GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD

FOURTEENTH FIVE-YEAR PLAN
(2022-2027)

REPORT OF WORKING GROUP ON PLANTATION ECONOMY

INDUSTRY AND INFRASTRUCTURE DIVISION
MARCH 2022

FOREWORD

Kerala is the only State in India to formulate and implement Five-Year Plans. The Government of Kerala believes that the planning process is important for promoting economic growth and ensuring social justice in the State. A significant feature of the process of formulation of Plans in the State is its participatory inclusive nature.

In September 2021, the State Planning Board initiated a programme of consultation and discussing for the formulation of the 14th Five-Year Plan. The State Planning Board constituted 44 Working Groups, with more than 1200 members in order to gain expert opinion on a range of soci-economic issues pertinent to this Plan. The members of the Working Groups represented a wide spectrum of society and include scholars, administrators, social and political activists and other experts. Members of the Working Groups contributed their specialized knowledge in different sectors, best practices in the fields, issues of concern, and future strategies required in these sectors. The Report of each Working Group reflects the collective views of the members of the Group and the content of each Report will contribute to the formulation of the 14th Five-Year Plan. Each Report has been finalised after several rounds of discussions and consultations held between September and December 2021.

This document is the Report of the Working Group on Plantation Economy. The Co-Chairpersons of Working Group were Dr Sunil Mani and Dr K N Raghavan IRS. Sri V Namasivayam, Member of the State Planning Board co-ordinated the activities of the Working Group. Er Joy NR, Chief, Industry & Infrastructure Division was the Convenor of the Working Group and Dr Arun Shyamnath, Assistant Director, I&I Division was Co-Convenor. The terms of reference of Working Group and its members are in Annexures of the Report.

Member Secretary

PREFACE

This is the final draft of the report of the Working Group on Plantation Economy. The report is based essentially on three meetings of the Working Group on October 4, 11 and 22, supplemented with notes submitted to it by representatives of plantation owners, the trade union and by the Chief Inspector of Plantations. The report is structured into four sections. Section 1 maps out the place of plantations in Kerala's economy and teases out some of the current and long-standing problems faced by the sector. Section 2, on the contrary, identifies the key areas where the state government can intervene through policy measures to improve the situation. This is discussed crop-wise. Section 3 discusses a number of cross-cutting issues like issues related to land, labour, environmental issues and problems of abandoned plantations. These are horizontal issues that affect all the four plantation crops. The fourth and final section sums up the main findings and identifies a set of recommendations that the government may consider while it is formulating its plantation policy under the auspices of the newly created Plantation Directorate.

The Co-Chairs would like to thank Mr. Sanjith R Nair, member of the Working Group, for his tremendous help in drafting the report. We have endeavoured to accommodate the various views that were expressed both orally and in a verbalized form at the meetings of the committee. It is hoped that the issues raised in this report will be useful for planning for state government's intervention in this sector

Dr Sunil Mani Co- Chairperson	Dr K N Raghavan Co- Chairperson

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LIST OF ABBREVIATIONS

ASCI	Agricultural Skill Council of India
ASEAN	Association of South-East Asian Nations
CCRI	Central Coffee Research Institute
CHC	Custom Hiring Centres
CWRDM	Centre for Water Resources Development and Management
EOU	Export Oriented Units
EFL	Ecologically Fragile Lands
ESA	Ecologically Sensitive Areas
FOFO-ICH	Franchise Operated Franchise Owned - India Coffee House
FPC	Farmer Produce Company
FPO	Farmer Producer Organisation
ICRI	Institute of Clinical Research India
IISR	Indian Institute of Spices Research
INDC	Intended Nationally Determined Contributions
LSGI	Local Self-Government Institutions
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NR	Natural Rubber
QR	Quantitative Restrictions
RCEP	Regional Comprehensive Economic Partnership
RPS	Rubber Producer Societies
RPIS	Rubber Production Incentive Scheme
RRII	Rubber Research Institute of India
RSDC	Rubber Skill Development Council
SEZ	Special Economic Zone
SION	Standard Input Output Norm
TSS	Total Suspended Solids
UPASI	United Planters' Association of Southern India
WTO	World Trade Organisation

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EXECUTIVE SUMMARY

Though plantations are agriculture-based activity, what essentially differentiates the four crops under reference from ordinary agriculture is that they have been exempted from land ceiling in all the States in the country where they are grown. This has enabled the organized form of cultivation of these crops, alongside small growers. From an enabling provision in the Indian Constitution, all the four crops have been declared as 'industry' by the Union Government which has taken over the control of cultivation, processing and marketing of these crops under separate statutes viz. Coffee Act, 1942; Rubber Act, 1947; Tea Act, 1953 and the Spices Board Act, 1986 [erst while Cardamom Act 1965].

Plantations have got several unique features, in contrast to ordinary agriculture. The plantation crops have long gestation periods ranging from 3 to 8 years before the economic yield starts coming in. Further, once the gestation period is over, production takes places for decades and even up to 100 years, as in the case of tea. Unlike the short- duration agricultural crops like paddy, wheat, sugarcane etc. where the farmers have the option to periodically shift to other alternative crops in line with market changes, the plantations have to necessarily continue with the same crop for a longer period due to huge investment involved and also the State level regulations in converting to other crops. Hence, decisions on investment and planning in plantation crops are often comparable to those in the manufacturing/industrial sector and only remotely to those in agriculture. Plantations are large scale capital intensive commercial enterprises employing huge labour force and being a cash crop, they rely on the exports and domestic market as their source of income. Plantation assumes special significance not only as a source of foreign exchange but also due to its contribution towards the employment of millions of plantation labourers, particularly women and also its contribution to carbon sequestration and ecological balance.

Plantation crops such as tea, coffee, rubber and cardamom occupy about 29 per cent of states gross cropped area. More than 10 lakh growers are engaged in the cultivation of plantation crops. The State accounts for 37.2% of total plantation area, majorly grown under rainfed conditions in the country and 29.4% in terms of total output. The plantation industry is one of the largest employers in the State providing permanent employment to 4.18 lakh labour. The total value of the plantation crops produced in Kerala is about Rs 13,542 crores, including foreign exchange earnings of Rs. 2,717 crores [~23.27% of total Indian export] by way of export.

Major challenges in the Plantation Sector in the State include fluctuating or declining price realization, declining production and productivity, and susceptibilities in the areas of R&D, processing, marketing, and trade. This is threatening the livelihood of millions of growers, labourers and others engaged in this sector and the very sustenance of this industry itself. Further, the development of the sector has been left to the free play of market forces ever since the sector got integrated with the world market under globalization. The trade centric policy agenda initiated by the Government of India since 1991 and more specifically removal of Quantitative Restrictions [QR] for plantation crops since April 2001 has impacted the economic viability of the sector given the structural infirmities and denial of level playing field. The perennial nature of the four plantation crops with higher initial investment, long gestation period and longer economic life imparts certain inherent limitations in responding to vagaries of markets and weather conditions compared to annual crops.

Recommendations

It is essential to increase the share of producers in the value chain, through definite financial and policy support to the sector. There is a need for generation of a reliable database based on a census of the four plantation crops in the State in collaboration with the concerned Government of India agencies. The declining role of the Central Government as evident from the lower outlay to the sector clearly suggest a more active role of the State Government in complementing and supplementing the development of the plantation sector. The focus should be to bring modern science and technology to improve crop yields and other necessary infrastructure keeping in view the potential impacts of climate change.

Revenue generation from one unit of land of plantation needs to be increased, without altering the present fundamental character of the plantations. Agroforestry operations should be permitted in plantations in Kerala in a sustainable manner. Plantation Tourism with proper environmental guidelines should be encouraged through single window clearance to attract investments in the sector. The areas assigned for the new crops must have strict guidance in terms of biodiversity management, with emphasis on the principles of regenerative agriculture, complete with converting lands of high gradient and on the vicinity of water ways to agroforestry. Necessary amendments to the Land Utilization Order 1967 be introduced so that the conversion from one plantation crop to another plantation crop/crop is allowed without restrictions. The renewal of lease agreements in time bound manner should be ensured. For this, the department of forests should take action on the basis of the recommendations.

To boost the life standards of the plantation workers, the plantation sector should be included in the various schemes of the Local Self-Government Institutions (LSGIs). Housing units for plantation labor must be re-designed with time bound action plan. For the retired landless plantation workers, the Government should construct houses outside the plantations for their settlement. The Inter-Ministerial Committee recommendation of sharing the social costs between the Central/ State Government and the plantation employer at a specified ratio needs to be pursued by the State Government. Revival measures for re-opening the abandoned gardens be initiated by the State Government after carrying out detailed study and also explore emulating successful models tried out elsewhere.

The State Government may mandate Kerala State Forest Research Institute to conduct Kerala plantation specific research to study the ecosystem services provided by the Plantation sector and the impact of the climate change on the same. Suitable support schemes be conceived to put up water harvest structures by plantation managements inside their properties. Department of Agriculture/Agricultural Universities of Government of Kerala may extend their services to plantation sector at concessional fees to help the growers to adopt judicious management of fertilizers across the State. Implement a revenue insurance scheme for plantations to protect them from the twin risks of yield loss due to adverse weather parameters, pest attach etc., and income loss caused by fall in domestic prices. Given the shortage of labour, farm Mechanization should be given thrust to bring about mechanization at the farm level in the plantation sector. For the benefit of small growers, establishment of Custom Hiring Centres (CHCs) concept can be tried out. Explore the plausibility of the replicating the MNREGA scheme in other plantation crops as well factoring in the learnings from its implementation in NR sector. The State government must pursue with Union Government on the need for establishing voluntary carbon markets, which will pave way for enhanced replanting area, greener and cleaner environment and supplement growers' income thereby supporting the development of plantation sector. There should be a Support Price Mechanism extended by the Government for plantation commodities selling below cost of production, similar to the successful Rubber Production Incentive Scheme.

Natural Rubber - Towards augmenting production, the unique scheme of tapping untapped areas with an intention that no rubber area goes untapped should be promoted. An incentive scheme to nudge the NR growers to adopt rain-guarding scheme should be framed as it will benefit uninterrupted supply of NR during the rainy season. The scheme of the Rubber Board to promote intercropping of medicinal plants in rubber plantations with the support of Ayurveda companies should be scaled up with assistance to growers through State Medicinal Plant Board, depending on the success of the pilot scheme. New Genetically modified plants developed by the Rubber Board could be effectively used in Kerala and needs to be propagated for which sanction from the State is required. There should be a clear state policy in this regard. Small growers - RSS production model need to be safe guarded by putting a cap on the quantity of low priced TSR imported. The State Government should step in by setting up processing and other support facilities for small and marginal growers which would aid in avoiding cumbersome process of sheet making in marginal and small holdings. Importantly, the Government's help in facilitating the setting up of Group processing units would help in making the quality and consistent product and in getting a better share in the value addition. There should be a dedicated fund for modernization of Rubber factories in processing and product manufacture, such as a] support for replacement of centrifuging plants, b] rollers and drying machinery, c] solar powered smoke houses and d] effluent based bio-gas plants to generate fuel for drying in rubber factories. For identifying new opportunities and innovation of NR in other applications and industries, there is a need to strengthen the R&D department of the Rubber Board by collaborating with institutes of international repute on these areas.

Coffee - To improve the production and productivity of coffee the schemes implemented for horticultural crops viz. micro irrigation programme, support for mechanization, quality improvement, support for bio fertilizer, value addition etc., by the Department of Horticulture, Government of Kerala be extended to the Coffee plantations. Government should consider incentives for establishment of instant coffee manufacturing unit in the State. This will ensure a remunerative price to Coffee and create employment for the youths.

Spices - Towards facilitating exportable surplus of spices crops such as Pepper, Cochin Ginger, Alleppey Finger Turmeric, Nutmeg, the government intervention is required to include implementation of pepper nursery, replanting irrigation programmes in mission mode, promoting area expansion as intercrops viz., Alleppey Finger Turmeric, Cochin Ginger in young rubber plantations and Nutmeg in coconut. A Mission of Spice development is required, which should include, setting of better Processing facilities; GAP/Organic Certification and sustainable production. Further, key areas of intervention include support for FPOs/Sanitary and phytosanitary measures for value addition, Brand/ GI promotion. Further, establishment of State-owned Certification Agency, Promoting IPM / IDM /INM in spices is required

Tea - Since around 80 per cent of tea bushes in Kerala are in the category of above 50 years, replanting has to be seen in a broader perspective for enhancing field productivity. There should scheme for financial relief to the tea plantations affected by frost in the tea growing regions of Idukki. Kerala Government should take up with Central Government for Special Welfare scheme for tea worker in the State. As orthodox teas are cost intensive, there is a need for financial support, as otherwise it is difficult to enthuse producers to change over. The scheme to augment orthodox production should be complemented by State Government in addition to Tea Board by way of additional funding, as is done in Assam.

Marketing & Promotion - Formation of Farmer Producer Organisations (FPOs) should be promoted. The cluster projects under the industry department can be extended to other plantation crops to produce value-added products. Explore the potential of Diaspora Marketing strategy by creating a Kerala Brand for plantation commodities. Promote Natural Rubber [NR] bituminization considering the advantages of using rubber modified bitumen in the bituminized roads for the future. To attract more tourists, a coffee museum in Wayanad district can be established depicting the birth of coffee plantations in India (Kerala in particular), the various aspects of coffee cultivation and its management in Indian coffee plantations with audio video visual aids. Government of Kerala may device a scheme to provide partial seed money especially to women, Schedule Tribe and Schedule Caste youth to establish FOFO-ICH model Coffee Houses in semi urban/rural areas by training unemployed educated rural youths. Kerala Government should also look at putting up a modern warehousing and value addition packaging unit similar to the model at Dubai Tea Trading Centre in Jebel Ali. This facility could be in a Special Economic Zone in Kochi. There is a need to increase the per-capita consumption of generic tea. A campaign should be put in place for promotion of tea.

Trade aspects - The need for more export centric clusters for plantation commodities in plantation growing districts should be taken up and there is a need for new cluster for tea in Ernakulam district and Coffee in Wayanad district. The State Government should bring to the attention of the Union Government including through the forum of "cooperative federalism" the critical importance of State consultation before any further changes to import policy especially of natural rubber. State Government can take up the growers' concern on surge in imports, by approaching Directorate General for Trade Remedies for safeguard measures by levying safeguard duty at 70 % to; a] to protect the livelihood of small producers and b] to protect National Interest of the country by maintaining its natural Rubber Production capacity Intact. Measures to be taken by the State Government to impress upon the Union to reclassify NR as an agricultural produce under World Trade Organisation (WTO) and the permissible import duty be re- looked, especially since some of the competing NR producing countries have better insulated NR in their country by fixing higher bound rates. Need for periodic revision to SIO Norms for NR in tune with changing technologies should be flagged with the Centre so as to ensure that imported NR with zero per cent import duty does not find its way into domestic market. In the case of spices prohibit 100% Export Oriented Units (EOUs) and units in Special Economic Zones (SEZ) from selling black pepper in the domestic market and restricting pepper imports through a designated port

SECTION 1
AN OVERVIEW OF PLANTATION SECTOR IN KERALA

1.1 Kerala the 'God's own country', is also 'The land of Plantations'. The agro climatic conditions in Kerala with plains, undulated slopes and hills with plentiful of rainfall and humid climate make it very conducive to grow any agricultural produce in the State. In fact, it is difficult to name an agricultural crop including plantation crops and spices that is not grown or cannot be cultivated in the State.

1.2 Tea, Coffee, Natural Rubber and Cardamom are generally considered as plantation crops. Though plantations are agriculture-based activity, what essentially differentiates the four crops under reference from ordinary agriculture is that they have been exempted from land ceiling in all the States in the country where they are grown. This has enabled the organized form of cultivation of these crops, alongside small growers. From an enabling provision in the Indian Constitution, all the four crops have been declared as 'industry' by the Union Government which has taken over the control of cultivation, processing and marketing of these crops under separate statutes viz. Coffee Act, 1942; Rubber Act, 1947; Tea Act, 1953 and the Spices Board Act, 1986 [erst while Cardamom Act 1965].

1.3 Plantations have got several unique features, in contrast to ordinary agriculture. The plantation crops have long gestation periods ranging from 3 to 8 years before the economic yield starts coming in. Further, once the gestation period is over, production takes places for decades and even up to 100 years, as in the case of tea. Unlike the short- duration agricultural crops like paddy, wheat, sugarcane etc. where the farmers have the option to periodically shift to other alternative crops in line with market changes, the plantations have to necessarily continue with the same crop for a longer period due to huge investment involved and also the State level regulatory in converting to other crops. Hence, decisions on investment and planning in plantation crops are often comparable to those in the manufacturing/industrial sector and only remotely to those in agriculture. Plantations are large scale capital intensive commercial enterprises employing huge labour force and being a cash crop, they rely on the exports and domestic market as their source of income. Plantation assumes special significance not only as a source of foreign exchange but also due to its contribution towards the employment of millions of plantation labourers, particularly women and also its contribution to carbon sequestration and ecological balance.

1.4 Kerala is traditionally considered as "plantation enclave" of India. It is true to a great extent as the State's 29 per cent of the gross cropped area is under plantation crops such as tea, coffee, rubber and cardamom.

1.5 Plantation plays an important role in the economy of Kerala. All plantation crops namely tea, rubber, coffee, cardamom and pepper have significant presence in the State. Above 10 lakh growers are engaged in the cultivation of plantation crops. The State accounts for 37.2% of total plantation area, majorly grown under rainfed conditions in the country and 29.4% in terms of total output. The plantation industry is one of the largest employers in the State providing permanent employment to 4.18 lakh labour. The total value of the plantation crops produced in Kerala is about Rs 13,542 crores, including foreign exchange earnings of Rs. 2,717 crores [~23.27% of total Indian export] by way of export. From the national perspective these figures may not look immensely impressive, but from the point of view of regional rural economy wherein the plantain sector is concentrated, it is a major source of livelihood for their population. To quote Dr.M.S. Swaminathan "Kerala is truly the Plantation State of India".

Table 1.1: Plantation Profile - Kerala - 2020/21

Sl.No.		Tea	Rubber	Coffee	Cardamom	Total
1	No. of Growers/Estates	8,590	8,84,835	77,861	39,400	10,10,686
	% to South India	15.76	88.33	44.31	72.33	78.69
	% to All India	4.06	67.01	20.51	72.33	51.13
2	Area (Hectare)	35,871	5,90,195	84,976	39,143	7,50,185
	% to South India	35.54	87.36	24.60	56.57	62.98
	% to All India	5.64	66.02	20.32	56.57	37.18
3	Production (Tonnes)	66,850	5,35,594	69,100	20,570	6,92,114
	% to South India	28.79	89.40	21.43	91.34	59.84
	% to All India	5.21	74.91	20.69	91.34	29.39
4	Yield (Kgs./Hectare)	1,864	1564	813	526	-
	% to South India	81.01	101.75	87.04	161.85	-
	% to All India	92.46	106.75	101.75	161.85	-
5	Value of Crop (Rs. Crores)	1,187	7,430	1,737	3,188	13,542
	% to South India	29.99	89.40	20.00	91.32	53.97
	% to All India	4.31	77.28	19.19	91.32	26.06
6	Labour Employed (Lakhs)	0.41	3.04	0.44	0.29	4.18
	% to South India	44.09	87.61	7.46	55.77	38.63
	% to All India	3.62	67.41	6.67	56.86	18.22

Note: Value figures are an estimate based on the prices at the primary marketing stage.
Source: Compiled by United Planters' Association of Southern India (UPASI)

1.6 Natural Rubber [NR] is the most important plantation crop in the State given the area under the crop and also the number of growers involved. NR is predominantly a small grower-oriented crop accounting for 99% of the holdings out of the total 8.85 lakh growers, who account for 91.4% of the area and production respectively. In Kerala, Natural Rubber [NR] occupies the second largest area next to Coconut with 21.3 per cent of the gross cropped area [Kerala Economic Review 2020]. The area under rubber is estimated at 5.90 lakh hectares which is approximately 66% of the total NR area in the country and the production during 2020-21 is estimated at 5.35 lakh tonnes, which is around 75% of the country's production [See Annexure 1.1]. Among plantation crops, rubber has recorded the fastest growth both in area and production, both in Kerala and All-India. In yield levels, also Kerala continues to retain its top slot with 1534 kg/ha, compared to other states like Tamil Nadu [1500 kg/ha], Tripura [1277 kg/ha], Karnataka [1275 kg/ha] and Assam -1153 kg/ha]. The distinctive features of the sector, in Kerala, includes a near monopoly position in India's NR production during the past one century, progressive responses of a highly receptive growing community to research, development and extension initiatives, while the non-traditional areas have constraints like weather pattern, cold climate, wind etc which restrict their productivity.

1.7 India is the fifth largest producer of NR in the world. The global NR production during 2020 recorded a decline by 7.5 lakh tonnes and was estimated at 129.45 lakh tonnes. The pandemic disruptions across the world had disturbed the tapping operations that led to all major producing origins reporting lower crop, except Vietnam. Indian production of NR was estimated at 7.15 lakh tonnes for the period 2020/21. The subdued Indian production was on account of growers abandoning tapping operations due to low price realization vis-a-vis cost of production and it was the case of untapped production rather than lack of production potential. Many steps are being taken by Rubber Board to bring the untapped rubber area into tapping so that production can be augmented to its potential. The average price realization of RSS IV during 2020 was Rs.135.16 per kg.

1.8 Coffee is the second largest plantation crop in the State with around 0.85 lakh hectares, which accounts for 20.32% of country's area under coffee with production of around 0.69 lakh tonnes, i.e.20.69% of India's share in production [See Annexure 1.1]. There are about 0.79 lakh coffee growers, of which around 99% are small growers. Kerala is second largest producer of Coffee, after Karnataka, and is grown in most of the districts, but the commercial cultivation is confined to Wayanad, Idukki and Palakkad Districts. The main type of Coffee grown is Robusta. Productivity is often a concern in coffee sector as the yield levels are very low at around 813 kg/ha compared to more than 2000 kg/ha in Vietnam and 1037kg/ha in Karnataka. What makes coffee sector different from other plantation crops is the high export intensity of coffee with export of more than 75% of its production.

1.9 Global coffee production for the coffee year 2020-21, is estimated at 101.76 lakh tonne. India is the seventh largest producer of coffee with a share of around 3.4% during 2020- 21. Domestic coffee production during 2020-21 was estimated at 3.34 lakh tonnes, while 2021-22 coffee crop (Post Blossom estimates) was estimated at 3.69 lakh tonnes representing an overall increase in production by 0.35 lakh tonnes. Both Arabica and Robusta production are estimated to be higher by 0.09 lakh tonnes and 0.26 lakh tonnes respectively compared to the previous year.

1.10 Cardamom (Small) is essentially a small grower crop. Majority of the 39,400 holdings is small and is exclusively grown in South India. A survey undertaken sometime back by the Spices Board indicates a decline in the area under cardamom over the years. The present area is estimated at 69,190 hectares. Kerala accounts for around 56.6% of area and 91.3% of the production [See Annexure1.1]. Higher production of cardamom in Kerala during 2020-21 has resulted in higher value of the crop estimated at Rs. 3,188 crores.

1.11 Cardamom production is highly sensitive to climatic conditions as the cardamom plant requires intermittent spells of rains and good sunshine during the growth stage. Advance estimate of Spices Board projects cardamom production in India during 2020-21 at 0.23 lakh tonnes compared to 0.11 thousand tonnes in 2019-20, which is more than double the production reported the previous year [See Annexure1.1]. The higher crop prospects had a telling effect on the prices, which reported a steep decline of prices from Rs.2,908.5 per kg to Rs.1487.77 per kg, a decline of Rs.1,420.73 per kg during the season 2020-21 [August-July] compared to the corresponding period of last year.

1.12 Tea is one of the significant plantation crops in the country in terms of production and value realization. Total Indian production was estimated at 12.58 lakh tonnes during 2020, lower by 1.33 lakh tonnes due to pandemic induced lock-down measures [Annexure 1.1]. The decline in domestic production was primarily driven by the vertical decline in the crop from North India, while South Indian production was more or less same and was estimated at 2.22 lakh tonne, which is around 18% of the country's production. Kerala's share in tea crop is relatively less significant compared to other plantation crops, given the exponential growth in area and production in North India. Kerala accounts for 0.67 lakh tonne of production which is approximately 5.21% of India's production with an area under tea of 0.36 lakh hectares, which is 5.64% of the total area under tea in India. The yield figure at 1,758 kg/ha is low, but given the age of tea bushes being predominantly above 75 years, the relative yield levels tend to suggest that tea industry in the State embraces better agricultural practices that could certain extent defy the structural infirmity viz., the old age of bushes.

1.13 Replanting is more a commercial decision than an agronomic decision and losing the current income to gain a futuristic income can only be sustained if business is economically healthy. That be as it may, there is immense scope to scale new heights on yield levels have there been proper replanting with adequate incentive structure in place.

1.14 The world tea production during 2020 was estimated at 62.69 lakh tonnes, an increase of 10.78 lakh tonnes, suggesting that production is growing at a very expansionary phase. World tea production after crossing 50.0 lakh tonnes milestone in 2013, added another one billion kg within a span of 5 years, suggesting that there is an excess supply of tea in the world market. China nearly contributed half the world production [around 47.6%] and India remains at a distant second with a share of 20.1%. The growth in production in China, Kenya, Vietnam, Indonesia, Sri Lanka and in India were aided by the increase in area under tea, usage of improved planting materials, employing advanced technology and adopting integrated package of practices for tea cultivation. For instance in India, area under tea had increased from 4.38 lakh ha in 2000-01 to 6.36 lakh ha in 2020-21. The growth in area was predominantly in the small grower segment, as there was no scope for expansion of area under large grower sector.

SECTION 2
COMMODITY SPECIFIC CHALLENGES IN KERALA PLANTATION SECTOR

2.1 The major challenge in the Plantation Sector in the State is the fluctuating or declining price realization of all crops coupled with declining production and productivity. This is threatening the livelihood of millions of growers, labourers and others engaged in this sector and the very sustenance of this industry itself. Further, the susceptibilities in the areas of R&D, processing, marketing and trade had further compounded the gravity of the crisis. The development of the sector by now has been left to the free play of market forces ever since the sector got integrated with the world market under globalization. There is an immense need that the structural issues plaguing the plantation sector in the State are addressed holistically, so that a revival of this sector can be scripted. The holistic development of plantation industry be crafted by fine balancing the economic viability of the business along with social and economic security net of the workmen/the growers, and climate change mitigation management and improving biodiversity.

2.2 The essential prerequisites for the revival of Kerala's plantation sector are identification of the basic issues and suggest a road map from a long-term policy perspective. The perennial nature of the four plantation crops with higher initial investment, gestation period and longer economic life imparts certain inherent limitations in responding to vagaries of markets and weather conditions compared to annual crops. Historical experience in the sustenance of plantation crops revealed the crucial role of stability in farm incomes prior to liberalization, due to price stabilization schemes at both national and international levels. However, the trade centric policy agenda initiated by the Government of India since 1991 and more specifically removal of Quantitative Restrictions [QR] for plantation crops since April 2001 has impacted the economic viability of the sector given the structural infirmities and denial of level playing field.

This section identifies certain key areas where the state government can intervene through policy measures to improve the situation. This is discussed crop-wise.

General

2.3 **Allocation of Funds to Commodity Boards -** Considerable reduction was made in allocation of funds to the Commodity Boards in the Union Budgets [Table 2.1]. This has affected the plantation sector adversely as the Boards were not in a position to disburse adequate funds to growers for various developmental schemes. As mentioned, this necessitates more active role of the State Government in complementing and supplementing the developmental schemes for plantation sector

Table 2.1: Allocation of fund to Commodity Boards (Rs. in Crores)

Commodity Boards	Actual 2019-20	Revised 2020-21	Budget 2021-22
Tea Board	175.96	175.00	375.00*
Coffee Board	210.73	180.00	180.00
Rubber Board	211.20	187.69	190.00
Spices Board	105.00	100.00	100.00

Note: * includes Rs.200 crores for welfare scheme in North-East
Source: Budget Documents

Natural Rubber

2.4 **Tapping Untapped Area** - The NR production in the year 2020-21 was estimated at 7.15 lakh tonnes, while the production potential of NR is estimated to be around 9.50 lakh tonnes, [the peak NR production was reported during the year 2012-13 at 9.14 lakh tonnes]. This suggest that there is a tremendous scope for augmenting production. As per a preliminary study by the Rubber Board, around 30% of the total tappable areas are left untapped owing to multiple reasons and disconcertingly 80% of it is in Kerala.

2.5 Towards augmenting production, Rubber Board had conceived a unique scheme of tapping untapped areas with an intention that no rubber area goes untapped. This is being implemented using the tappers from the Tapper Banks and selling the product through Rubber Producer Societies [RPS] and Companies promoted by the Board. Adoption of farms are done through RPS and Companies, which would involve maintenance of farms, removal of weeds, spraying of pesticides, besides provisions for rain-guarding, tapping of trees and producing sheet rubber from latex. This scheme has multi-benefits as it provides a] employment to tappers; b] increasing production and import substitution and c] benefit to the NR growers/owners by way of income generation after deducting the operational expenses. This scheme can be implemented through the Plantation Directorate with the support of Local Self Governments [LSGs]. While framing the scheme, the salient features of successful scheme implemented in Kerala through LSGs viz., the “Total Paddy Mechanization Programme” through Food Security Army” be dovetailed.

2.6 **Rain Guarding of Rubber Trees** - As per Rubber Board, during rainy season, tapping can be carried out if rain guards are fixed above the tapping cut, which can prevent loss of tapping days and yield due to rain. Importantly, regular tapping can be ensured by rain- guarding under any given tapping frequency. Polythene skirt and tapping shade are the common types of rain guard. Materials required to rain guard 300 trees (average size) following polythene skirt method are: a] LDPE virgin polythene b] Bituminous rain guard compound; c] Cora cloth and d] Staple pins. An incentive scheme to nudge the NR growers to adopt rain-guarding scheme will benefit uninterrupted supply of NR during the rainy season.

2.7 **Replanting** is a huge cost to the grower. It is estimated that an amount of more than Rs.5 lakhs is required to replant a hectare of Rubber, sometimes involving huge capital outlays for crop protection too. The replanting subsidy being provided to growers is very meagre at Rs.25,000/ha and even this is experiencing delays due to the financial condition of the Board.

2.8 **Intercropping with Medicinal Plants** - Towards augmenting the income per unit area, Rubber Board had formulated a scheme to promote intercropping of medicinal plants in rubber plantations with the support of Ayurvedic companies on a pilot basis. The arrangement is carried out through a Memorandum of Understanding with RPS and the Ayurvedic company concerned, which envisages a buy-back arrangement of the harvested produce at a rate fixed in advance. Depending on the success of the pilot scheme, the initiative can be scaled up with assistance to growers through State Medicinal Plant Board.

2.9 **Mahatma Gandhi National Rural Employment Guarantee Act [MNREGA]** -MNREGA for NR replanting is another successful convergence of schemes, as both schemes seek to create durable assets and employment generation in rural areas. Several activities under Plantation Development Scheme can make use of labour from MNREGA for improving land productivity, soil protection and water conservation. As per the Scheme, MNREGA will meet the wage cost of unskilled and semi-skilled labour besides material cost accounting to nearly 52% of the cost for developing a hectare of labour. Hence, it is recommended to explore the plausibility of the replicating the scheme in other plantation crops as well, as the activity of replanting is one of the critical components in the development of plantation crops to augment production and productivity and thereby remain cost competitive. The modalities of the scheme be finalized in consultation with stakeholders and also drawing experience of the similar success case studies.

2.10 **Rubber Production Incentive Scheme [RPIS]** - This scheme is a classic example of plausible convergence in implementing schemes. The Kerala government, since 2015, has been implementing the 'Rubber Production Incentive Scheme' and presently the scheme guarantees NR growers a price of Rs 170/kg as per the recent announcement by Government of Kerala. As per the scheme, the difference in the amount of Rs.170/- and RSS 4 price of rubber published by the Rubber Board, will be directly credited to the account of the grower. The latex also qualifies for benefits under the scheme with some deductions. Rubber growers having rubber area up to five hectares can register in the scheme and the financial assistance is given up to two hectares of tappable area and limited to 1800 kilogram of rubber per hectare.

2.11 **Research & Development** - Drop in productivity of trees due to defoliation and fungal diseases are quite prevalent in NR. Research on new clones and planting material need to be fast phased, besides, need to use new technology to fast track development of new improved material with better productivity and resilience. New Tools of Genetic Engineering like Gene grafting and gene editing have to be deployed. New Genetically modified plants developed by the Rubber Board could be effectively used in Kerala and needs to be propagated for which sanction from the State is required and it is recommended that there should be a clear state policy in this regard.

2.12 **Carbon Market** - The carbon dioxide sequestration rate of rubber trees is very high as compared to many other plant species and even tropical forests which has been quantified by the RRII and research institutes in other countries. Production of one tonne of NR leads to absorption of 3.24 tonnes of CO_2 from the atmosphere and releases 2.35 tonnes of Oxygen. There is an urgent need to set up a voluntary market for such carbon sequestration for sale to a buyer either under a bilateral CDM or under the proposed Intended Nationally Determined Contributions (INDC) of developing countries like India could be explored. The State government need to pursue this matter with Union government for a more positive policy that will pave way for enhanced replanting area, greener and cleaner environment and supplement growers' income thereby supporting development of NR sector. Therefore, voluntary carbon market has to be established wherein industries need to buy credits from growers or other carbon sequestration project.

2.13 **Small Growers – RSS Production Model** - As 80% of the imports being block rubber, it is often suggested that there is a need to shift the processing from sheet rubber to block rubber. The Model of sheet processing has been a carefully thought-out model to empower and enrich small and medium growers to improve their position in the value chain. Shift towards Block Rubber will only lead to the growers being pushed into the mercy of the processing Industry who will dictate the prices as is seen happening in the nations that process block rubber and would turn out to be a policy mistake. Small growers - RSS production model need to be safe guarded by putting a cap on the quantity of low priced TSR imported. Hence, it is suggested that the State Government should champion the cause of small grower-sheet rubber model as it ensures better share for growers in the value chain. Towards this State should set-up technologically up-graded Group Processing Centre, improving smoke-houses and imparting good agricultural practices.

2.14 **Group Processing of NR** - Small Grower-Sheet Rubber model is the strength of Indian NR sector due to the higher share of farm price realization by the growers. However, to reap better benefits from this model, the requirement is to improve the quality consistency of product. In order to ensure the quality and standardization of sheets, Group Processing Centres should be promoted with facilities for processing latex better and state of the art effluent treatment. This is an area of potential convergence wherein the State Government can step in by setting up processing and other support facilities for small and marginal growers which would aid in avoiding cumbersome process of sheet making in marginal and small holdings. Importantly, the Government's help in facilitating the setting up of Group processing units would help in making the quality and consistent product and in getting a better share in the value addition.

2.15 **Value Addition** - The State is capable of producing diverse products by opening up of a cluster of Rubber Product Industries across the state and become the hub of manufacturing Rubber Products like Malaysia. This could involve designated Rubber Parks or even large plantations could be designated for such purpose. Focus should be on Latex based medical products and Industrial products in the SME, MSME Non tyre sector. Farmer Produce Companies (FPCS) could be the future Special Purpose Vehicle [SPVs] for such product manufacturing activities. There should be a dedicated fund for modernization of Rubber factories in processing and product manufacture, such as a] support for replacement of centrifuging plants, b] rollers and drying machinery, c] solar powered smoke houses and d] effluent based bio-gas plants to generate fuel for drying in rubber factories.

2.16 Today tyre companies add carbon black, silica and other chemicals to sheet or TSR in their factories, after the rubber is masticated. Many costs can be avoided and less energy consumed if the mixes are incorporated at the latex stage, that is, at the growers' point. Another growing problem is environmental pollution caused by synthetic plastics, which has led to the search for alternate materials such as biodegradable plastics. Natural rubber is one promising alternative as it is sustainable and environment-friendly. A big shift to natural rubber is being seen in the textile and medical-device manufacturing industry, especially in Europe. Natural Rubber Latex gloves will be required in large quantities and has an edge over Nitrile Gloves as it is biodegradable. For identifying new opportunities and innovation into other applications and industries, there is a need to strengthen the R&D department of the Rubber Board by collaborating with institutes such as the Akron Rubber Development Laboratory, USA. However, availability of raw material alone will not be sufficient to attract investment into the State. The government must also guarantee that laws are conducive to investment. If the government can successfully allay the fears of potential investors by creating an ROI-friendly environment, Kerala can develop a strong qualitative infrastructure for natural rubber.

2.17 Promote Natural Rubber [NR] bituminization considering the advantages of using rubber modified bitumen in the bituminized roads for the future National Highway (NH) road infrastructure so that the usage of NR could be increased. NR bituminization is a proved technology and in practice in many countries. Malaysia and Thailand lay many roads under Latex based Bitumen and the results on efficiency, safety and economy is well documented.

2.18 **NR Imports** - The NR sector has been going through a phase of crisis due to the steep fall in prices for the last 8-6 years. The prices are below the cost of production and the main reason for this being the surge of cheap imports into the country from South East Asian origins. This resulted in producers not tapping leading to drop in production. It is also feared that un-remunerative prices are causing growers to move to other crops and in such an event we will be increasingly dependent on imports for this strategic raw material, resulting in huge foreign exchange outgo, which was estimated at Rs. 4,620 crores in 2020-21.

2.19 Though it could be argued that import is only limited to the gap between production and consumption, to put things in perspective, import of Natural Rubber has increased, in absolute terms, from 0.77 lakh tonnes in 2008-09 to 4.10 lakh tonnes during 2020-21, after reaching the highest of 5.82 lakh tonnes in 2018-19. Import as a percentage of production had increased from 9.0% in the year 2008-09 to 57.4% in the year 2020-21, while imports as a percentage of consumption increased from 8.9% to 37.4 % during the corresponding period. The higher import of NR beyond the demand/consumption requirements results in dampening of prices and leading to increase in untapped areas. In this context the State Government should bring to the attention of the Union Government including through the forum of "cooperative federalism" the critical importance State consultation before any further changes to import policy.

2.20 As per the Finance Act 2020, Government can impose safeguard duty after conducting enquiry and if it finds that the article imported into India was in such increased quantity and could cause or threaten to cause serious injury to the domestic industry. In such case, Government through notification can apply safeguard measures. Further, safeguard measures can be imposed on article originating from a developing country, provided the share of import from that country exceeds three per cent. And in case, if the article was originating from more than one country the aggregate of the imports from each of such developing countries with less than three per cent import share taken together should exceed nine per cent of the total imports into India. Six countries viz. Indonesia (39.3%), Vietnam (18.2%), Cote D' Ivoire [11.3%], Singapore (9.1%), Malaysia (9.1%) and Thailand (7.8%) together account for 94.9% of the total imports during 2020-21. These facts on NR import provides a very strong case for imposing Safeguard duty by the Government, suo- motto.

2.21 State Government can take up the growers' concern on surge in imports, especially being the most aggrieved party since the State accounts for 75% of the production, by approaching Directorate General for Trade Remedies for safeguard measures by levying safeguard duty at 70 % to; a] to protect the livelihood of small producers and b] to protect National Interest of the country by maintaining its natural Rubber Production capacity Intact.

2.22 **Rubber as an Agricultural Commodity** - In the WTO regime, NR has been wrongly classified as industrial raw material. Rubber is an agriculturally grown crop like Cotton etc. and needs to be viewed as an agricultural crop deserving the protection like any other agricultural crops. Categorizing NR as not an agricultural commodity under WTO resulted in fixing lower bound rates at 25% as against agricultural produce which can entail protection of 100% or 150%. This classification has led to inflow of material from South-East Asian countries and threatens the very existence of the cultivation of this strategic crop, which supports millions of growers. The spirit of WTO clearly recognizes the rights of the nations to protect the livelihood of its citizens and take suitable measures to protect them and today a high time has come to review these classifications and, if required and possible, to renegotiate this classification for the survival of this Industry. Hence, steps be taken to reclassify NR as an agricultural produce under WTO and the permissible import duty be re- looked, especially since some of the competing NR producing countries have better insulated NR in their country by fixing higher bound rates. Moreover, as the internal consumption of NR is limited in other producing origins, the issue of import threat is not significant.

2.23 **Bound Rates** - Natural Rubber [dry form] was the only plantation commodity wherein the bound rate was fixed at a very low level of 25%. The base duty of dry forms of NR in the base year [1986] under WTO framework was 85 per cent (above the threshold level of 40 per cent) and hence should have been fixed at a bound rate of 40 per cent according to the norms. The fixation of lower bound rates for the dominant dry forms of NR thus was not only regressive but also an explicit violation of the standard norms fixed by the GOI.

2.24 **The Standard Input Output Norm [SION]** is the basis on which duty-free imports are carried out needs to be revisited and updated, factoring the technological advances in the sector that have reduced the quantity of Natural Rubber required to produce rubber products. The consuming industry continue to import based on these outdated norms. For instance, the SION norms for import for tyre specifies 44 percent of NR per tyre, while the actual requirement currently is only 18 per cent of NR per tyre as per the industry estimate. Regular periodic revision is required to SION for NR in tune with changing technologies and to ensure that imported NR with zero per cent import duty does not find its way into domestic market.

Coffee

2.25 **Developmental Schemes** - To improve the production and productivity of coffee the schemes implemented for horticultural crops viz. micro irrigation programme, support for mechanization, quality improvement, support for bio fertilizer, value addition etc., by the Department of Horticulture, Government of Kerala may be extended to the Coffee plantations. This could complement the developmental schemes implemented through Coffee Board viz., Coffee Expansion, Replantation of Aged/Senile Coffee Plantations, Productivity improvement of Robusta holdings by gap filling with elite clones and collar pruning, Water augmentation [Water storage tank, Sprinkler/Drip irrigation units, pump set, sprinkler pipes, open well, borewell], Quality upgradation (Pulper, Drying Yard, Mechanical driers, Godown, Moisture meter), Pollution abatement/Eco pulpers, Eco-certification, Rainfall Insurance, Coffee Market support [cost of processing & marketing], Interest Subsidy etc.

2.26 **Convergence of Central Schemes** - All the Centrally Sponsored Schemes viz., Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Rashtriya Krishi Vikas Yojana (RKVY), Mahatma Gandhi National Rural Employment Guarantee Act 2005 (MGNREGA), PM-Kisan Samman Nidhi, Pradhan Mantri Suraksha Bima Yojana (PMSBY) to be extended to Coffee plantations.

2.27 **Soil Testing Laboratories** - Department of Agriculture/Agricultural Universities of Government of Kerala may extend their services to coffee plantations also at concessional fees to help the growers to adopt judicious management of fertilizers across the State.

2.28 **Weather Insurance Scheme** – There is a need for implementation of either weather based or yield based insurance scheme to the coffee plantation through the State Government and Agricultural Insurance Company to help the coffee growers to tide over the crisis of recurring calamities.

2.29 **Value Addition** - To increase value addition and ensure good returns to Coffee growers, State may consider incentive for corporates for establishment of instant coffee manufacturing unit in the State. This will ensure a remunerative price to Coffee and also create an employment for the youths.

2.30 **Coffee Entrepreneurship Programme** - The Cafe cultures are the emerging trend in the urban areas and it is slowly picking up in semi urban/rural areas also. This has created a demand/requirement of skilled personnel/professionals in coffee preparation. In order to meet the demand and to provide training to the younger generation, Coffee Board in its plan proposal (2021-22 to 2025-26) proposed for establishment of Franchise Operated Franchise Owned India Coffee House (FOFO-ICH). In this FOFO-ICH, model Coffee Houses will be established in semi urban/rural areas by training unemployed educated rural youths. For establishing a coffee house, the entrepreneur has to invest minimum Rs.10 lakhs. In this regard, if Government of Kerala provides a partial seed money i.e. Rs.5.00 lakhs especially to women, Schedule Tribe and Schedule Caste youth, it will encourage more local youths to become startups/entrepreneurs in the coffee sector and also create employment opportunities to the younger generation. Hence, the proposal of providing seed money may be included in the plan proposal.

2.31 **Coffee Museum** - Kerala is a land of tourism. Already there exists an adopted tourism in the coffee lands of Kerala. Further, to attract more tourists, a coffee museum in Wayanad district be established depicting the birth of coffee plantations in India (Kerala in particular), the various aspects of coffee cultivation and its management in Indian coffee plantations with audio video visual aids. It will be very interesting and of its own kind to attract many tourists, dignitaries and students. This will add revenue generation to the Coffee sector and people employed.

2.32 **Rule 7b(1) of Income Tax Rules, 1962** - A Coffee grower needs to go through various stages of processing to make coffee ready for sale. At each stage, there is value being created for the grower. Rule 7B(1) introduced in the year 2001 has pre-empted the growers' drive and enthusiasm to value-add their production. To quote the Rule "Income derived from sale of coffee grown and cured by the seller in India shall be computed as if it were derived from business, and twenty-five percent of such income shall be deemed to be income liable to tax". Curing is nothing but a process akin to Milling where the coffee husk is removed through a process of hulling, pealing, polishing, grading, colour sorting, garbling, grading & bagging. A grower processing his produce, making it fit for market, cannot be termed as manufacture and be subjected to CIT. The Rule 7B(1) dissuades the grower from going in for value addition which is the need of the hour and in line with the need for increasing the better share in the value chain. State government can flag this issue with Central Government for necessary redressal.

2.33 **Coffee Chicory Mixture** - Coffee-chicory product is presently available in the market in varied proportions. However, the product available in the market place is a mixture of Coffee and Chicory and not separate as in the case of additives like sugar or milk, which ideally should have been the case. Moreover, the Total Suspended Solids [TSS] in chicory [45-65%] is much more than the TSS in Coffee [20-25%], which suggest that though the total weight of Chicory in the composition may be low, its composition in the brew may be significantly higher. This justifies the need to reduce/eliminate the chicory content in the Coffee-Chicory mixture. The coffee growing fraternity perceives that the reduction in chicory content will help in improving the visibility of coffee in the total product share and the consumer will be able to get a better feel and aroma of pure coffee. There is need to reduce the percentage of chicory content in the coffee-chicory blend from 49% to 30% to start with, which will improve the coffee content in the brew and better visibility of coffee.

Spices

2.34 Cardamom, Pepper, Nutmeg, Ginger, Turmeric, Long pepper, Camboge, etc. are major spices grown in the State [see Table 2.2]. State is also the largest producer of Cardamom and Nutmeg and the second largest producer of pepper in the country. With 540 registered exporters, of which around 100 are manufacturer exporters, the State is a major hub in value addition of spices.

Table 2.2: Production of major spices in Kerala – 2020-21 [in MT]

Spice	Kerala	India	Share (in per cent)
Pepper	22,000	65,000	34.00
Cardamom	20,570	22,520	91.00
Ginger	55,014	18,84,775	3.00
Turmeric	6,810	11,01,920	0.63
Nutmeg	14,340	15,075	95.00
Tamarind	33,825	1,59,243	21.38
Total (including others)	1,53,750	10,485,100	1.46

2.35 One of the major challenges in Spice sector is the lack of exportable surplus of Pepper, Cochin Ginger, Alleppey Finger Turmeric, Nutmeg, etc. and import from other origins. Another concern is the quality issues in spices- Aflatoxin, Pesticide residue, Salmonella. Some of the areas which requires State government intervention include implementation of pepper nursery, replanting irrigation programmes in mission mode, promoting area expansion as intercrops viz., Alleppey Finger Turmeric, Cochin Ginger in young rubber plantations and Nutmeg in coconut.

2.36 Some of the other challenges in the Spices sector include; aggregation and inadequate processing facilities; GAP/Organic Certification and sustainable production. This requires promoting collaborative efforts and support for FPOs/Sanitary and phytosanitary measures for value addition, Brand/ GI promotion. Further, establishment of State-owned Certification Agency, Promoting IPM / IDM /INM in spices and a Mission for Spices development is required.

2.37 Strengthening high end value addition is another key area. Non-Traditional Applications- Oils and Oleoresins, Health Foods, Cosmetics, Nutraceuticals, Medicinal properties, etc. also offers immense potential. The 'GAP & Go Organic' - is the trend that needs to be supported besides, thrust on Food Safety, Traceability, Sustainability, Fair Trade practices and GMP.

2.38 **Cardamom Replanting** - The present Cardamom Replanting Scheme of the Spices Board is confined to the holding size that is less than 8 hectares. This has resulted in denying the benefit of the scheme to many growers leading to haphazard replantation in the cardamom sector. Hence, there is a need for convergence in schemes of Spices with matching support from State Government for introducing a holistic replanting scheme for cardamom without any distinction, based on holding-size or ownership-pattern.

2.39 Biological cultivation of Cardamom should be promoted by using microbes to control fungus. Also, awareness work with Spices Board and Institute of Clinical Research India (ICRI) to be done so that only safe insecticide molecules are used. This would facilitate export more Cardamom to Saudi Arabia and other overseas markets.

2.40 **Pepper Imports** - Government of India had announced Minimum Import Price (MIP) of Rs.500 per kg on CIF basis, which was notified vide Notification No.42/2015-2020 dated 6th December 2017 to curtail imports. The introduction of MIP at Rs.500 /Kg could have helped in checking import of low-quality low-priced pepper. However, Government through the subsequent notifications diluted the impact of MIP by facilitating imports of pepper through other duty-free channels. This necessitates prohibiting 100% EOUs and units in SEZ from selling black pepper in the domestic market and Restricting pepper imports through a designated port.

Tea

2.41 Tea sector in the State can be characterized as one with low land productivity, stagnating or declining yields, relatively high wage cost [65%] in the total cost of production and the low-price realization. This has hampered the growth of the tea sector in the State. Further, the adverse impact of climate change has had severe impact on the crop prospects affecting lives and livelihoods. An analysis on the performance of the sector during the last decade suggest that Y-O-Y wage increase was 12% and the cost of production by 6.3%, while price realization increased only by 3.7%. It can be seen that improvement in prices was not commensurate with the increase in cost of production and wage rates. In the process, the organized tea sector's role is getting diminished as its share in production is below 50%, while the unorganized sector is relatively better placed due to cost advantage as there is no welfare cost that needs to borne by them as mandated by the Plantation Labour Act 1951. The organized sector should take note of the increasing emphasis on ESG (Environment, Social and Governance) criteria due to social pressures from consumers and democratic activism. There is a need to emphasize the contribution of the sector on all the three elements to put the pressures upon intermediaries of the value chain on price reduction. There is a need to collectively work to enhance the quality-of-life workers and simultaneously ensuring the economic viability of this sector.

2.42 For the immediate survival of the tea industry there should be a Support Price Mechanism extended by the Government for teas selling below cost of production, similar to the Rubber Production Incentive Scheme. Further, price support from the Kerala Government agencies buying teas in the Cochin auctions could be extended for the produce from Kerala's tea estates at prices at least in line with the cost of production. Kerala Government should also look at putting up a modern warehousing and value addition packaging unit similar to the model at Dubai Tea Trading Centre in Jebel Ali. This facility could be in a Special Economic Zone in Kochi, to enable tea estates in Kerala to add value by blending, packaging and branding their teas for exports, which would add premium to the commodity prices. A study be instituted to assess the financial impact of such a project.

2.43 Tea has not been fetching remunerative prices and the high taxation, reduced profit margins and low productivity on account of insufficient plough-back for replanting old areas saw the industry turning economically unviable. The declining prices almost coincide with the advent of soft drinks into the market in the 1980's. Subsequently, the entry of fruit juice in tetra packs, flavour infused teas and other sugary drinks that are backed by MNCs have only worsened the situation. With India having predominantly young population, it is likely that the per capita consumption of tea will face challenges in the future. To increase the per-capita consumption generic promotion campaign should be put in place.

2.44 The increasing role of State Government in affairs of planation development is important as the role of Central government is getting undermined due to availability of funds. In this regard, the Assam Government has announced various schemes for the Tea Sector in the State which are complimentary to the schemes implemented by the Central Government – Tea Board.

2.45 **Age of Bushes** - In Kerala, nearly 80 per cent of tea bushes are in the category of above 50 years. The high age of bush population has resulted in lower yield levels in the State at 1,758 kg/ha compared to the regional and State average, which are higher at 2,200 kg/ha and 1976 kg/ha respectively [See Table 2.3]. Hence, replanting has to be seen in a broader perspective. By enhancing field productivity, replanting also generates much higher employment per unit area than the old seedling fields. An element of State intervention and assistance to give a fillip to this activity will have a multi-dimensional impact on the long-term sustenance of this industry

Box 2.1

ASSAM GOVERNMENT SCHEMES FOR TEA SECTOR [RS]

Assam Tea Industries Special Incentive Scheme (ATISIS), 2020 has four components:

1. Interest Subvention on Working Capital. An interest subvention of 3 p.a. will be provided on Working Capital Loan,
2. Orthodox or Specialty Tea Production Subsidy. An industrial unit manufacturing Orthodox tea / Green tea / White tea / Oolong tea/ Singhpo tea/ Purple Tea / Yellow tea or other Specialty tea (not manufactured through CTC (Crush, Tear, Curl) process will be eligible for a subsidy of Rs. 7 per kg against such tea manufactured in a financial year,
3. Subsidy for Orthodox & Specialty Tea Unit for Plant & Machinery. A subsidy of 25% of the cost of Plant & Machinery of orthodox or any other Specialty tea
4. Agricultural Income Tax Holiday. A three-year Agricultural income Tax holiday for the financial year 2019-20 to 2021- 22.

Table 2.3: Age of Bushes & Yield in Tea

Kerala	Below 50 Years	Above 50 Years	Total	Yield
	[In Hectares] Kg/Ha			
	7,662	29,271	36,933	1,758
% to total Bush	20.75	79.25		
South India	48,068	54,243	1,02,311	2,200
% to total Bush	46.98	53.02		
All India	2,47,108	1,95,665	4,42,773	1,976
% to total Bush	55.81	44.19		

Source: Tea Statistics 2002-03 (Estimated figures]

2.46 **Frost Damage to Tea Bushes During Winter Months in Idukki** - Tea bushes during the winter months of December to February in Idukki district in Kerala, are invariably affected by frost. The low-lying areas are the worst affected. Because of the severe frost large areas of tea plantations suffer frost damage on an annual basis with tea bushes getting charred and in many cases getting totally burnt. This has resulted in heavy production loss for the tea growers as the recovery of the tea bushes takes many months. The heavy production loss on account of frost damage causes serious setback for the economic well-being of the tea growers/tea estates. With more than one fourth of the year getting into un-production mode, the economic viability of the tea gardens is under stress. There should be a State sponsored scheme to provide for financial relief to the tea plantations affected by frost, for its revenue and capital losses and frame an appropriate insurance cover for crop loss due to vagaries of weather.

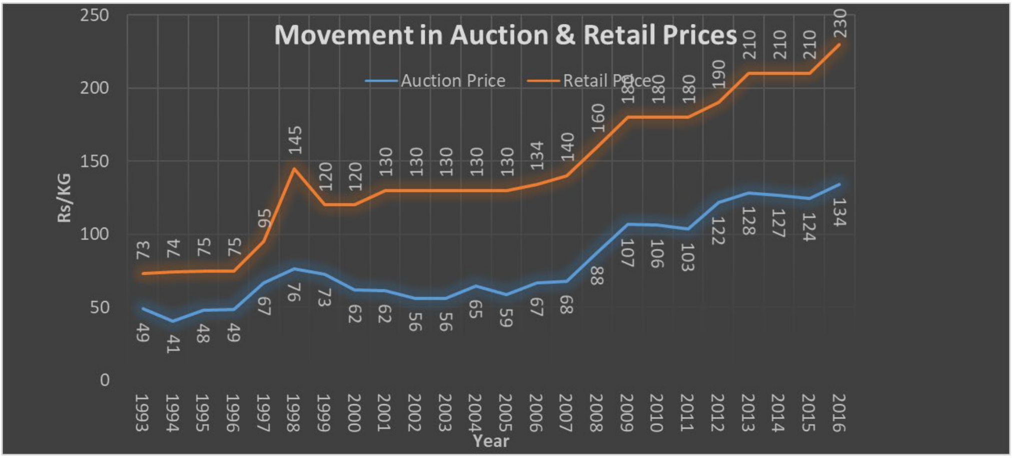
2.47 **Special Welfare Scheme for Tea Workers** - The Union Budget 2021-22 had announced Rs.1,000 crores for the welfare of the women tea workers only in Assam and West Bengal. Being a welfare scheme Kerala Government should take up with Central Government for a similar scheme in the State highlighting that there should not be any discrimination on welfare scheme based on region.

2.48 **Orthodox Tea Production Incentive** - To increase export volumes in tea, there is a need to provide incremental incentives to the producers to move from CTC to Orthodox type teas. Orthodox teas are cost intensive compared to CTC teas and unless there is some financial support, it is difficult to enthuse producers to change over. With this in objective, the Scheme was implemented to correct the imbalance in the current product mix within the country and to establish the earlier pre-eminence of India as the supplier of high quality and competitively priced orthodox tea to the international market.

2.49 **Tea Marketing Control Order (TMCO)** - As per TMCO-2003, tea manufacturers have to comply with the mandatory sale of 50% of the total tea manufactured through public auctions. From Tea producers' point of view, this is counterproductive given the wide divergence in the auction prices vis-à-vis retail prices. The Government, in the year 2001, had repealed the mandatory routing of tea through auctions, in line with the economic policy of liberalization and free trade which was subsequently amended in the year 2015, after 15 years. During this period, many tea producers have painstakingly developed domestic and international markets and were getting better price realization for their produce. Tea auctions in India have a finite load capacity as is evident from the higher out-lots. Further, there is no guarantee that the manufacturers get fair prices to cover even the cost of production. That being the market dynamics, compelling one segment of the value chain, viz producers to offer specific quantities of production without concomitant directive to buyers to source tea from auctions, is not a fair system. Further, routing of teas through auction increases the transaction cost such as warehousing charges, brokerage, lot-money, free trade samples, etc. Having incurred all these additional costs, there is no guarantee whatsoever that the teas would fetch better prices or for that matter whether it could be even sold. State Government should take up this matter with Central government that there should not be any mandatory provision of routing teas through auction.

2.50 **Auction Issues** - There is an inevitable concern about the adequacy of the currently existing domestic marketing arrangements for Indian teas. Producers are concerned about the institutional arrangements under which teas are being presently marketed and whether it enables the producers to secure the best unit value consistent with underlying conditions of supply and demand. This is evident from the movements in auction prices vis-à-vis retail prices. There are two noteworthy observations in this regard. First, while the auction prices dwindled there was no commensurate decline in the retail prices and in certain times it increased indicating that the consumption was rather buoyant and not stagnant. Second, the wide divergence in auction and retail price suggests a considerable scope for re-apportionment in the value chain. All costs beyond the farm gate stage when added up does not explain more than 50% add on, indicating, undue margins are made at the top end of the value chain, at the expense of the seller/producer suggesting a re-apportionment in the value chain. This could be due to incorrect/unscientific price discovery taking place at the auctions, which has no bearing on the supply/demand equation, because of a set of deranged rules which defy fundamental economic principles of a fair balance between the buyer and seller interests. Further, due to clogging of bids at the last moment and higher bids are not getting registered due to fixed time for active bidding. This calls for reforms in auctions. However, before taking a final decision on reforming the process of auctions, we need to get the opinion of small tea growers as well. This is because auctions assure easy liquidity for them, it is generally felt.

Figure 2.1 Movement in auction and retails prices of tea



SECTION 3
CROSS-CUTTING ISSUES IN THE KERALA PLANTATION SECTOR

3.1 The role of plantation sector as well as the institutional arrangements governing the sector has under-gone many changes. In contrast to the earlier regime of protection and State intervention in almost all spheres of plantation development, the current scheme of things is characterized by selective State intervention and the removal of trade barriers, wherein the survival of the sector depends on cost competitiveness. With the removal of tariff and non-tariff barriers, as per the provisions of WTO and Free Trade Agreements like ASEAN, SAFTA etc., plantation sector has to pay a heavy price that had further weakened the edifice of the sector. The most explicit outcome of the trade policy reforms has been perennial uncertainty in the farm gate prices of the crops.

3.2 At the other end of the gamut, the historically inherited infirmities in the value chain have been ignored as the exclusive domain of the trading capital. The issue deserves due attention as the share of material costs in the value added beyond the farm gate is rather insignificant with the notable exception of natural rubber. A significant share of the value added beyond the farm gate in the cases of other three edible crops accrued to the trading capital in form of margins, commissions and corporate profits from the retail sales. In practice, share of farm gate prices in the value chain have either stagnated or declined over a period of time. The huge gap between farm gate price and end consumer price is an enigma in agricultural commodities, and plantation commodities are no different. Incorrect price discovery, economic and infrastructural vulnerability of the producer, clout of retail marketing etc are the main reasons. And that's the reason why even in the case of integrated tea companies have chosen to extricate themselves from captive production. Equally, when value addition is prescribed as a panacea for the liberation of the primary producer, it should be ensured through suitable means (formation of FPOs/Co-operatives (e.g. AMUL), that the benefits of dis-intermediation accrue in fair measure to the primary producer.

3.3 This section discusses the cross-cutting issues that are relevant across all plantation crops. More specifically issues relating to land and labour matter, which are in the domain of State Government as per the scheme of distribution of legislative topics in the Constitution, the trade policy reforms and its impact on the plantation sector are discussed. The scope and possibility of the State intervention measures such as augmenting income from per unit area, price stabilization and value addition possibilities are discussed alongside the discourse on the plantation issues.

Land related

3.4 Land Policy of the State Governments where plantations are grown is to exempt the plantation crop from the ceiling provisions of their Kerala Land Reforms [KLR] Act [Table 3.1]. These exemptions for plantations were granted on the basis of the policy adumbrated in the Second and Third Five Year Plans of the Government of India. Three main factors were taken into account while recommending the exemption namely: 1) integrated nature of operations especially when industrial and agricultural work is undertaken as a composite enterprise; 2) specialized character of the operations and 3) the need to ensure that the operations are efficiently managed.

3.5 The plantations, and with few other activities, were given land ceiling exemptions and this was done based on detailed and careful scrutiny of socio-economic considerations. Issues taken into consideration are employment generation, capacity to provide basic education and healthcare in the rural hinterlands; foreign exchange earnings through exports and import substitution, contiguity of lands for economies of scale. However, given the rigid nature of the policy, if growers don't retain such lands as plantations in the event of diversifying into alternative crops of their choice, the exempted lands would be treated as 'surplus lands' and would be liable for acquisition by the Government, which pre-empted diversification to other crops.

Table 3.1: Crops exempted from land ceiling in Kerala

State	Plantation Crops
Kerala	Tea, Coffee, Rubber, Cardamom, Cocoa, Cinchona, Cashew

3.6 The State government amended the KLR Act (Act 6 of 2012) and allowed plantation lands not exceeding 5% of the extent of such holding for floriculture or for the cultivation of vanila or medicinal plants or other agricultural crops or for conducting dairy farms or for establishing hotels or resorts or other tourism projects and for ancillary purposes or connected therewith, considering the unabated financial crisis faced by the plantation sector.

3.7 The plantation sector in the State follows a pattern of long-term cultivation of a single crop, which has often led to lower generation of gross revenue per unit of cultivable land. In the event of market price volatility, the situation gets worsened as the fortunes are dependent on a single crop. In order to augment the economic condition of the plantations on a long- term basis, the revenue generation from one unit of land need to be increased, without altering the present fundamental character of the plantations.

3.8 **Diversification of Crops in Plantations** - The proposed changes have to be seen in the context wherein growers of plantation crops are pushed to vicious cycle of price fluctuations and perpetual penury. This necessitates finding ways to augment income from per unit area through optimum utilization of available resources. The long-term plan should be to augment the income augmenting capacity of the growers, which are ecologically and economically sustainable, and importantly without altering the basic structure of plantations. The current production levels can be sustained or further enhanced through replanting and adoption of precision farming in a significant portion of existing plantations. The balance portion can be considered for other agro-based cultivation, processing and value addition, plantation specific eco- tourism, agroforestry, renewable energy generation etc. Such change can enhance the employment potential of the plantation sector and revenue to the state exchequer.

3.9 Towards this, State should bring suitable **amendments to the Kerala Land Reforms Act, 1963** to include: a] more crops as plantation crops, so that the industry would be able to venture into cultivation of other crops including agroforestry; b] more area be earmarked for non-plantation activities without altering the structure of plantations; and c] An additional measure of relief to permit plantations to carry on 'eco-tourism' ventures. The intended purpose of the amendment would be to allow plantations to diversify a certain extent and thereby tide over the difficult situation and such conversion of the total holdings will only provide for more employment opportunities in plantations.

3.10 The areas assigned for the new crops must have guidelines in terms of bio diversity management, with emphasis on the principles of regenerative agriculture, complete with converting lands of high gradient and on the vicinity of water ways to agroforestry. Wind Belts must be integrated into the cropping pattern to provide additional carbon sink and improve the micro-climate.

3.11 The **shift to alternative land use options** should also be backed by comprehensive studies on the suitability of such crops in the region. The report of Directorate of Research, Kerala Agricultural University, the New Approach for Agricultural Development in Kerala – Delineation of Agro Ecological Zones & Recommended Cropping Pattern provides a perspective to scientific farming and suitable cropping pattern that could be adopted in the plantation growing regions.

3.12 Part of the plantation sections can be used for **crop diversification** into fruits, vegetables, medicinal plants, apiculture, poultry, dairying, meat production and processing and floriculture. A Single window clearance for such projects would be beneficial in attracting investments into the State of Kerala. To achieve government's vision on food security, high and ultra-high-density planting should be promoted for high yielding and high value produce. Setting up of hi-tech seedling nurseries, key horticulture infra structures, like mega integrated washing, grading and packing centres should be promoted so as to create a strong, functional and safe food brand for Kerala and for exports from Kerala.

3.13 **Agroforestry operations** should be permitted in plantations in Kerala in a sustainable manner, which in turn helps improving the revenue stream for the plantations and enable better land utilisation. The plantation land, which invariably adjoins forest, provide a perfect setting to carry out the agroforestry activity given the organised nature of its activities. The National Forest Policy [1998], targets increasing forest cover or tree cover to 33% from the present level of less than 25%. This has also to be seen in the background that that India imports a massive quantity of timber, annually 30 lakh cubic metres of timber is imported. The import bill for wood and wood derivatives is estimated to the tune of Rs 45,000 crore approximately. Further, under the Paris Agreement 2015, India needs to create a carbon sink of additional 2.5 to 3.0 billion tons of CO_2 equivalent by 2030. Therefore, more and more non-forest lands, including land under private ownership, are required to be brought under the tree cover for ecological, economic and environmental benefits. With no scope of increase in area under the Forest, the government needs to look at all possible land outside forests for afforestation and agroforestry could be an important tool to achieve the targets. This can be achieved through participatory approach of growers, LSGs and the Forest Department.

3.14 **Plantation Tourism** with proper environmental guidelines should be encouraged through single window clearance to attract investments in the sector.

3.15 **Land Utilization Order-1967** restricts converting from one plantation crop to another crop. The Order was promulgated when the State was going through an acute food shortage situation. This practically compelled grower to continue with the existing mono-crop and pre-empted their efforts to diversify to other allowed plantation crops factoring the changing agroclimatic conditions and economic realities. Necessary amendments to the Land Utilization Order 1967 are required so that the conversion from one plantation crop to another plantation crop is allowed without restrictions.

3.16 **Leased Land** - There are apprehensions among growers of plantation crops that after the lease period fixed in the original leases were over, planters will not be entitled to hold to these lands, and their continued possession will be illegal. The issue is that the lease agreement is either not renewed or there occurs a delay in renewing the agreement. One third of the cardamom plantations function on land without title-deeds. Because of this factor, the owners of the plantations find it difficult to raise bank loans or avail subsidies which are necessary for the running and expansion of the plantation. The State government, after considering reports of the Plantation Study Committee and Justice (Retd.) Krishnan Nair Committee, issued orders in 2012 and 2018, to renew lease agreements on time bound manner. The department of forests should take action on the basis of the recommendations.

3.17 **Ecologically Sensitive Areas** - The Ministry of Environment, Forests and Climate Change came out with the draft notification S.O.No.5135(E) dated 3.10.2018, proposing to declare 'Ecologically Sensitive Areas (ESA)' in the Western Ghats regions of the country. As far as the interest of plantations are concerned the planted areas in estates growing tea, coffee, natural rubber and spices should be excluded from the purview of the proposed ESA. Further, there should be no additional restrictions in respect of the aforementioned cultivated lands in light of the benign environmental impact and the probable positive impact such plantations could have on the environment. Exemption has been provided to plantation activities within the draft notification of 3rd October 2018 and accordingly, all existing plantations should continue to be exempted. However, citing the ESA notification and buffer zone notifications, the forest department has disallowed replanting operations of rubber plantations coming under such areas.

3.18 Plantations which were taken under the **Kerala Forest (Vesting & Management of Ecologically Fragile Lands) Ordinance 2000** continues to be vested despite being exempted from the definition of forest when it was made an Act in 2003. This needs to be addressed. Further, though some areas of certain plantations have been earmarked as environmentally fragile areas as per the provisions of the EFL Act, there is a delay in measuring and fixing them. Hence, the remaining areas where plantation crops were cultivated were also affected. To resolve this, steps will have to be taken to measure and fix the environmentally fragile areas.

3.19 **Climate Change** issues have affected the plantation sector in many ways. Torrential downpours or extended drought, high velocity winds and hail storms all were witnessed in this region during the last few years in succession. Fragile ecosystem of Western Ghats is exposed to extremities of weather conditions attributed to climate change for the past few years. Such changes have not only rattled the basic foundations of the plantation industry, but also have destroyed the livelihood of the society around us. It may be practically impossible to compensate such losses to any significant effect. Further, the Climate change had seriously affected productivity and production and has increased incidence of pests and diseases and damaged plantations and its infrastructure. The catastrophic fallouts of climate change and loss of biodiversity can no longer be ignored. It is now increasingly evident that improving the biodiversity of the lands and strengthening the resilience of our eco-system is imperative. The Government should mandate Kerala State Forest Research Institute to conduct Kerala plantation specific research to study the ecosystem services provided by the Plantation sector and the impact of the climate change on the same. A special focus is required on the impact of Climate Change on large number of small holders and adaptation requirements for the same.

3.20 Towards **mitigating climate change issues**, there is a need to embrace "Climate Smart Agriculture" broadly based on the following six themes, viz., 1] Better water management through storage and usage efficiency that could be achieved through changes in policy that will enable creation of check dams and reservoirs; 2] Growing of drought resistant crops and alter crop calendars to avoid extreme hot periods; 3] Intercropping and multi-cropping thereby increasing agricultural productivity and growers' income; 4] More organic inputs and avoiding excessive usage of chemical inputs based on norms developed through scientific study of soils and independent extension services to farmers so that our top soil is replenished, which will help in reducing agriculture's contribution to climate change 5] Increase efficiency of inputs i.e., water and fertiliser by implementing precision farming techniques; 6] Agroforestry - apart from the water holding capacity of trees by holding moisture, they prevent erosion and are good wind breakers and multiply a farms biodiversity. More birds on a farm means less insects and importantly trees sequester carbon. A well-articulated climate change mitigation actions must be made integral to new cropping areas.

3.21 Kerala Government must encourage **biological farming** by using microbes to improve humus and soil fertility. By using microbes and minerals we will be able to substantially reduce chemical manures especially Urea. Also, we can eliminate fungicides and reduce pesticides to a great extent. The above method will mitigate climate change to a very large extent. It is recommended exploring ways to reduce inputs in farming and this could include areas such as use of nano urea and integrated pest management etc.

3.22 **Small water harvesting and percolation units** are suitable in the plantation growing region. Such units will enable storage of rain water while raising the ground water table. They will also revive wells and ponds in the region and thus mitigate the problem of drinking water shortage during summer. Towards this, suitable support schemes can be conceived to put up water harvest structures by plantation managements inside their properties. The

Government should mandate Centre for Water Resources Development and Management (CWRDM) to develop a programme of intervention and guidelines based on field-based research.

3.23 **Power generation in eco-friendly manner** - The plantation lands can be utilized for producing electricity from renewable sources like solar energy, wind and biogas. A feasibility study be carried out with the help of ANERT on the matter. If successful, the initiative will give a big leap in eco-friendly power generation attempts.

Labour Welfare

3.24 **Cost of Production** - Kerala has turned out to be one of the **'High-Cost Producers'** of Plantation Commodities due to highest wages, highest input cost and the low productivity of land and labour. This coupled with constantly falling prices that too below the Cost of Production have brought the plantations to a situation wherein it is increasingly becoming financially unviable. The total cost of production in tea, which was Rs.44 per kg during 1995 had increased to around Rs.141 per kg by 2020 registering an increase of 220.5% [Table 3.2]. The annual rate of increase between 2010 and 2020 is a worrying factor for the tea industry when the price realization is much lower than the cost of production [Table 3.3]. The cost of production in Kerala is estimated at around Rs.156 per kg currently, which is higher than the south Indian cost figures given the higher wage cost, as wages account for 60-65% of the costs. There is a need for State support to enhance the welfare of the workers during these difficult times of the industry. However, the justification for this support need not be based on "top-down" perspective. There are other factors of production (investments, science & technology) equally play a role in improving the productivity

Table 3.2: Cost of Production in South India Tea (1995 – 2020)

Year	COP / kg	% increase compared to 1995
1995	44	
2000	58	31.8
2005	66	50.0
2010	80	81.8
2017	136	209.1
2020	141	220.5

Note: Compiled by UPASI-TRF

Table 3.3: Tea Prices vs COP – Kerala

Year	Avg. Price	Wages	CoP (Rs/Kg)	% annual increase in COP
2010	67.69	131.57	68	
2011	70.03	178.05	75	10.29
2012-13	93.75	183.45	86	14.66
2013-14	95.82	201.52	96	11.62
2014-15	81.15	216.53	105	9.37
2015-16	85.64	301.57	120	14.28
2016-17	106.12	307.73	135	12.5
2017-18	93.94	318.02	138	2.22
2018-19	103.15	378	145	5.07
2019-20	96.52	389.76	149	2.75
2020-21	140.4	401.52	154	3.35
2021-22	128.45	409.99	156	1.29

Source: APK

3.25 Kerala is number one in the country in the Human Development Index [HDI] and Sustainable Development Goal [SDGs] targets. The people below poverty line are also lowest. This is the achievement of the industry as well as people and welfare oriented developmental ethos of the State is exemplary. It is evident that the wages are increasing in all the three States of South India, with Kerala wages being the highest [Table 3.4]. The steep increase in labour wages between 1980 and 2021 increased the cost of production appreciably. The statutory benefits relating to wages works out to around 40% of the wages. When a wage rate of Rs.414.68 per day is paid, the total wages inclusive of fringe benefits comes to Rs.690.16 per day in Kerala [See Annexure 3.1]. The labour wages of South and North Indian tea growing States from 1980 to 2021 are quite revealing. Hence for cost control, the thrust should be to improve labour productivity and to rationalize the input levels. There is also a need for a holistic approach on mechanization

3.26 Another distinctive feature of the plantation crops is a highly skewed labour requirement for the crop harvesting operations. Despite crop and size-specific differences the sector has been confronted with the worsening supply of labour for crop harvesting operations. The shrinkage in the conventional sources of supply of labour in the absence of appropriate institutional reforms and innovations aggravated the crisis in the labour front. The plantation sector needs to **embrace mechanization** at the farm level, owing to the multiple benefits for the growers in terms of cost competitiveness, convenience and potential yield improvements. The major issue though, apart from the terrain challenges, lies in the capacity of farmers to adopt mechanization practices, owing to the high costs of procuring such equipment. To overcome this problem and successfully bring about mechanization at

Table 3.4: Labour Wages in Indian States – Tea

Year	Tamil Nadu	Kerala	Karnataka	Assam	West Bengal
1980	8.20	9.28	7.10	7.06	8.10
1985	15.90	15.63	10.33	10.40	11.25
1990	24.35	23.86	17.55	15.30	16.50
1995	39.88	44.71	32.33	23.60	N.A
2000	74.22	72.46	58.16	37.60	37.80
2005	77.53	78.10	70.13	48.50	48.40
2010	125.76	130.65	114.72	66.50	62.50
2015	223.58	266.17	243.07	115.00	122.50
2017	265.76	316.04	274.49	137.00	132.50
2018	306.87	325.79	314.11	167.00	150.00
2019	317.41	387.89	322.75	167.00	150.00
2020	331.34	399.77	324.62	167.00	176.00
2021*	347.57	414.68	357.16	205.00	202.00

Note: *As on October 2021.

the farm level in the plantation sector. In the small farmers sector, establishment of **Custom Hiring Centres (CHCs)** should be promoted. The Rubber Tapper Bank model of Rubber Board could also be contemplated for other plantation crops.

3.27 As the plantation sector moves to value-added production, there would be a great demand for skilled labour. Considering the fact that it is the single great contributor to labours in the public-private sector, steps need to be taken to frame skill development schemes to meet the needs of the plantation sector. There needs to be regular **skilling and re-skilling programme** which can be carried out through Agricultural Skill Council of India [ASCI] for tea, coffee and Spices and Rubber Skill Development Council [RSDC] for Rubber.

3.28 **Labour Welfare** - Plantation Labour Act (PLA) 1951 is one of the most important legislations taking care of social welfare of plantation labourers. This Act covers all plantations measuring 5 hectares or more, employing 15 or more persons. The Act provides for compulsory housing, education and mandatory health provisions such as medical facilities, drinking water, sanitary facilities and water supply in the labour residences to be provided by the plantation. The other welfare provisions provided are canteens, crèches, recreational facilities and primary schools for children. The educational requirements have largely been taken over by the government in plantations. The difficulties faced by children living in remote plantation areas, in getting mobile /internet connectivity is an issue that needs immediate re-dressal. This calls for a joint initiative between the government and the plantations, besides dovetailing the HRD schemes of the Boards.

3.29 Labour welfare measures in the plantations in the State of Kerala are governed by the Plantations Labour Act, 1951 and the Kerala Plantations Labour Rules, 1959. In Kerala, there are 661 estates functioning, employing around 57,562 workers, of which 29,583 are women and 27,979 are men. The crop-wise employment of workers in the plantations in Kerala are 36,698 workers in tea, 11,424 in rubber, 4,300 in coffee and 4,284 in cardamom [Source: Inspectorate of Plantations, Kerala].

3.30 With the introduction of the three-tier Panchayat Raj System in the country pursuant to the Constitution (73rd Amendment) Act, 1992, all the welfare amenities such as medical facilities, water supply, crèches, education, recreation and even housing are the statutory responsibilities of the local bodies. In all the panchayat areas other than plantation regions, these facilities are provided by these bodies, while plantations are denied the facilities on the ground that they are the statutory responsibility of plantations under the P.L. Act. At the same time, in these areas most of the tax revenues of the panchayats are contributed by the plantation employers with no quid pro quo. The **convergence of Local Self Government schemes** should be explored and implemented, which would enhance the level playing field in the plantation sector.

3.31 In order to boost the life standards of the plantation workers, the plantation sector should be included in the **various schemes of the local self-government (LSG) institutions.** These include drinking water project, sanitation and providing toilets and mother-child care project, and can be jointly implemented by LSGs and plantation owners.

3.32 The Medical benefits of the plantation workers should be brought under the **Employees State Insurance (ESI) Scheme**, except in gardens where there are already fully established medical facilities. Currently health cover is given to plantation workers through Garden Hospital and Group Hospital as per the provisions of the Plantation Labour Rules. Until such time when the ESI Scheme is enforced, the current system should continue with assistance of Health Department wherever required.

3.33 **Sharing of Social Costs** - The Inter-Ministerial Committee of the Central Government had suggested a formula for sharing these social costs between the concerned State Government, the Central Government and the plantation employer at a specified ratio viz., 50% by plantation sector and balance 50% by Centre [40%] and State [10%]. However, in the absence of agreement between the Central and State Governments on the ratio of sharing these costs, the issue has been pushed to the back burner in official circles over a long time, with no Government relief flowing to the planting sector. A relief accruing through financial assistance from the Governments as contemplated above would not only lead to a lessening of the cost burden on plantation employers.

3.34 **Labour Housing** - The workers in the plantations are residing in the accommodation provided by the management, which are situated in the plantations itself. The Section 15 of PL Act, 1951 mandates every employer to provide and maintain necessary rent-free housing accommodation to plantation workers. Towards this, Rules were framed in the Kerala Plantations Labour Rules under Rule 55 to 62 with regard to construction of houses, standard and specification of housing, housing scheme, maintenance of houses.

3.35 As per Inspectorate of Plantations, there are 5,320 labour lines in the plantations in Kerala with total housing units in the State estimated at 26,735 units, as each housing line consist of 4,6,10 labour units. Needless to mention that the living standards of the plantation labour needs improvement. This could not be fully pursued by the industry given the economic hardships that plantation sector was going through in the last couple of decades. These houses were constructed in the 1950s and 1960s and this necessitates a change in the housing design as per the changing requirements. Needless to mention that the housing units for plantation labor has to be re-designed taking into the terrains as well as considering the aspirations of the labor, for which there is a need for a time bound action plan.

3.36 With regard to **construction of own-houses for plantation workers,** the Kerala's Plantation Policy has suggested a holistic housing scheme under LIFE mission as per its guidelines. It was also suggested, Government and Management can contribute an equal share of 50% of the cost. For this purpose, the land has to be given by the estate on a basis of Memorandum of Agreement. However, there are practical issues involved in providing the land for labour housing, as providing land for construction of houses to present generations of workers will have implications on housing for future generations. Hence, it suggested the nitty-gritties of implementation be best decided by the Government and Management on a mutually acceptable basis.

3.37 The construction of new house for labourers be carried out by management with a new design as per the changing needs and aspiration of the workers. This should be carried out on mission mode for which Government should provide interest free soft loans to be repaid over the period 20 years. The implementation of the scheme can be entrusted with the Plantation Labour Housing Advisory Board as per the Plantation Housing Subsidy Scheme of 1975. As per PL rules, as and when a worker retires, the quarters provided to him/her be vacated within one-month period. For the retired plantation workers, the Government should construct houses outside the plantations for their settlement.

3.38 **Abandoned Gardens** - There are 14 closed gardens in the State with around 3500 workers. There is a need to understand the root cause of such a debacle and proper revival measures be initiated after carrying out a detailed study and solution themes can also emulate successful models tried out elsewhere.

SUPPORT MEASURES – COST REDUCTION AND PRICE SUPPORT

3.39 **Linkage of MNREGA scheme:** The Mahatma Gandhi National Rural Employment Guarantee Act [MGNREGA] provides for minimum 100 days of wage employment in a year to every household in the country. An alternate objective of the Act is to create public infrastructure such as roads, wells, ponds, and canals. Implementation of the Act falls under the purview of the Union Ministry of Rural Development, with local Gram Panchayats (GPs) being the implementation body on ground. Since labour costs account for 60-65% of the total cost of production, in plantation sector, dovetailing the scheme to plantation sector would aid cost reduction and will also address the issue of shortage of labour. This would require close co- ordination between multiple bodies, including the Ministry of Rural Development, local bodies such as GPs, and the Commodity Boards. Several activities under plantation development schemes of Commodity Boards can make use of labour from MGNREGA such as plantation development activities, which are in the nature of asset creation. This scheme is already being implemented successfully in NR sector and could be easily replicated for other plantation crops in the State.

3.40 **Farm Mechanization** - There is a unanimous view that plantation sector needs to embrace mechanization at the farm level, owing to the multiple benefits for the growers in terms of cost reduction, convenience and potential yield improvements. The major issue though, apart from the terrain challenges, lies in the capacity of farmers to adopt mechanization practices, owing to the high costs of procuring such equipment. To overcome this problem and successfully bring about mechanization at the farm level in the plantation sector, especially among the smaller farmers, establishment of Custom Hiring Centres (CHCs) concept be tried out.

3.41 **Production Incentive Scheme** – Rubber Production Incentive Scheme [RPIS] introduced by the Kerala government and facilitated by Rubber Board, guarantees a price of Rs 170/Kg for RSS 4 sheet rubber, as per the recent announcement by the Government of Kerala informing that the seventh phase of the Scheme would be implemented effective from 1st July 2021. As per the scheme, the difference in amount of Rs.170/- and RSS 4 price of rubber published by the Rubber Board for one kilogram of rubber will be directly credited to the account of the grower. This is a very successful scheme that ensured growers are given prices that covers cost of production besides ensuring its stability and this needs to be replicated in other crops as well, without any restrictions on the basis of size.

3.42 There is a need to protect the growers of plantation crops from the twin risks of yield loss due to adverse weather parameters, pest attacks etc. and income loss caused by fall in international/domestic price through a **Revenue Insurance Scheme.**

3.43 **Value Addition** - Performing value addition activities requires significant investment into equipment's which is the challenge for majority of growers. Formation of FPOs would enable growers to come together and reduce the costs through infrastructure sharing and increase profitability through economies of scale thereby moving higher onto value chains. For successful formation of FPO in plantation sector necessary handholding support can be given by State Government during the development stage in coordination with agencies like NABARD etc for capital funding support. FPOs are entitled to 100% tax exemption for period of 5 years provided turnover is less than Rs.100 crores. In the case of Tea, the three main growing regions, viz., Munnar, Wayanad and Central Travancore with their characteristic agro-climatic conditions and consequent distinct tea quality attributes, supported by unique bio diversity features of the geography, would provide a great point of marketing differentiation under an umbrella 'Kerala Brand', to be leveraged through digital marketing channels, targeting national and international clientele. Civil supplies corporation should exclusively market Kerala teas for internal consumption in the state.

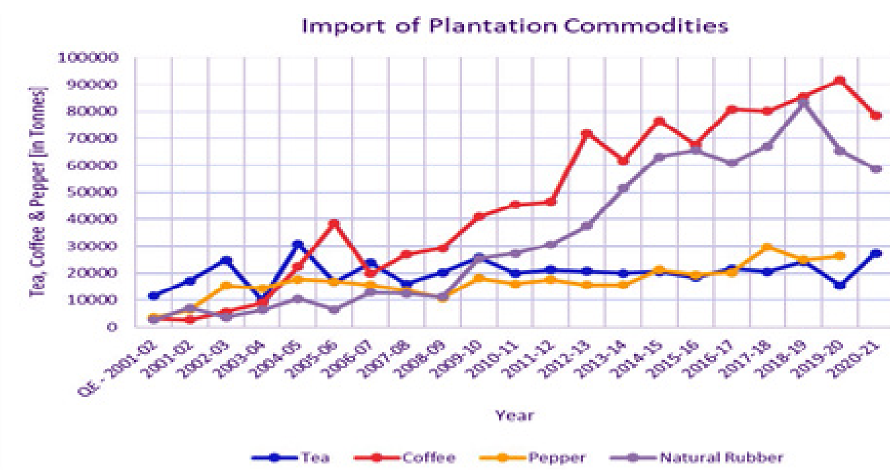
3.44 The **cluster projects** under the industry department can be extended to other plantation crops for the production of value-added products. This will pave the way for the production and distribution of value-added products by both small and big farmers. The case in point is the Rubber Park initiative of Rubber Board and KINFRA. The Rubber Park concept will have far reaching changes in the country's rubber industry. The Park has well laid out plots earmarked exclusively for setting up rubber industries from tyre re-treading to automotive tyres, surgical gloves to conveyor belts, plywood to chemically treated quality rubber wood furniture and the like. This model should be replicated for other commodities like tea, coffee and spices.

3.45 **Research-Extension Linkages:** The untapped synergy in the linkage in deriving access to emerging frontiers in agricultural research, between Plantation Crop Research Institutes run by the concerned Commodity Boards, such as RRII, CCRI, IISR and the Industry run organizations such as UPASI-TRF in collaborating with the Central and State Research Institutes/Universities, some of which are based locally, should be explored.

TRADE RELATED

3.46 The removal of quantitative restrictions on 1st April 2001 resulted in plantation sector being exposed to the global competition, without any level playing field vis-à-vis other producing origins. The situation got further compounded by gradual eroding of India's share in the world markets and increasing threat of imports of plantation commodities into India. With the opening up the economy, our large market turned out to be a big attraction for other planation producing origins, as the Indian market potential is being eyed enviably by each and every planation producing country. The graph illustrates the growth in imports of most of the plantation commodities ever since our market was opened up. The marginal decline in imports in Coffee and NR during 2020-21 was more related to logistic issues on account of pandemic induced lockdown measures that had disrupted the supply chain. In Tea, import during 2020 showed an increase of 48 percent.

Figure 3.1 Import of Plantation Commodities



3.47 Plantation commodities, except natural rubber, were fairly protected from imports under WTO, as the tariff rates were fixed at 100% for Tea and Coffee; 70% for Pepper and Cardamom. However, in the case of natural rubber the bound rates fixed at 25% turned out to be disaster more or less sealing the fate of the NR sub-sector. This has happened due to two wrong policy decisions viz., classification of NR as an industrial raw material as against an agricultural produce and wrong fixation of bound rates and actual tariffs.

3.48 Presently there are around 14 Free Trade agreements in operation in the country and many more in the offing. Further, around a dozen are either under negotiations or review. As far as the plantation sector is concerned few crucial Free Trade Agreements/Preferential Trade Agreements of concern are:

- India-Sri Lanka FTA [since 2000] – Bilateral Agreement
- South Asian FTA –SAFTA [since 2006] – Multilateral Agreement [Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka].
- Asia-Pacific Trade Agreement – Multilateral Agreement [since 1975 -initially known as Bangkok Agreement and since 2005 APTA] - Multilateral [Bangladesh, China, India, Republic of Korea, Lao PDR and Sri Lanka]
- India-Nepal Treaty of Trade – Bilateral Agreement [since 2009 extended up to 2023]
- ASEAN [since 2010] – Multilateral Agreement [Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam]

3.49 The tariff rates under WTO and various trade agreement by commodity is given in the Table 3.5. As per the ASEAN Trade Agreement, import tariff for Tea and Coffee was brought down in a phased manner to 45% from the level of 100% and pepper to 50% from 70% over a period of 10 years. Free Trade Agreement with ASEAN signed in 2009 turned out to be a disaster for Plantation sector for many reasons. First, most of the ASEAN countries are major producer-exporters of plantation commodities and are relatively cost competitive compared to India. Second, their internal market is very limited, unlike India which is a large country and its requirement is also huge. This provided a perfect setting for inflow of cheap products from ASEAN countries into the domestic market spelling doom to the plantation sector in India. Third, the average productivity levels being relatively low for most of plantation commodities in India provided an added competitive advantage for the ASEAN countries. This was facilitated by the recent introduction of the plantation crops in these countries that provided a natural advantage in terms of fertile soil and high yielding clones etc. And last, but most important is the cost of production in India vis-à-vis ASEAN countries, as the labour wage cost and compliance cost arising out of various legislations in India is inexplicably high. The additional burden of social costs, which are normally the responsibilities of the State/local authorities, have made Indian plantation commodities very costly compared to other producing countries and we were losing out on export competitiveness.

Table 3.5: Tariffs under Free Trade Agreements

Commodity	WTO	ASEAN	SAFTA	Asia- Pacific	Indo- Sri Lanka
TEA	100	45	0 for LDC & 8	No Preference	15,000 m.t @7.5
COFFEE	100	45	O for LDC & 5	No Preference	
NATURAL RUBBER @	25 [or Rs.30 per kg – which ever lower]	No Preference	0 for LDC & No Preference	20	
CARDAMOM	70	No Preference	0 for LDC & 8	No Preference	
PEPPER	70	50	0 for LDC & 8	No Preference	2500 m.t @0

Note: @ Sheet Rubber LDC= Least Developed Countries
Compiled by UPASI

3.50 **Regional Comprehensive Economic Partnership (RCEP)** - The Regional Comprehensive Economic Partnership (RCEP) proposed between ten members of Association of South-East Asian Nations (ASEAN) viz. Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam plus the countries viz. Australia, New Zealand, Japan, South Korea, China and India, should not never be re-opened. While, we had an overall trade surplus in the plantation commodities to the tune of Rs. 4,368 crores during 2018-19, with RCEP countries we had a trade deficit in the plantation commodities estimated at Rs. [-] 5,716.64 crores. Among the 5 plantation commodities, Natural Rubber and Pepper have an overall trade deficit, irrespective of RCEP. High trade deficit in natural rubber clearly indicates the wrong classification of NR as industrial raw material and thereby lower bound duty fixed under WTO at 25 %, which aided large scale imports. This is despite NR being kept under exclusion list under ASEAN agreement. In pepper, due to multiple bilateral [Indo Sri Lanka] and multi-lateral trade agreements [SAFTA & ASEAN], the trade deficit had increased over the years and the trade deficit with RCEP countries was Rs. [-] 415.31 crores during 2018-19. Coffee being an export dominated commodity with more than 75 % being exported, India has an overall trade surplus of Rs. 4763.4 crores, while we have a trade deficit with RCEP countries at Rs.[-] 164.35 crores. This clearly suggest that plantation commodities will be a significant loser if we had signed the RCEP agreement.

3.51 While there may be many compulsive reasons for the Government of India to go in for Trade Agreements with other nations/regions, the interests of the domestic industry should be taken care off especially in sectors like plantations where large number of people are dependent on. It is important that no fresh trade commitments impacting plantation sector should be entertained. This includes the renewal of existing trade agreements and also any new trade agreements. There is a need for a proper monitoring mechanism to be in place so that the import of goods is checked for quality norms and proper implementation of Rules on Country of Origin is carried out, so that no third country takes advantage of the Free Trade Agreement.

3.52 The broad objective of the Agriculture Export Policy [AEP] is to double agricultural exports from present US$ 30 plus billion to US$ 60 plus billion by 2022 and reach US$ 100 billion in the next few years thereafter, with a stable trade policy regime. To double India's share in world agricultural exports by integrating with global value chain and enabling farmers to get benefit of export opportunities in overseas market. To achieve these goals, Government of India had emphasized the need for focusing on a cluster development approach to boost the agricultural and horticultural production in India. The export centric clusters are likely to result in a more focused pre and post-harvest management of the production as well as in upgrading the supply chain to attain much higher levels of export from those clusters. In Kerala, the only cluster for plantation crop is in Idukki for cardamom and in Wayand for Pepper, as per AEP and there is a need for new cluster for tea in Ernakulam district and Coffee in Wayanad district.

SECTION 4
ROAD MAP FOR THE KERALA PLANTATION SECTOR

4.1 As discussed, in sections 2 & 3, the lower prices for the commodities have deteriorated the trade-terms, essentially reducing the growers purchasing power and has led to low agricultural productivity and production, coupled with high production costs and labour costs. This necessitates the need for policy response so as to increase the share of producers in the value chain, through definite financial and policy support to the sector. While framing revival measures for the sector the holistic development of the plantation sector in the State should be the theme with attention to the specific issues of small and large holdings appropriately.

4.2 From the State perspective, sustaining the commercial feasibility of the four crops is important for reasons varying from livelihood issues of growers and workers, domestic market orientation to strategic commercial importance. Therefore, there is a need for generation of a reliable database based on a census of the four plantation crops in the State in collaboration with the concerned Government of India agencies. It is also suggested that consultation with Statistical Commission be done to ensure consistency in the information format. The primary objective of the census shall be a scientific analysis of the current status of the plantations as well as the planting households. All the plantation lands in the State should be mapped under the proposed Directorate of Plantations.

4.3 The overarching roles of the Government of India, through Commodity Boards, in providing institutional support and rehabilitation packages to issues ranging from production to marketing has limited the areas of interventions by the Government of Kerala. Apparently, pivotal roles of the Government of India agencies and the limited role of the State Government Agencies led to dualistic policy approaches in the plantation crops sub-sector without perspective planning and necessary co-ordination. But, with the declining role of the Central Government as evident from the lower outlay to the sector clearly suggest a more active role of the State Government in complementing and supplementing the development of the plantation sector.

4.4 The Kerala Government initiative of creating the Directorate of Plantation marks a new beginning in the development process of plantation sector. Incidentally, setting up of the Directorate was the recommendation of the Justice [R] Krishnan Nair Committee report and Kerala's Plantation Policy 2021 [See Box]. In the Budget 2021-22 the new LDF Government has announced creation of the Directorate of plantations under the Department of Industries with an initial allocation of Rs.2 crore. To quote the Budget Speech "Diversification of plantation crops is the need of the hour. There shall be mechanism for cultivation, procurement, storage and finding market for new fruit varieties like rambutan, avocado and dragon fruit, mangosteen, longan etc. in addition to traditional plantation crops. Departments concerned shall take initiative within a short time to conduct studies and discussions to formulate a policy and based on this a scheme shall be prepared within six months. An amount of Rs. 2 crore is earmarked for initial activities".

Box 4.1

JUSTICE KRISHNAN NAIR COMMISSION RECOMMENDATIONS & GOVERNMENT DECISIONS

The Justice Krishnan Nair Commission was appointed in 2015, which submitted its report to the Government in August 2016. This report recommended 14 specific policy changes in the plantation sector. The State Government appointed a Committee of Secretaries to implement the major recommendations of this report. In June 2018, a major set of decisions were taken by the Council of Ministers, Government of Kerala, which were long-standing demands of the plantation sector in Kerala.

1) The State decided to completely abolish plantation taxes.
2) The collection of agricultural income tax from plantations was to be frozen. (In 2018, The Government of Kerala has decided to abolish the Agricultural Income Tax Act. However, the Abolition Bill is yet to be passed by the Assembly).
3) Charges of seigniorage in the cutting of rubber trees were abolished.
4) All layams (labour lines) in the plantations were to be exempted from the building taxes charged by the local bodies.
5) The reconstruction of layams would be included as part of the LIFE Mission of the Kerala Government and 50 per cent of the reconstruction costs would be met by the State Government. The estate owners may pay the rest 50 per cent over seven annual instalments. In a survey, it was found that 32,454 plantation workers were homeless. In addition, about 5348 retired plantation workers were homeless. They will be included under the ambit of LIFE mission.
6) The procedure of renewing leases of plantations would be eased.
7) Plantation lands will be exempted from the Kerala Forest (Vesting and Management of Ecologically Fragile Land) Act (EFL).
8) A plantation policy would be formulated for the State.

Box 4.2
Plantation Policy - 2021

The major points in the plantation policy are –

1) Plantations would be retained and protected as plantations. The policy of renewing leases of plantations would be further eased and hastened. This would ensure that the existing barriers to services like bank credit would be removed.
2) The measurement and demarcation of EFL would be hastened, so that more land can be brought under cultivation at the earliest.
3) The Government would favorably visit the theme of maximizing income from one unit of plantation land. This would be attempted without disturbing the basic features of production in a plantation. The Government will explore the possibilities for allowing more inter-cropping, particularly vegetables, in the plantations. The Government will also explore if the Land Utilization Order of 1967 needs amendment in this regard.
4) A major initiative for improving the processing and value-addition of plantation crops will be introduced. The cluster schemes of the Industries department will be extended to plantation crops also.
5) Plantations currently closed will be reopened with the help of cooperatives or other means. This will help protect the employment of plantation workers.
6) Schemes of local bodies will include schemes for plantation workers and plantations also.
7) A special scheme for improving the skills of plantation workers will be introduced.
8) The Plantation Relief Fund and its activities will be streamlined and improved.
9) Given the impact of climate variations, plantation regions will also require better watershed-based planning, construction of small water storage structures, renovation of wells and ponds and drinking water schemes. Using funds from the Disaster Management Authority, such works will be undertaken in consultation with the plantation managements and local bodies.
10) Production of renewable energy – solar, wind and biogas – will be promoted in the plantation sectors.
11) Possibilities of tourism in the plantations may be visited, but it will be implemented with the condition that the basic structure of plantations will remain unchanged.
12) A Plantation Directorate will be formed by the Government, which will allow the convergence of activities of the departments of revenue, forest, labour, industry, local bodies, finance, power and agriculture. This Directorate will be a one-stop contact point for all activities related to plantations and the State Government.
13) All incentives and exemptions available to new industrial units will also be available for plantation-related initiatives.

Source: Draft Plantation Policy has been approved by cabinet in Jan 2021

4.5 The initiative of the State Government assumes immense relevance. As mentioned, the funds allocated for developmental activities in the Union Budget for plantation sector is getting increasingly limited, as a major share of the allocation goes for administrative expenses, necessitates an increasing role of the State agencies in complementing the development initiatives of this important agro- industry wherever there is a plausibility of convergence. The State Government should bring to the attention of the Union Government the significance of this sector in terms of its export potential (including value added products) as well as environmental benefits in terms of carbon sequestration and green cover and ensure that the funding to the sector is enhanced. The focus should be to bring modern science and technology to improve crop yields and other necessary infrastructure keeping in view the potential impacts of climate change.

4.6 For the sake of brevity, the recommendations for the revival of the plantation sector are structured around three broad themes a] the challenges to be addressed by State, viz., land and labour related issues; b] commodity specific issues where there are convergence possibilities in policy response by both Union and State Governments and c] the policy response exclusively from the Central Government especially on international trade matters.

A.State specific issues

1.Land related issues

4.7 Revenue generation from one unit of land of plantation need to be increased, without altering the present fundamental character of the plantations. Towards this suitable amendment be introduced to the Kerala Land Reforms Act, 1963 to include: a] more crops as plantation crops, so that the industry would be able to venture into cultivation of other crops including agroforestry; b] more area be earmarked for non-plantation activities without altering the structure of plantations; and c] An additional measure of relief to permit plantations to carry on 'eco-tourism' ventures.

4.8 Agroforestry operations should be permitted in plantations in Kerala in a sustainable manner, which in turn helps improving the revenue stream for the plantations and enable better land utilization.

4.9 Plantation Tourism with proper environmental guidelines should be encouraged through single window clearance to attract investments in the sector.

4.10 The areas assigned for the new crops must have strict guidance in terms of bio diversity management, with emphasis on the principles of regenerative agriculture, complete with converting lands of high gradient and on the vicinity of water ways to agroforestry.

4.11 Necessary amendments to the Land Utilization Order 1967 be introduced so that the conversion from one plantation crop to another plantation crop/crop is allowed without restrictions.

4.12 The renewal of lease agreements on time bound manner should be ensured for which the department of forests should take action on the basis of the recommendations.

2. Labour related

4.13 In order to boost the life standards of the plantation workers, the plantation sector should be included in the various schemes of the local self-government (LSG) institutions.

These include drinking water project, sanitation and providing toilets and mother-child care project, and can be jointly implemented by LSGs and plantation owners.

4.14 Housing units for plantation labor has to be re-designed with time bound action plan. Construction of new house for labourers should be carried out by management with a new design as per the changing needs and aspiration of the workers. This should be carried out on mission mode for which Government should provide interest free soft loans to be repaid over the period 20 years. The implementation of the scheme can be entrusted with the Plantation Labour Housing Advisory Board as per the Plantation Housing Subsidy Scheme of 1975.

4.15 For the retired landless plantation workers, the Government should construct houses outside the plantations for their settlement.

4.16 The Inter-Ministerial Committee recommendation of sharing the social costs between the Central/ State Government and the plantation employer at a specified ratio needs to be pursued by the State Government.

4.17 Revival measures for re-opening the abandoned gardens be initiated by the State Government after carrying out detailed study and also explore emulating successful models tried out elsewhere.

B.COMMODITY SPECIFIC ISSUES – CONVERGE OF UNION AND STATE GOVERNMENT SCHEMES

1. FARM MANAGEMENT

General

4.18 The State Government may mandate Kerala State Forest Research Institute to conduct Kerala plantation specific research to study the ecosystem services provided by the Plantation sector and the impact of the climate change on the same. A special focus is required on the impact of Climate Change on large number of small holders and adaptation requirements for the same.

4.19 Suitable support schemes be conceived to put up water harvest structures by plantation managements inside their properties. Government may mandate Centre for Water Resources Development and Management (CWRDM) to develop a programme of intervention and guidelines based on field-based research.

4.20 There should be measures to reduce inputs in farming and this could include areas such as use of nano urea and integrated pest management etc.

4.21 Department of Agriculture/Agricultural Universities of Government of Kerala may extend their services to plantation sector at concessional fees to help the growers to adopt judicious management of fertilizers across the State.

4.22 Implement a revenue insurance scheme for plantations to protect them from the twin risks of yield loss due to adverse weather parameters, pest attach etc., and income loss caused by fall in domestic prices.

4.23 Given the shortage of labour, farm Mechanization should be given thrust to bring about mechanization at the farm level in the plantation sector. For the benefit of small growers, establishment of Custom Hiring Centres (CHCs) concept be tried out.

4.24 Explore the plausibility of the replicating the MNREGA scheme in other plantation crops as well factoring in the learnings from its implementation in NR sector. The modalities of the scheme be finalized in consultation with stakeholders and also drawing experience of the similar success case studies.
4.25 The State government must pursue with Union Government on the need for establishing voluntary carbon markets, which will pave way for enhanced replanting area, greener and cleaner environment and supplement growers' income thereby supporting the development of plantation sector.
4.26 There should be a Support Price Mechanism extended by the Government for plantation commodities selling below cost of production, similar to the successful Rubber Production Incentive Scheme.

Natural Rubber

4.27 Towards augmenting production, the unique scheme of tapping untapped areas with an intention that no rubber area goes untapped should be promoted. This scheme can be implemented through the Plantation Directorate with the support of Local Self Governments [LSGs]. While framing the scheme, the salient features of successful scheme implemented in Kerala through LSGs viz., the "Total Paddy Mechanization Programme" through Food Security Army" be dovetailed.
4.28 An incentive scheme to nudge the NR growers to adopt rain-guarding scheme should be framed as it will benefit uninterrupted supply of NR during the rainy season.
4.29 The scheme of the Rubber Board to promote intercropping of medicinal plants in rubber plantations with the support of Ayurvedic companies should be scaled up with assistance to growers through State Medicinal Plant Board, depending on the success of the pilot scheme.
4.30 New Genetically modified plants developed by the Rubber Board could be effectively used in Kerala and needs to be propagated for which sanction from the State is required. There should be a clear state policy in this regard.

Coffee

4.31 To improve the production and productivity of coffee the schemes implemented for horticultural crops viz. micro irrigation programme, support for mechanization, quality improvement, support for bio fertilizer, value addition etc., by the Department of Horticulture, Government of Kerala be extended to the Coffee plantations.

Spices

4.32 Towards facilitating exportable surplus of spices crops such as Pepper, Cochin Ginger, Alleppey Finger Turmeric, Nutmeg, the government intervention is required to include implementation of pepper nursery, replanting irrigation programmes in mission mode, promoting area expansion as intercrops viz., Alleppey Finger Turmeric, Cochin Ginger in young rubber plantations and Nutmeg in coconut.

Tea

4.33 Since around 80 per cent of tea bushes in Kerala are in the category of above 50 years, replanting has to be seen in a broader perspective for enhancing field productivity. An element of State intervention and assistance in addition to central scheme will give fillip to the replantation activity in the State.

4.34 There should scheme for financial relief to the tea plantations affected by frost in the tea growing regions of Idukki.

4.35 Kerala Government should take up with Central Government for Special Welfare scheme for tea worker in the State.

2.PROCESSING

Natural Rubber

4.36 Small growers - RSS production model need to be safe guarded by putting a cap on the quantity of low priced TSR imported. Hence, it is suggested that the State Government should champion the cause of small grower-sheet rubber model as it ensures better share for growers in the value chain.

4.37 The State Government should step in by setting up processing and other support facilities for small and marginal growers which would aid in avoiding cumbersome process of sheet making in marginal and small holdings. Importantly, the Government's help in facilitating the setting up of Group processing units would help in making the quality and consistent product and in getting a better share in the value addition.

4.38 There should be a dedicated fund for modernization of Rubber factories in processing and product manufacture, such as a] support for replacement of centrifuging plants, b] rollers and drying machinery, c] solar powered smoke houses and d] effluent based bio-gas plants to generate fuel for drying in rubber factories.

4.39 For identifying new opportunities and innovation of NR in other applications and industries, there is a need to strengthen the R&D department of the Rubber Board by collaborating with institutes of international repute on these areas.

Coffee

4.40 Government should consider incentives for establishment of instant coffee manufacturing unit in the State. This will ensure a remunerative price to Coffee and also create an employment for the youths.

Spices

4.41 A Mission of Spice development is required, which should include setting of better Processing facilities; GAP/Organic Certification and sustainable production. Further, key areas of intervention include support for FPOs/Sanitary and phytosanitary measures for value addition, Brand/ GI promotion. Further, establishment of State-owned Certification Agency, Promoting IPM / IDM /INM in spices is required

Tea

4.42 As orthodox teas are cost intensive, there is a need for financial support, as other-wise it is difficult to enthuse producers to change over. The scheme to augment orthodox production should be complemented by State Government in addition to Tea Board by way of additional funding, as is done in Assam.

C. MARKETING & PROMOTION

General

4.43 Formation of FPOs should be promoted as it would enable growers to come together and reduce the costs through infrastructure sharing and increase profitability through economies of scale thereby moving higher onto value chains.

4.44 The cluster projects under the industry department can be extended to other plantation crops for the production of value-added products. This will pave the way for the production and distribution of value-added products by both small and big farmers.

4.45 Explore the potential of Diaspora Marketing strategy by creating a Kerala Brand for plantation commodities. Kerala has an extensive diasporic network especially in the Middle East. Some of the members of this network has done exceedingly well in the consumer retailing industry owning a chain of hypermarkets not just in the Middle East but across the developing world and also in India. Government of Kerala should enlist the services of these successful business men in the marketing of consumer oriented plantation crops like coffee, tea and spices besides value added non tyre rubber products and rubber wood based articles.

Natural Rubber

4.46 Promote Natural Rubber [NR] bituminization considering the advantages of using rubber modified bitumen in the bituminized roads for the future.

Coffee

4.47 To attract more tourists, a coffee museum in Wayanad district be established depicting the birth of coffee plantations in India (Kerala in particular), the various aspects of coffee cultivation and its management in Indian coffee plantations with audio video visual aids.

4.48 Government of Kerala may provide a partial seed money i.e. Rs.5.00 lakhs especially to women, Schedule Tribe and Schedule Caste youth to establish FOFO-ICH model Coffee Houses in semi urban/rural areas by training unemployed educated rural youths. It will encourage more local youths to become startups/entrepreneurs in the coffee sector and also create employment opportunities to the younger generation.

Tea

4.49 Kerala Government should also look at putting up a modern warehousing and value addition packaging unit similar to the model at Dubai Tea Trading Centre in Jebel Ali. This facility could be in a Special Economic Zone in Kochi, to enable tea estates in Kerala to add value by blending, packaging and branding their teas for exports, which would add premium to the commodity prices. A study be instituted to assess the financial impact of such a project.

4.50 There is a need to increase the per-capita consumption of generic tea and campagin for promotion of tea should be put in place.

D. TRADE RELATED:

General

4.51 The need for more export centric clusters for plantation commodities in plantation growing districts should be taken up and there is a need for new cluster for tea in Ernakulam district and Coffee in Wayanad district.

Natural Rubber

4.52 The higher import of NR beyond the demand/consumption requirements results in dampening of prices and leading to increase in untapped areas. In this context the State Government should bring to the attention of the Union Government including through the forum of "cooperative federalism" the critical importance State consultation before any further changes to import policy.

4.53 State Government can take up the growers' concern on surge in imports, especially being the most aggrieved party since the State accounts for 75% of the production, by approaching Directorate General for Trade Remedies for safeguard measures by levying safeguard duty at 70 % to; a] to protect the livelihood of small producers and b] to protect National Interest of the country by maintaining its natural Rubber Production capacity Intact.

4.54 Measures be taken by the State Government to impress upon the Union to reclassify NR as an agricultural produce under WTO and the permissible import duty be re- looked, especially since some of the competing NR producing countries have better insulated NR in their country by fixing higher bound rates

4.55 Need for periodic revision to SIO Norms for NR in tune with changing technologies should be flagged with the Centre so as to ensure that imported NR with zero per cent import duty does not find its way into domestic market.

Spices

4.56 Prohibit 100% EOUs and units in SEZ from selling black pepper in the domestic market and Restricting pepper imports through a designated port.

ANNEXURES

ANNEXURE-1.1

Plantation Crops in India			
Tea	2010-11	2015-16	2020-21
Production [tonnes]	9,66,733	12,15,580	12,83,030
Consumption [tonnes]	7,87,806	9,94,740	10,79,240
Exports [tonnes]	1,78,927	2,20,840	2,03,790
Imports[tonnes]	19,260	18,430	27,750
Coffee	2010-11	2015-16	2020-21
Production [tonnes]	3,02,000	3,48,000	3,34,000
Consumption [tonnes]	1,08,000	-	23,298
Exports [tonnes]	3,19,892	3,18,196	3,10,702
Imports[tonnes]	45,081	67,674	82,042
Rubber	2010-11	2015-16	2020-21
Production [tonnes]	9,66,733	5,62,000	7,15,000
Consumption [tonnes]	7,87,806	10,19,509	7,03,657
Exports [tonnes]	1,78,927	864	11,343
Imports[tonnes]	1,90,692	4,58,374	4,10,478
Cardamom	2010-11	2015-16	2020-21
Production [tonnes]	10,380	22,000	22,521
Consumption [tonnes]	9,205	16,500	16,021
Export [tonnes]	1,175	5,500	6,500
Import [tonnes]	75	850	*470

Note: * represents the year 2019-20
Source: Compiled by UPASI

ANNEXURE 3.1

Per Day Total Earnings of a Kerala Plantation Worker Aa On 01-10-2021					
SL.No.	Wage Details	Tea	Rubber	Cardamom	Coffee
1	Basic Wages	308.21	388.21	337.21	308.21
2	VDA	106.47	106.47	106.47	106.47
3	Incentive	26.66	102.94		37.88
(A)	Sub Total	441.34	597.62	443.68	452.56
4	Provident Fund	52.96	71.71	53.24	54.31
5	Gratuity	23.66	32.03	23.78	24.26
6	Leave With Wages	22.06	29.87	22.18	22.62
7	Holiday Wages	22.06	29.87	22.18	22.62
8	Weather Protectives	3.75	5.07	3.77	3.84
9	Sickeness Benefit	14.70	19.90	14.77	15.07
10	Child Welfare	12.79	17.32	12.86	13.12
11	Labour Welfare Fund	0.29	0.39	0.29	0.29
12	Minimum Bonus	36.76	49.78	36.96	37.70
13	Leave travel Allowance	5.16	6.99	5.19	5.29
14	Accomodation	24.49	33.17	24.62	25.12
15	Medical	30.14	40.82	30.30	30.91
B	Sub Total	248.82	336.93	250.14	255.14
C	Total Earnings (A+B)	690.16	934.55	693.82	707.70

Source: APK

PROCEEDINGS OF THE MEMBER SECRETARY STATE PLANNING BOARD

(Present: Sri Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) – Constitution of Working Groups on **Plantation Economy-** reg.

Read: -1. Note No.297/2021/PCD/SPB dated: 27/08/2021

2. Guidelines on Working Groups

ORDER No. 951/2021/SPB/I&I/ DD Dated :14/09/2021

As part of the formulation of Fourteenth Five Year Plan, it has been decided to constitute various Working Groups under the priority sectors. Accordingly, the Working Group on **Plantation Economy** coming under industry sector is hereby constituted with the following members. The Working Group shall also take into consideration the guidelines read 2nd above in fulfilling the tasks outlined in the ToR for the Group.

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5. Sri.N. V. Baby, Kerala Karshaka Sangham, Njarakulath, Panikkanpuzhi, Idukki, Mob: 9447218552
6. Sri.G.G.George((Pathanamthitta),Email:,gigigeorgekozhimala@gmail.com Ph..9446113277
7. Dr Sanjith R. Nair, Head (Commodities), UPASI, Coonoor E mai: anjithrnair@gmail.com; Mob. 9443050595

8. Sri S. B. Prabhakar, Chairman, Association of Planters of Kerala,
   Email: apk@planterskerala.com,sbprabhakar@yahoo.com, Ph.0471-2461793

9. Sri M P Cheriyan, Vice President, UPASI, Email:cottanadplantation@cottanad.com
   Ph. 0495 2765093

10. Sri N. Dharmaraj, Retd CEO, Harrisons Malayalam Plantations Ltd,
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11. Sri K. S. Mathew, President, Cardamom Growers Association, Idukki,
    Email: mathewkta2011@gmail.com, Ph..9447421658

12. Sri K N Gopinath, CITU, Ph. 9447085661

Convener

Sri Er Joy N R, Chief, Industry and Infrastructure Division, State Planning Board, chiefindustry@gmail.com, joynr_spb.ker@nic.in, chiefindustry.spb@kerala.gov.in, Mob: 9447000868

Co-Convener

Sri.Arun Shyamnath, Assistant Director, Traditional Industries, Industry and Infrastructure Division, State Planning Board. E mail : arunshyamnath@gmail.com Mob: 9995356100

Terms of Reference

1. To assess the growth of the plantation sector in Kerala over the past decade, with specific reference to the constraints imposed by external trade.
2. To assess the policy measures adopted by the Government of Kerala after the submission of the Justice Krishnan Nair Commission report in 2016.
3. To study the status of productivity of plantations in Kerala and suggest measures to improve productivity through better technology adoption.
4. To chart out the major challenges to be faced by Kerala's plantation sector over the next decade and suggest areas of preparedness.
5. To critically assess the socioeconomic conditions and welfare of plantation workers in Kerala and suggest measures to better include them in plantation development policies.
6. To assess the status of small growers of plantation crops and suggest policy measures to address their specific concerns.
7. To suggest measures to improve research-extension linkages with respect to plantations.
8. To suggest measures to increase value addition and ensure sustainability of plantations.

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowance as per rules if reimbursement is not allowed from Departments.
2. The expenditure towards TA, DA and Honorarium will be met from the following Head of account of the State Planning Board '3451-00-101-93'- Preparation of Plans and Conduct of Surveys and Studies.

(Sd/-)

Member Secretary

To

The Members concerned

Copy to

PS to VC
PA to MS
CA to Member (Sri.V Namasivayam)
Sr. A.O, SPB
The Accountant General, Kerala
Finance Officer, SPB
Sub Treasury, Vellayambalam
Accounts Section
File/Stock File

Forwarded By Order

Sd/-

Chief (Industry and Infrastructure Division)

PROCEEDINGS OF THE MEMBER SECRETARY, STATE PLANNING BOARD
(Present: Shri. Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) –Working Group on **Plantation Economy**- Reconstituted-Orders issued-reg.

Read: 1. This office order of even No. dated 14.9.2021.
2. Decision taken in the Online Working Group Meeting held on 4.10.2021.

ORDER No. 951/2021/SPB/I & I/ DD Dated :08/10/2021

As part of the formulation of Fourteenth Five Year Plan, the Working Group on **Plantation Economy** has been constituted vide paper read as 1st above. As per reference 2nd read above, three Members- (1) Sri. D. Sathian IFS, Secretary, Spices Board, Kochi (2) Dr Chandrappa.K, Deputy Director, Coffee Research Station, Wayanad and (3) Sri.K.P.Vijayakumar, Joint Controller of Liasioning, Tea Board Regional Office, Kochi, representing Commodity Boards other than Rubber Board are newly included in the Working Group, as per decision taken in the 1st sitting of the Working Group.

The Working Group on Plantation Economy is therefore reconstituted as follows:

Co-Chairpersons

1. Dr. Sunil Mani, Director, CDS, mani@cds.edu , mob: 9037096146
2. Dr.K.N.Raghavan, IRS, Executive Director, Rubber Board, exedir@rubberboard.org, mob:9605077050

Members

3. Dr.K.Ellangovan,IAS, Principal Secretary, Industries, prlsecy.ind@kerala.gov.in, prlsecy.norka@kerala.gov.in, Ph:0471-2327499, 2518445,Mob: 9446001265
4. Sri.M.G. Rajamanickam IAS, Managing Director, KSIDC, md@ksidcmail.org, Ph: 0471-2318922/2318189
5. Sri.Santhosh Koshy Thomas, Managing Director, KINFRA, kinframd@gmail.com Ph:.0471-2726585
6. Sri.D.Sathian IFS, Secretary, Spices Board, Kochi, secy.kochi-sb@gov.in, Ph:0484 2333610
7. Dr.Chandrappa.K, Deputy Director, Coffee Research Station, Wayanad, ddrchundale@gmail.com, rcrschundale@yahoo.com, Ph:04936 202256
8. Sri.K.P.Vijayakumar, Joint Controller of Liasioning, Tea Board Regional Office, Kochi, teabordkochi3@gmai.com, Ph:0484 2666523
9. Dr. Tharian George, Scientist (Retd), RRII, thariangk@gmail.com, mob:9496213349
10. Mr N. V. Baby, Kerala Karshaka Sangham, Njarakulath, Panikkanpuzhi, Idukki, mob: 9447218552

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Convener

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(Sd/-)
Member Secretary

To

1. Shri V Namasivayam, Member
2. To all Working Group Members

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PA to MS
CA to Member (Shri V Namasivayam)
Sr. A.O, SPB
The Accountant General, Kerala
Finance Officer, SPB
Publication Officer, SPB
Sub Treasury, Vellayambalam
Accounts Section
File/Stock File

Forwarded By Order

Sd/-

Chief (Industry & Infrastructure Division)
(Convener)