

*Annexure 6*  
**National Research Programme on Plantation Development:  
A Background Note**

**The Context**

The plantation sector in India has been facing several challenges during the recent years. The sector has been losing out external markets and the domestic market is facing import competition. The erosion of international competitiveness on account of low productivity, inadequate processing and market infrastructure, and low level of value addition is posing a grave threat to the sector. Greater integration with the world market has also led to sharp decline and volatility in prices of many crops that in turn inhibited investment, as noted by the Taskforce on Plantation Sector. As a result the plantation sector, which generates massive employment especially for women labour and located largely in ecologically fragile regions, became economically and socially vulnerable. This has induced the Ministry of Commerce to undertake various measures including replanting on a large scale to help enhancing the competitiveness of plantation sector.

Such initiatives also need to be viewed against the economic, ecologic and social significance of this sector in the Indian context. It is estimated that the plantation sector accounts for about five percent of the net sown area, contributes to about 10 percent of the income from agriculture and accounts for about 13 percent of the agricultural exports. The estate sector alone provides about 2.5 million employments, mostly for women labour while the presence of small holders is increasing in most of the crops. True, from a national perspective these figures may not look very impressive. But as plantation sector is concentrated in few states in the country, from the point of view of these regional economies, they are a major source of livelihood for their population. Besides, crops like tea, coffee, cardamom and pepper are cultivated in ecologically fragile areas and the sustenance of plantation agriculture is important for the long-term development of such regions. What is more, in some of the states, plantation labour mainly consists of the socially less privileged segments like scheduled castes and Scheduled tribes. No wonder, the crisis in the plantation sector has accentuated the distress of people living in these

areas. This is reflected, among others, in the incidence of large number of suicides reported by farmers and agricultural workers in the districts like Wayanad in Kerala.

For evolving a long-term perspective for the plantation sector there is the need for a proper understanding of the multifarious issues that confront this sector, which are crop-specific, specific to this sector, and certain other issues having their national and international dimensions. Yet the current state of research for informed policy making is known to be grossly inadequate, while commercial agriculture in developed countries like the US receives policy input from professors at Ivy League universities. In this context with a view to promote policy-oriented research on all aspects of plantation sector, a one time grant of Rs 5 crores was announced for Centre for Development Studies (CDS) Trivandrum, in the Union Budget for 2008-09 at the instance of the MoS Commerce Shri Jairam Ramesh. The National Research Programme on Plantation Development is an outcome of this initiative.

### **Research on Plantation at CDS**

From its very beginning the Centre has been involved in research on plantation crops. A recent decline in the interest on issues relating to plantation among the scholars at CDS notwithstanding, there is hardly any plantation crop that did not attract the attention of researchers at the Centre. Studies in the seventies and early 1980s studies dealt with the potential of inter-cropping /mixed cropping in coconut gardens for maximization of farm incomes. They were followed by some systematic research on the re-plantation of coconut gardens, estimation of the incidence of the root-wilt disease in coconut and the crop loss, and analysis of price formation in coconut and coconut oil prices. Another study in this period dealt with the development of cashew cultivation in India. The research on plantation crops got further widened in coverage of issues and the number of crops, with the support extended by the National Bank for Agricultural and Rural Development (NABARD) in the early 1980s. Apart from coconut, other crops studied under this programme were Tea, Cardamom, Pepper and Coffee. Research on tea was on the historical process of development of the tea industry in South India conducted to understand not only the transition from foreign ownership to domestic ownership, but

also to assess the impact of the transfer on production, productivity, and market expansion. The research on cardamom involved analysis of the historical evolution of cardamom cultivation, evolution of land tenure, deforestation, organization of production, marketing and price formation in cardamom auctions. and promotional measures in cardamom cultivation. The research on pepper was also approximately on the same lines. Another crop on which a substantial research has been undertaken is rubber. Part of this research was on rubber- based industries and the rest related to the economies of small holdings, marketing and price formation of natural rubber.

A good part of CDS research involved working closely with Commodity Boards, Research Institutes and various Government Departments. Some of the current research on the topic includes demand studies on coconut and coconut oil, scope for product diversification in coconut, analysis of price behaviour of major plantation crops, and the impact of the crash in prices of crops like pepper, coffee, cardamom and tea on the livelihood of the agrarian population in the Western Ghat region. It is expected that the proposed research programme would provide the much needed data and the findings of the analysis to the Government of India and other stakeholder groups, necessary for guiding their strategic decision-making process in matters pertaining to the plantation development.

### **Vision of the Programme**

*The Programme envisages to help transforming the plantation sector of India to become internationally competitive and sustainable by undertaking research on all aspects at the regional, national and international levels; promoting policy advocacy at the regional and national level to influence the policy making and at the international level to have a bearing on the agenda of relevant multilateral organizations; facilitating the networking of all relevant stakeholders to exploit their synergies and promoting international cooperation for avoiding wasteful competition and facilitating knowledge sharing*

### **Objectives**

- **To undertake policy oriented research and building up of a database on all aspects of the plantation sector at the regional, national and international levels**

There are a large number of issues ranging from those relating to production, processing, marketing and trade to labour, environment and others.

➤ **Create a network of Government and Non-Government institutions and agencies engaged in plantation sector**

The Programme envisages to work in close interaction with different stakeholders in government like Commodity Boards, Research Institutions, Export Promotion Agencies, Regulatory Agencies and Non-Governmental/ Private Agencies like Planters' Associations NGOs (who are active in the Plantation economy) and Marketing and Exporting Agencies with a view to promote the exchange of ideas and collective action to achieve the declared mission of the Programme.

➤ **To generate interest on plantation sector among researchers and help building their capacity to enhance research in future.**

The importance of this sector in the national economy notwithstanding, there is only a limited number of researchers engaged in research on this sector. Hence, the Programme envisages attracting, especially young researchers, to this area by instituting fellowship at the M Phil and PhD and postdoctoral levels. Also attempt will be made to strengthen the research capacity in colleges, universities and research institutions to undertake studies on various socio-economic dimensions of the plantation sector. The main components of this programme will be the following.

In what follows we shall highlight, without any claim of being exhaustive, some of the issues that may be explored to help informed policy making.

❖ **Production and Processing**

This will mainly focus on the following aspects:

- (i) Analyzing the trends in area, production, and yield of plantation crops across regions and size groups of producers in the country;
- (ii) Examining the role of price and non-price factors in crop shifts and productivity changes including land tenure, labour use, labour market conditions and other relevant factors;

- (iii) Locating the constraints on production experienced by agricultural holdings (including the small and the marginal holdings) and the organized estate sector;
- (iv) Exploring the constraints and potential for inter-cropping/ mixed cropping including animal husbandry for diversification of income from plantation agriculture
- (v) In the context of various initiatives being undertaken by the state to rejuvenate the plantation sector like the replanting scheme, there is the need to undertake a concurrent evaluation of these initiatives and suggest new avenues of state intervention
- (vi) Given the growing importance of organic production and various constraints associated with it including the institutional arrangements for providing needed technology for production and certification for the products are yet another set of issues.
- (vii) To the extent that the post harvest operations help the sector to move up the value chain and generate employment, inquiries into ways and means of effective intervention in grading, packaging, standrising and other activities will be a rewarding exercise.
- (viii) In addition to post harvest operations, going by the experience of other countries, there appears the need for exploring plantation based tourism
- (ix) To the extent that initiatives involving diversification depends to a great extent on the exiting laws on land utilization, there appears to be the need for examining the amendments is laws to make the plantation sector more vibrant while without damaging environment.

❖ **Prices and Markets**

• *Market Structure, Marketing Efficiency, Price Formation and Price trends*

- (i) Various traditional issues like the analysis of the market structure and price formation, marketing efficiency and marketing margins continues to be important on account of their bearing on the profitability of cultivation.

(ii) In the context of increased instability inquiries need to be conducted to find out ways of ensuring stability in price

- *E-auctions, Commodity Derivatives and Futures Trading*

(iii) The use of IT in commodity marketing has led to e-auctions in crops like tea and cardamom. Similarly, in case of coffee e-choupal introduced at the instance of ITC has given greater access to the farmers on information pertaining prices in different markets along with various aspects of production.

(iv) Another set of issues related to the trends, patterns and instability in Commodity prices along with various issues relating to integration across different markets and their being on price realization

(v) There are also new set of issues relating to futures trading like its bearing on price stability needs to be explored as futures trading is increasingly being introduced in a number of commodities.

❖ **Exports and Commodity Problematic**

The recent developments tend to suggest that the primary producing countries in the South have not benefited from globalization. As UNCTAD rightly pointed out, the secular decline and instability in world commodity prices and resulting terms of trade losses have reduced the import capacity of many developing countries and contributed to increased poverty and indebtedness. This situation is further complicated by the emergence of increasingly concentrated market structures at the international level and stringent standards and requirements in developed country markets. Various studies in the framework of value chain have shown that the value retention by developing country producers of commodities is decreasing. Hence there is the need for giving a renewed impetus to the “commodity problematic” at the same time exploiting the new avenues opened

up by the renewed interest on south-south cooperation. In this context issues that needs exploration includes but not limited to;

- *Trends and Patterns in Exports, Export Competitiveness and Prices*

The determinants and patterns of exports have changed substantially over the recent past. Also there are widening differences between value and volumes of export. In many cases both the value and volumes of exports are maintained, but exports may be destined to stagnant markets. In other cases, though there is a strong supply side, exports are diverted away from highly sought after destinations such as the OECD to regional trading countries, which is the result of reduced tariffs and other barriers.

An equally important issue related to the behaviour of commodity price movements and the influence of international integration on price stability

- *Influence of WTO and Regional Trading Arrangements (RTAs)*

The implications of the WTO Agreement on Agriculture has been fairly well analyzed in case of food crops, particularly from the viewpoint of tariffication and the removal of QRs. However, such analysis need to be extended to plantation crops with due consideration to their specificities. In the case of plantation commodities, apart from issues relating to aggregate measures of support and tariffication, issues relating to market access and the implications of sanitary and phytosanitary measures on market access need detailed inquiries. Studies on such issues assume significance both in the context of the on going negotiations on the Agreement on Agriculture under WTO and regional trading arrangements such that the Programme could provide input for negotiations.

India's engagement with ASEAN countries and the Free Trade Agreement with Sri Lanka and Thailand have had pronounced impact on the trade pattern and fortunes of growers in India. The Free trade agreement with Sri Lanka is said to have had a dampening effect on the price of pepper in both countries and thereby

serious implications on the growers. Similarly, the impact of FTA with Thailand, and ways and means of addressing the concerns of plantation sector in the proposed India-ASEAN free trade agreement also warrant comprehensive studies.

- Trade facilitation issues

There are considerable overlapping issues between trade facilitation and those which come under the sanitary and phytosanitary measures (SPS). This is an area of contention for the players at the end of the supply chain. In the Indian context, there are more complex and prohibitive trade facilitation issues at the domestic level, than what the exports face abroad. This includes clumsy and complex documentation system, impeding interstate goods transport and so on.

On the other hand, there are issues to be cleared under the sanitary certification. Unless there is perfect coordination among these, coupled with the overall port efficiency, this is bound to impose costs which could have been avoided.

Another factor relates to the sharing of information. It is considered that most of the issues related to SPS and trade facilitation are due to 'information asymmetry'.

- ❖ **Environment, Labour and other Social Issues**

As already noted, the plantation sector in the country is located mostly in the ecologically fragile locations. Studies have indicated that response of farmers to cultivation becoming less profitable in the form of excessive felling of shade trees could have adverse impact on the ecology and long-term sustainability of the plantation sector. Processing of some of crops is known to contribute towards environmental pollution. At the same time, the decline in the yield of certain crops despite excessive use of chemical fertilizers and incidence new diseases cannot be de-linked from ecological degradation. Also various issues pertaining to climate change and global warming and enquiries into the potential of plantation sector to arrest many adverse effects will give rich dividends.

The importance of plantation sector to the national economy today is not so much on account of its export earning but on account of its contribution towards employment generation mostly for the women labour. Yet various issues relating to employment, wages, working conditions and other issues seems to have not received the attention of researchers that it deserves. For evolving a long-term perspective for the plantation sector, not only a proper understanding of the crop-specific problems but their implications for the livelihoods of people who depend on this sector is also essential. The current state of knowledge is far from desirable for supporting any major policy intervention in the sector.

Being located in geographically isolated regions, their health status with a gender perspective and other demographic factors also need to be subjected to detailed inquiry. More over, the increased participation of some of the socially disadvantageous sections of the society like SCs and STs in plantation sector makes the inquiry into these issues all the more policy relevant.

#### ❖ **Issues relating to Technology and Innovation System**

Traditionally issues relating to commodities have been considered quintessentially as a trade issue. However, it is increasingly being recognized that any discussion on the preset state of plantation sector cannot be de-linked from state of research pertaining to the plantation sector in general and that of specific crop in particular. True, substantial investment has been made over the years at the instance of commodity boards, agricultural universities, ICAR and the private sector to evolve a vibrant innovation system in case of most of the crops. The nature of innovation system as well as their outcomes was found varying from one crop to another. In this context, apart from an exploration of the innovation system in the plantation sector in general to locate the factors that inhibit the system to proactively respond to crisis situations along with its inclusiveness, studies on the innovation systems across different crops might help drawing useful lessons.

### ❖ **South-South Cooperation and Knowledge sharing**

To the extent that plantation sector is an important source of output, employment and export earning for many developing countries, issues related to plantation sector assumes importance in most of the bilateral and multilateral cooperation agreements like ASEAN, IBSA and others. It is also found that these countries vary significantly in terms of their capability set with respect to commodity production and value addition. Hence there is immense scope for sharing technology and best practices in the spirit of south-south cooperation and collective actions to avoid wasteful competition that is detrimental to all concerned.

### ❖ **A Comparative Perspective**

In each of the plantation crops, India competes with a few other developing countries in the world market. With the unfolding of the WTO regime, the plantation sectors of these countries are getting integrated. Therefore, formulation of domestic strategies for India could not be designed meaningfully independent of the nature of changes taking places in the plantation sector of these countries. It may therefore be insightful to make inter-country comparisons for example, with Guatemala in the case of Cardamom, with Indonesia, Brazil and Vietnam in the case of Pepper, with Malaysia in case of Rubber, with Vietnam and Brazil in the case of Coffee, with Philippines in the case of Coconut, with Vietnam in the case of Cashew nut and with Sri Lanka and Kenya in the case of Tea.

### **The Deliverables**

- At least six reports covering selected aspects of important plantation crops. Besides, a dozen of policy briefs, and an equal number of research papers in scientific journals will be submitted for publication.
- A consolidated database on the plantation sector as well as for select crops will be made available.
- Opportunities will be given for about half a dozen young scholars through M Phil/ Ph D/Postdoctoral fellowship to undertake research on various dimensions of plantation crops.
- At least two training programmes will be conducted for 30 participants drawn from various stakeholder groups, of one week duration

- Each year 5 to 10 researchers from outside CDS will be incorporated into the programme.

### **Programme Implementation Strategy**

Evidently, the issues that need to receive the attention of the Programme are too many. Hence there is the need for prioritizing the work for the initial two years and the round table and workshops are intended to provide input for accomplishing this objective.

No Programme of this type can afford to have in-house all the needed human resources. It is envisaged that the Programme will have three faculty members - one each at the level of professor, Associate professor and Assistant Professor. The Programme shall have provision to attract resource persons from outside for short duration. The Programme also needs to have provision for contracting out research to other institutions and individuals based on clearly laid out norms within the limits set by the availability of resources.

The programme will be headed by a faculty at the level of Professor at CDS and will work under the over all guidance of the National Advisory Council of the programme.