coconut milk, virgin coconut oil, coconut jam, coconut syrup, low fat desiccated coconut, edible copra, ball copra, edible cup copra, milling copra, coconut oil from copra, snow ball tender coconut, packed tender coconut water, bottled coconut water, coconut water concentrate, coconut vinegar, toddy and its products, products derived from unfermented toddy like jaggery, fermented toddy and its products and bottled toddy. In addition, Indian plantation crop products have intrinsic quality characters, which need to be exploited in the international market. To achieve these aspirations, the concept of agribusiness demands better attention from the plantation sector.

Impact of globalisation

The World Trade Agreement (WTA) leading to the establishment of the World Trade Organization (WTO) came into effect in January 1995. India has removed all quantitative restrictions (QR) on all agricultural and other trade related commodities in 2001. All these resulted in a unified world market without quantitative restrictions, strong competition among producing and exporting countries and demand for high standard of quality and sanitary regulations by importing countries. Trade liberalization and globalization poses serious challenges to the Indian agriculture in general and to the plantation crops sector in particular. Researchers opine that the impact of globalization would make changes in the socio-metric dimensions of rural India. Globalization is a concept that marks a significant break in the flow of social processes-a concept that subverts the very objectivity that fixes its meaning (Appadurai 1997). Under these situations, for achieving sustainable growth, Indian agriculture should lay additional emphasis on the commercialization of farming and a holistic approach needs to be followed in integrating the three major aspects of farming viz., input management, production systems and output marketing. In short, the concept of agribusiness management needs to be adopted for the growth and development of Indian agriculture.

Emerging trends due to WTO

With globalisation, the trade and agriculture are beginning to be governed by new rules of the game. The post WTO phase would provide opportunity and would also pose threats. Competitiveness would be determined by the competitive advantages in terms of climatic suitability, management strategies and infrastructure. Sanitary and phytosanitory measures would become a barrier, if they are not harmonized and conditions are not made favourable to face the challenges. Value addition to each and every part of the farm produce is a way to make their production profitable. In this era of free trade, comparative low cost of production and high quality standards are important aspects reqired to be competitive in the world market. To cut down cost, there is a need to emphasize on non-monetary inputs like cultural practices and to recycle the farm bio-waste and permit free play of a host of bio-control agents. There is also a need to synthesize traditional wisdom with modern scientific technologies. The plantation crops based economy in various parts of India can expect a revival from the negative impact of liberalized imports only when the profitability of their farming is delinked from the price behaviour of primary commodities. This is possible to achieve through efficient utilization of the land under the plantation crops and also the products at the on-farm and community levels. As the farming has close linkage with other aspects of rural life, it is not to be treated in isolation but only as a component of integrated rural development.

In the pre WTO era, there was only one-way movement of spices from producing countries to consuming countries. But after the removal of quantitative restrictions, spice trade between producing countries also came into existence due to restriction and reduction of import duties. Though Vietnam is not a member of International Pepper Community (IPC), it has emerged as the largest exporter of pepper in the world market because of free trade. The tariff for import of pepper from Sri Lanka to India has been reduced to nil, due to bilateral agreement. This resulted in the flow of low quality Sri Lankan pepper to the Indian domestic market, leading to low demand for high priced Indian pepper. As a result of free trade agreements, there is a strong competition among exporting countries. This has lowered the price of major spices in the world market. Import duty from other countries is retained at 70 per cent. During December, 2004, Government of India abolished the system of advanced licensing where nil import duty was levied to facilitate export as a value added item. The Government of India has also enacted 'Geographical Indication (GI) Good Registration and Protection Act' in 1999. As a major producer and exporter of spices, India has to gain from this Act.

At present, small exporters are battling with non-tariff barriers such as fast-changing certification and testing norms to access European Union and US markets. In addition, the following types of new barriers are also emerging:

- Spot checks by big buyers for compliance with child labour norms

- Expensive certifications like Fami-qs and Oekotex put Indian exporters at a cost disadvantage
- Stringent labeling requirements & documentation verification in the US

Strategies Plan for plantation crops

Plantation crops may not be 'essential commodities'. But from the point of view of employment and foreign exchange earnings, their commercial importance to the farm economy cannot be underestimated. Commodities such as tea, coffee, cashew and pepper have always had a significant level of export orientation. Malabar black pepper and Darjeeling tea, for instance, are sought after in the overseas markets. However, over the last three to four years, the plantation sector has been facing unprecedented challenges. If declining export prices and falling export volumes have led to loss of market share, increasing competition from low-priced imports is pushing domestic prices down, much to the discomfiture of primary producers. The situation is widely seen as the fallout of the removal of quantitative restrictions on imports and the signing of bilateral trade agreements with neighbours, but in reality these are hardly the major causes.

If tea gardens are abandoned, Indian coffee goes abegging due to a glut in global market, pepper crashes to the lowest prices seen in recent years, coconut oil consumers here pay twice the international price and raw cashew imports are higher than domestic output. These are not to be seen as isolated, commodity, centric developments, but as symptoms that point to a deeper malaise. There is a common thread running across most of the plantation crops, a feature that came through clearly during the recent India International Commodity Fair and Conference in Kochi that covered as many as seven commodities - tea, coffee, rubber, cashew, coconut, coir and spices.

The export competitiveness of plantation crops is clearly under threat. Low productivity and inferior quality are the bane of the sector, in general. The output base is hardly strong as the sector, as a whole is under-invested. Big players have unfortunately not ploughed back enough profits into strengthening the supply chain. Inadequate investment in research and development affects productivity while making Indian produce more expensive. The industry cannot escape being criticized for its excessive dependence on export markets - which, by their very nature, are fickle - and for failing to improve export competitiveness in terms of quality and price. Worse, it has failed to service and nurture the burgeoning domestic market.

As for the role of traders, the less said the better. Futures trading in plantation crops would surely help price discovery and price risk management, but will hardly be a substitute to investments actually flowing into the sector. Clearly, in future, the market for plantation crops is not outside the country, but within. This is not to suggest that the goal of export should be abandoned; it is only that the priority should change. Establishing backward linkages is the way forward for big players in commodities such as pepper and cashew. Some of the Commodity Boards seem to be outliving their utility. They need to be revamped and professionalized in the context of increasing integration of the domestic market with the international market. There is much to learn from competitors such as Vietnam, which entered the international scene not long ago, but has raised its market share through aggressive marketing facilitated by lower production costs.

Agribusiness orientation

Agribusiness management encompasses the activities of agricultural sector, which ultimately ends up with the integration of production, processing, marketing and international trade under an organizational network, which includes supply of inputs of farm reaching down the final consumer by vertical integration. Thus, agribusiness explores production, marketing and trading of agricultural based products. This will include improved techniques of production, use of fertilizers, pesticides and agricultural machinery. Also, making the decisions what to produce, what form to be obtained, post harvest handling, storage, transportation, packaging and labeling. Besides other critical management issues such as financing, technology assistance, production for exports, issues on overseas marketing and Government Policy implications.

Prospects of agribusiness in India

McKinsey & Company, Inc. and the Confederation of Indian Industry conducted an extensive study of the current prospects for the Indian agribusiness. The report shows that food offers one of the largest opportunities in India today. This will demand substantial large-scale investment.

Challenges facing agribusiness orientation

Agribusiness in India faces many challenges such as

- India today invests only 3% of its Capital Formation in Agriculture
- Shortage of Infrastructure for Agricultural sector
- Lack of Integrated Perspective on the Food / Agro-Products Value Chain

- Farmer linkages to Demand Side of the Food / Agro-Products Value Chain is weak
- Government Support and Subsidy Schemes are inequitable in distribution and have progressively distorted the market
- The Management Revolution of India (in IT/BT/Services) has largely eluded the Agriculture Sector
- Indian farmer has limited land, financial resources and market knowledge
- Within this constraint, Indian farmer's living standard needs to improve
- Private Sector seeks profitable investments in Agribusiness sector
- The task of moving food from Farm Gate to Food Plate is a complex process involving various local, national and international agencies and networks
- Linking farmer to the Demand Side of the Food Agro-Products Value Chain can ably sustain his living standard
- Markets for agro-products change constantly with
  - Consumer Preferences
  - Technology & Information Flow
  - Prevailing Policies and Business Environment

Promoting group approach

Group approach helps to overcome the limitation of small size of holding in utilizing resources and improved technologies and also provides opportunities for better social integration among farmers. Following the success of group farming in rice in Kerala, group management approach in coconut production was taken up by State Department of Agriculture in implementing the Comprehensive Coconut Development Programme (CCDP) during the period from 1994-95. The programme was implemented through local level farmers association viz. Kera Vikasana Samithy (Coconut Development Committee). In the post harvest processing of coconut, there is immense potential for organising cultivators with small and marginal holdings into viable groups to overcome the limitation of scale of cultivation. Apart from the group management of resources, these farmers group can be effectively utilized for organising educational programmes for the benefit of the member cultivators. Moreover, these groups can act as an effective link between various systems engaged in the technology generation and dissemination.

Knowledge Centric Approach

In knowledge-driven development, there is need for providing extension education keeping in view their diverse needs not only on production procedures, but also quality certification and reporting procedures, grading, packaging, storage, transportation and other requirements of both domestic and export markets. The farmers need to have knowledge about the whole range of agri-business, production systems, research institutions, programmes and schemes of the development departments, open markets both at domestic and global scale, and other unlimited partners is to be provided through training, demonstration, literature, and other human resources development support including interfaces at different levels. The development of Information Communication Technology (ICT) and Telecommunication Network have paved the way for creation of information network, knowledge pool and services on new agricultural technology, products and marketing of produce, which must be intensively used. It will be appropriate to develop farmer-friendly information network to provide whole range of information leading to delivery of knowledge of new agricultural technology, products, procedures, and related services to enable them to take control of their farming environment in near future.

Although a variety of farmers' organizations including cooperatives, farmers' club/self-help groups, and farmers' companies have been promoted in the past, there is lack of sustainability of their existence and the purpose for which they were promoted. These farmers' organizations need to be looked as a kind of business federation for undertaking primary processing and marketing of local products and to facilitate much needed organizational support for effective implementation of quality control and standardization of farm products.

Growth of Agriculture both in terms of GDP and livelihood security with social equity has been ever challenging and more so in the present context of inadequate public sector investment and services, and pressure of globalization of agriculture leading to a greater demand for highly knowledge-intensive services. Investments in present Indian agriculture need to be rationalized and appropriate knowledge driven institutional reforms have to be brought in. Appropriate framework for technology development and dissemination would be very much needed for transforming Indian agriculture from the present approach of its sustenance as a way of life to a vibrant economic activity with a sense of pride for future generations.

Horticulture estates

The cultivation of fruits, vegetables, flowers, spices, medicinal and aromatic plants is now happening in a big way in several parts of the country. Being perishable commodities, horticultural crops need effective infrastructure support in the areas of production, processing, storage, transportation and marketing.

In villages adjoining large consumption centres (both for home and export markets), small farmers can be helped to organize Small Farmers' Horticulture Estates in the form of SHGs covering an area of 200 to 500 hectares. In such estates, specialized activities like seed production, tissue culture propagation, production of compost, vermiculture, bio fertilizers, bio pesticides and e-commerce can be promoted through technological and credit empowerment. Such estates will confer on farmers cultivating one to two hectares the power of scale both at the production and post-harvest phases of the horticultural enterprise.

Low cost green houses coupled with fertigation techniques can be promoted. In addition to high-tech horticulture, which can be undertaken by farm and home science graduals. The production of good quality, disease-free planting material is important in all clonally propagated species.

Agricultural competitiveness

Raising the agricultural competitiveness of farmers with smallholdings is a major challenge. Methods of conferring the power of scale to small farm families both at the production and post-harvest phases of farming are an urgent necessity. A basket of choices should be available to farmwomen and men cultivating 1 or 2 hectares or below to enhance their income earning capacity. Productivity improvement to increase the marketable surplus available to small farm families, assured and remunerative marketing opportunities and creating opportunities for landless agricultural labour families for skilled non-farm employment should be the bottom line of public policy. The basket of choices for enhancing productivity, profitability and sustainability could include the following:

- Formation of self-help groups of farm families to undertake group operations in areas like water harvesting and management, pest management and post-harvest technology. Some examples are: Small farmers' horticulture, cotton and poultry estates.

- Promotion of contract farming to ensure assured marketing outlets on the basis of a well defined Code of Conduct: the Code of Conduct for contract farming should include provision of support to small producers in the areas of technology and input supply and fair price for the produce.

- Revitalising and restructuring various government schemes like Agri-clinics, Agri-business centres, Rural Godowns, Small Farmers Agri-Business Consortium (SFAC), National Horticulture Board and the like, so as to make them farmer centric.

- Promoting the active involvement of Panchayat Raj institutions and local bodies to foster Water-shed/ Command Area Communities and making the watershed or the irrigation command area the point of convergence and integration of all relevant Technology Missions.

Supply chain management

The policy reforms of the 1990s more or less eliminated the bias against agriculture by lowering industrial tariffs and liberalizing exports of agricultural commodities. This change improved the relative incentives environment (measured as the ratio of agricultural prices to prices of manufactured goods) in favour of agriculture, providing a strong boost to private sector investments in agriculture.

India can harvest rich returns from trade liberalization, provided it also carried out large-scale reforms to streamline domestic markets and put in place the infrastructure and institutions to connect local markets with national and global markets. These reforms would involve removing all controls on the functioning of domestic markets, such as movement restrictions, stocking limits on private trade, levies on rice and sugar mills, controls on investments in large-scale agro processing and on foreign investments in retail chains, and bans on direct buying from farmers by processors.

India should also introduce new institutions such as futures trading that can reduce market risk and promote investments.

Further, to integrate the domestic markets with world markets smoothly and manage trade liberalization more effectively, India needs institutions that can closely monitor movements in world and domestic prices and take timely and appropriate actions to avoid major shocks.

Here, an institution like an agriculture tariff commission may be more useful than the existing Commission for Agricultural Costs and Prices.

The country's plantation sector employs five million people directly and is spread over in six important states; but it is not under the direct purview of either the Union

Commerce or the Agriculture Ministry. Hence, a new Department of Plantation with an integrated policy and focused strategies is the need of the hour.

Organisation failure was the biggest bottleneck for this labour-intensive sector. As this sector generates only \$1.5 billion out of the more than \$100-billion export proceeds, it remained neglected by the Commerce Ministry.

Need for re-plantation while a Special Purpose Fund for tea reclamation was estimated at Rs. 470 crore, rubber grown over 50,000 hectares would need re-plantation at a cost of Rs. 600 crore. For pepper, this would entail Rs.400 crore and for coffee, Rs. 600 crore over 90,000 hectares over five years.

Marketing remains the weakest link for several cash crops such as tea and coffee, even as the country contributes to 80 per cent of core exports and is the largest exporter of tea.

The threat of cheap imports and smuggling from Nepal was yet another problem. Against the total production of 70,000 tonnes of pepper, as much as 15,000 tonnes were dumped duty free from Sri Lanka, injuring domestic growers of pepper in Kerala.

A study was imperative to assess the global competitiveness of the plantation sector (tea, coffee and rubber) and to work out long term strategies for the development of this vital sector on which many small growers in the country depend for their livelihood.

As part of the WTO ongoing negotiations, India has been pressing for removal of tariff peaks and tariff escalations in developed countries, which affect exports from India, he added. APEDA, in particular, flagged the problem of tariff escalations, which refer to higher tariff imposed by developed countries on imports of value added products.

The share of processed foods as a percentage of India's total agricultural exports had increased from 20 per cent a couple of years ago to 36 per cent today, with exports having crossed Rs. 7,000 crore during the last financial year.

The value of agro-exports from India in absolute terms had increased phenomenally, having gone up to \$8 billion - an increase of 70 per cent in just five years from a level of \$5.6 billion 1999-2000.

The current record-high price is surely inducing more growers to get into natural rubber plantations. The Rubber Board estimates that at least 4,500-5000 hectares of new plantations would have come up during the current financial year to take the country's total plantation area to 5.81 lakh hectares.

With the US and EU refusing to budge too much on reducing their domestic agricultural subsidies while seeking greater market access in developing countries for their agricultural and industrial goods, it is unlikely the negotiations will get out of the stalemate unless someone blinks. The developing world, led by India and Brazil, are a much stronger force than in the past, making an easy compromise a distant reality. The coming months are crucial for the WTO to retain its credibility.

At the international level, there is no longer competition among firms, but among supply chain networks. The network in India is primitive and exploitative. The trick is to bring about an intensive collaboration among producers, processors, logistics providers, wholesalers and retailers to supply what the consumers in India and abroad want cost effectively. Horizontal collaboration among policymakers, researchers, extension agencies, tehnology companies and financial institutions add strength to the chain. The whole chain and not just production should be defined as agriculture.

The key message of supply chain successes is: Customer rank, quality, price, specification, timely delivery and relationships with suppliers as their priorities.

Conclusion

We must begin the process of imparting dynamism and optimism in the farm sector, as was done in the nineteen sixties. Accelerated agricultural progress based on the enhancement of productivity, sustainability and profitability through farming systems diversification, sustainable intensification, quality upgradation and value addition, is vital not only for food security and poverty eradication, but also for national sovereignty.

Jawaharlal Nehru's often-quoted remark made in 1948 "Everything else can wait, but not agriculture" is even more relevant today. Let us, therefore, wake up both to the fast spreading agrarian crisis and to the opportunities available for converting the crisis into an area of restructuring and strengthening the support systems for the over 110 million farming families in the country.

The prospects of Indian farmers in sustainable agriculture oriented towards market economy will then be bright.

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