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**GENDER IMPACT OF TRADE REFORMS IN
INDIAN PLANTATION SECTOR:
AN EXPLORATORY ANALYSIS**

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ABSTRACT

This paper examines the potential gender impacts of the trade reforms in plantation agriculture in the emerging context of the two prominent FTAs, viz. the Indo-ASEAN and the proposed EU-India FTA. The focus of the analysis is on three major plantation crops, viz., tea, coffee and rubber, which have distinctions in terms of: (a) predominance of female workers in the organised and unorganised plantation sectors (tea and coffee); (b) preponderance of small and marginal producers (coffee, rubber and tea); and (c) geographical or regional concentration of the production sector (tea in Assam, West Bengal, Tamilnadu and Kerala; coffee in Karnataka, Kerala and Tamilnadu; rubber in Kerala, Tamilnadu, Karnataka and North Eastern Region). While critically reviewing the trajectories of development of the plantation sector especially since the post-colonial period, the paper also explores the potential implications of the Indo-ASEAN and EU-India FTAs on the external trade performance of the plantation sub-sectors and their implications on livelihoods of the small and marginal producers and women workers. The paper then highlights the policy imperatives for revamping the plantation sub-sectors to be more competitive in the emerging context of FTAs which invariably calls for devising more labour and gender sensitive and socially responsive production and management practices in order to face the challenges of apparent labour shortages as well as the dwindling labour support systems. The gender dimension including status and livelihood of women workers forms integral part of the paper, as employment in the plantation sector historically has shown a definitive trend towards increased participation by women even in the productive activities involving physical exertion, like plucking the tea leaves and coffee beans and rubber tapping. Given the critical roles played by women in the plantation production and processing activities, any serious setbacks in the production sector as caused by India's increased engagements with FTAs may further worsen the otherwise deprived socio-economic status of women plantation workers in particular.

1. The Context

The commercial plantation sector in India mainly consists of crops, *viz.*, tea, coffee, natural rubber, cashew and spices, such as cardamom and pepper. Historically, the plantation sector had been a major source of export earnings for the country ever since the colonial times. Tea, coffee and spices had together constituted about 51 per cent (US\$ 281 million) of India's total agricultural export earnings during 1970-71 (US\$ 541 million). In fact, this trend remained more or less undisturbed until the mid 1980s when the share of these three plantation products constituted almost 47 per cent (US\$ 963 million) of India's export earnings during 1985-86. However, the launching of economic reforms in 1991 followed by the vigorous implementation of trade liberalisation policies under the WTO regime has had significant impacts on the export performance of the plantation products. Evidently, following the introduction of trade reforms, India's plantation sector has started experiencing a major crisis especially since late 1990s on two major counts. First, a steep fall in domestic prices has exerted tremendous pressures on the production sector questioning the economic viability and profitability of the plantation crops (Viswanathan, 2007). Second, India's exports of plantation products have declined owing to the loss of conventional markets caused by trade openness and global market integration. There was almost 40 per cent decline in India's tea exports over the last decade from Rs. 2003 crores (1997-98) to Rs. 1253 crores (2007-08). In case of coffee, the average export earnings had declined

by about 29 per cent from Rs.1622 crores during 1996-2001 to Rs.1153 crores during 2001-08. The liberal trade policies also had resulted in a surge in imports of plantation products, especially, natural rubber, due to the removal of quantitative restrictions (QRs) on imports. In value terms, India's rubber imports rose by almost five times from Rs. 521.36 crores during April – December 2000 to Rs. 2273.15 crores during April-December 2007 (Viswanathan and Shah, 2009).

Notably, the two developments stated above had deleterious effects on the plantation sectors on the one hand and the sustainable livelihoods of the plantation based communities on the other. As domestic prices of the plantation products had declined to unremunerative levels, a large segment of the producers both in the organised and unorganised plantation sectors had adopted a series of punitive measures to counter the plantation crisis. The coping mechanisms adopted by the plantation producers have mostly confined to cost saving and labour displacing measures. More specifically, these measures included abandoning of non-viable plantations, discarding of scientific agro-management practices, labour retrenchment, wage cuts, lockouts and non-compliance to the regular tripartite wage negotiations, etc (George and Joseph, 2005; Viswanathan and Shah, 2009). Evidences suggest that the eventualities of the crisis had resulted in permanent closure, abandonment or even disintegration of a large number of medium and small-scale tea, coffee and rubber plantation estates in the country due to the troubled labour relations and the staunch resentments shown by the plantation management. Thus, the plantations which had remained as enclaves of economic dynamism ever since the colonial times have turned into graveyards and abodes of social disharmony and violent conflicts.

The agonies of the lingering plantation crisis in India seem to have been further accentuated by the post-Doha developments specifically leading to the emergence of bilateral and multilateral trade agreements (signed and proposed) between India and the countries in

the South East Asian region as well as the European Union in particular. India is involved in 19 free trade negotiations, which are in various stages of implementation. It is important to note that some of these RTAs/FTAs, especially, the Indo-Sri Lanka FTA (ISFTA), Indo-SAARC agreement, the ASEAN-India agreement and the proposed India-EU FTA may turn out to be most decisive in so far as India's plantation sector is concerned. It is apprehended that such a rapid rise in the number of FTAs and RTAs may turn detrimental to the future prospects of the plantation sub-sectors, comprising large, medium, small and marginal plantation producers as well as rights to work and livelihoods of the plantation workers.

This calls for an understanding of the implications of the ASEAN-India and the proposed India-EU FTAs on India's plantation sector, as these trade agreements entail easy transaction of plantation products while neglecting the crucial aspects of livelihoods of small producers and the women plantation workers in particular. The whole debate has a distinct gender dimension as women producers and workers constitute a vast segment of the workforce in agriculture sub-sectors, especially, plantation workforce in India¹.

As a matter of fact, the already signed ASEAN-India FTA (AIFTA) and the proposed India-EU FTA entail a large number of sectors other than the plantation sector and is expected to have far reaching implications for the competitiveness and trade performance of the country in the integrated global market. Since a trade agreement has manifold impacts on the more vulnerable sections of the plantation dependent communities, major concerns are pertaining to the potential challenges that these trade agreements would pose on the livelihoods and the sustainable plantation production systems in the country.

1. It has been reported that women constitute the largest segment of workforce in case of plantations sectors (47-53%) as compared to growing of crops, such as cotton (47), oilseeds (45%), vegetables (39%), food grains (33%) and sugarcane/ sugar beet (26%) [NSSO, 2007].

1.1. Objectives, Methodology and Data

In this backdrop, this paper tries to examine the potential gender impacts of the trade reforms on India's plantation sector with particular reference to India's major free trade agreements. The important objectives of the paper are to:

- (a) examine the changing dimensions of the structural and employment orientation of the plantation sector and its gender implications in terms of livelihoods of the small and marginal producers and women workers;
- (b) explore the potential implications of the ASEAN-India and the proposed India-EU FTAs on the external trade performance of the plantation sub-sectors and their impacts on livelihoods of the small and marginal producers and women workers; and
- (c) discuss the policy imperatives emerging from the analysis, with respect to competitiveness and sustainability of the plantation systems and livelihoods of the dependent communities.

The focus of the paper is on three major plantation crops, *viz.*, tea, coffee and rubber, which have distinct features in terms of: (a) predominance of female workers in the organised and unorganised plantation sectors (tea and coffee); (b) preponderance of small and marginal producers (coffee, rubber and tea); and (c) geographical or regional concentration of the production sector (tea in Assam, West Bengal, Tamilnadu and Kerala; coffee in Karnataka, Kerala and Tamilnadu; rubber in Kerala, Tamilnadu, Karnataka and North Eastern Region).

The gender dimensions including status and livelihood of women workers forms an integral part of the study, as employment in the plantation sector historically has shown a definitive trend towards increased participation by women even in the crucial productive

activities involving physical exertion, like plucking the tea leaves and coffee beans and rubber tapping. Given the important roles played by women in the plantation production and processing segments, any serious setback in the production sector as caused by the increased integration of the plantation sectors with the global market and the subsequent engagements in the FTAs/ RTAs might further worsen the otherwise deprived socio-economic status of women plantation workers in particular.

The paper uses historic data/ information pertaining to various aspects, *viz.*: the structural changes in the plantation sector, trends in employment and the changing gender roles, gender differences in wages and earnings, working conditions and status of women, etc. An important source providing data on the crucial aspects of employment, wages, composition of the workforce and access to social security and welfare provisions in the plantation sector is the periodic Occupational Wage Survey (OWS) Reports² published by the Labour Bureau, Government of India. Besides, the paper uses secondary data on trends in area, production and trade in the plantation crops as published by the Directorate General of Foreign Trade (DGFT) and other important sources, like the Economic Survey (GOI), Foreign Trade Statistics as published by the Reserve Bank of India (RBI), the Centre for Monitoring Indian Economy (CMIE), and the trade data as provided by the concerned commodity boards, *viz.*, Tea Board, Rubber Board, Coffee Board, and other sources, such as WTO, Indiatat (www.indiastat.com), UNCTAD, FAO, etc.

2. Occupational Wage Survey (OWS) is a periodic assessment made by the Labour Bureau, Government of India to generate reliable and accurate data on occupational wage rates and earnings of workers engaged in manufacturing, mining and plantation industries. The Labour Bureau thus far has published five rounds of the OWS reports, *viz.*, First Round (1958-59); Second Round (1963-65); Third Round (1974-79); Fourth Round (1985-92); Fifth Round (1993-2001). The Sixth Round (2002-06) was published in 2008.

The paper also uses empirical data as available from the studies by the Tea Board (2001, 2003), Labour Bureau (2009), etc., covering the crucial aspects such as socio-economic status and gender concerns and socio-economic and the sustainable livelihood challenges in Indian plantation sector. In this regard, more useful insights are also drawn from a recent study (Viswanathan and Shah, 2009) examining the challenges facing the Indian plantation sector in the context of liberalisation and trade reforms.

The paper is organised into five sections, including introduction and conclusion. Section 2 provides a brief account of the development, growth and structural concentration that have taken place in the case of tea, coffee and rubber plantations in India. It also discusses the impacts of the structural transformation on the emergence of gender dominated occupational structure, the extent of employment generated by the plantation sector. Section 3 examines the major implications of trade reforms on the performance of the three plantation commodities and the effects on employment of women, working conditions and the socio-economic status and welfare of women in plantations. Section 4 discusses the potential challenges and gender impacts emerging from the free trade agreements with particular reference to the most decisive FTAs, *viz.*, India Sri Lanka FTA (ISFTA), ASEAN-India FTA (AIFTA) and the proposed India-EU FTA (IEUFTA). Section 5 concludes the paper with a brief discussion on the policy imperatives emerging from the analysis.

2. Development of Plantations in India: Structural and Regional Concentration of Production and Gender Dominated Occupational Structure

The plantation industry may be regarded as one of the oldest organised industries in India with significant contributions towards the country's growth in trade and employment ever since the second half of

the 19th Century. The development of plantations³, such as coffee, tea, rubber and spices involved massive inflow of European (prominently British) capital and import of technology and the production was mostly confined to large-scale plantation units, called ‘estates’. These plantation estates were developed under a regimented or captivated labour regime which enabled the European planters to commit an uninterrupted supply of plantation products to the European markets.

The plantations so developed were unique in many respects. First, achieving economies of scale in production was the prime motive and this paved the way for two simultaneous developments, *viz.*: (a) development of plantations only in regions which were agro-climatically suitable for growing the crops; and (b) development of a vast reservoir of captive labour force. Second, plantations were developed with a definite gender bias in its occupational structure. This gender bias was manifest in terms of a preferential demand for women workers particularly in the case of tea and coffee plantations (Konings, 1995). The reasons that women workers are more docile and cheaper and their nimble fingers make them most suited for plucking the tea leaves/ coffee beans as compared to their male counterparts. Thus, the plantations from the very beginning depict a definite gender bias in its occupational structure. Women are also preferred over men in case of operations, such as pruning the tea leaves, weeding, forking, draining, processing, etc. The work of plucking leaves was largely assigned to women, though men also worked during times of shortage of women.

The third important aspect of the plantations is its unique system of employment of family as a unit. Logically, this was to ensure labour

3. According to the Plantation Labour Act (1951) the word ‘plantation’ applies to any land used or intended to be used for growing tea, coffee, rubber, cinchona or cardamom which measures 5 ha. or more and on which 15 or more persons are employed or were employed on any day of the preceding 12 months. The central and state legislations concerning minimum wages, industrial disputes, provident fund, gratuity, bonus, etc., are also applicable to the labourers in the organised sector.

retention in the plantations and prevent workers from leaving. The family based recruitment system had turned advantageous to the planters as they are able to attract the family members, especially children⁴ (below 14 years) and female members to work on the plantations as low waged casual workers. Fourth and most important aspect relate to the demographic and socio-economic profile of the workforce in plantations. Vast sections of the plantation workforce are either immigrants or tribals and are disadvantaged in terms of lack of access to resources, such as land, education, better living conditions and sanitation facilities. Invariably, all these aspects as described above, have a definite gender dimension, as women constitute the largest segment of the workforce.

2.1. Structural and Regional Concentration

As stated, the European planters had established commercial plantations of coffee and tea as early as the first quarter of the 19th Century. Coffee was the first plantation crop to be developed during early 1820s, followed by tea plantations in Assam, North Bengal and Southern India by mid 1840s; whereas, the first commercial rubber planting was done in Central Kerala in 1902. During the colonial period, the native rulers have promoted the expansion of plantation crops through free land grants and other supports favouring the planters' interests.

The plantation expansion policies received greater impetus in the post-Independence period when the Government of India and the respective state governments have initiated various policy and institutional support programmes to protect the planters' interests. One of the important measures has been the establishment of various institutional bodies aimed at the systematic development and expansion of the plantation crops. These institutional agencies have been set up

4. Children (even in the age of 7-8 years) were given light work, such as hoeing, removing creepers and parasites from bushes, etc. Men were engaged in activities needing physical exertion, which included the maintenance and upkeep of the estate, pruning, draining, forking and the like (Ravi Raman, 2002).

through various enactments of the Indian Parliament and are under the administrative jurisdiction of the Ministry of Commerce and Industry, Government of India. These bodies, popularly known as ‘commodity boards’, function as ‘commodity-specific promotional agencies’ and include Coffee Board, Tea Board and the Rubber Board, which were established in 1942, 1953 and 1954 respectively. The major functions of these agencies are to act as catalysts in the process of area expansion, production and productivity enhancement through various R&D and institutional support measures, including subsidy, technical, extension and marketing support (George *et al.*, 1988; Viswanathan and Shah, 2009).

The proactive policy and institutional interventions by the Commodity Boards on the one hand, and the socio-economic and political development processes that followed on the other, had resulted in the structural and geographical concentration of the plantation sector in the country. The structural changes have resulted in the emergence and growth of the dominant smallholder sector, which currently occupy 85-90 per cent of the production of coffee and rubber, though tea still remains to be an exception. Given that the growth of plantations needed conducive agro-climatic environs, like adequate rainfall, elevation, soil suitability, etc; the three plantations showed high degree of geographical concentration. Accordingly, tea plantations are mostly concentrated in North and North Eastern states of West Bengal, Assam, Tripura, and the South Indian states of Tamilnadu and Kerala. Similarly, coffee plantations are concentrated in the Southern states of Karnataka, Kerala and Tamilnadu. Rubber plantations also show definite pattern of geographical concentration in the traditional regions of Kerala, Tamilnadu, Karnataka and the non-traditional regions of North Eastern states, especially, Tripura, Assam and Meghalaya.

Table 1 presents a synoptic view of the important features of the three plantation sub-sectors in terms of the structural orientation and their status in the global plantation industry.

Table 1: Salient features of India's plantation sector (2008-09)

	Characteristics	Tea	Coffee	Rubber
1.	Harvested area ('000 ha)	578.46	388.19	661.98
2.	Share of smallholdings (%)	28.08	74.64	89.94
3.	Production ('000 tons)	980.82	290.00	864.50
4.	Share of smallholdings (%)	26.25	70.00	93.11
5.	Domestic consumption as % of production	81.77	34.35	101.89
6.	Exports as (%) of domestic production	18.23	63.44	5.43
7.	Share in global harvested area (%)	19.74	3.39	7.65
8.	Share in global production (%)	23.74	3.14	9.65
9.	Share in global exports (%)	12.29	3.22	1.16

Source: Estimated from sources, viz: FAO, Rubber Board, Tea Board, Coffee Board, etc.

The Table highlights some interesting aspects of the three commodities, which may be described as follows. First, there has been dramatic transformation in the ownership pattern in the plantation sector over the past 4-5 decades, mainly in the case of coffee and rubber plantations and this structural change was characterised by the dynamic growth of the smallholder sector against the decline of the large plantations. Accordingly, the smallholder sector has emerged as the major stakeholder in coffee and rubber sectors with dominant shares in harvested area (75% and 90% respectively) and production (70% and 93% respectively). Second, tea plantations did not undergo such a structural transformation⁵ favouring the smallholders and hence, the large estates sector continues to have its dominance in area (72%) and production (80%) in case of tea.

5. It is important to note that the number of smallholder tea plantations occupy almost 98 per cent of the total number of plantations in India. But, their relative shares in area and production have been very low in comparison to the large scale plantations.

Third, rubber sector is distinct in terms of its inward market orientation. This is evident from the dynamic expansion of the domestic rubber industry dominated by automotive manufacturing industry with domestic consumption levels always exceeding the production capacities. On the other hand, tea and coffee sectors have been historically integrated with the global market as evident from the significant shares in exports of these two products in domestic production (18.2% and 63.4% respectively). Fourth, among the three plantation sectors, tea has a major stake in the global scale, as India occupies almost 20 per cent of the global tea harvested area, with 24 per cent in the global tea production and 12.3 per cent in global tea exports. Though rubber has significant shares in area (7.65%) and production (8%) at the global level, it's share is very insignificant in global exports (below 2%). Similarly, though India exports a major share of its coffee output, its status in the global scenario is very insignificant as the country's share in area, production and exports at the global level has been very low (3.39, 3.14 and 3.22% respectively).

Along with the structural concentration as discussed above, the plantation crops also evinced a strong regional/ geographical concentration in area and production due to the specific agro-climatic conditions required for growing the crops (Table 2). For instance, the five states occupy more than 96 per cent of the area and 98 per cent of production of tea and 91 per cent of area and 97 per cent of production of rubber. In case of coffee, three states together account for 93 per cent of area and almost 99 per cent of production.

Among the states, while West Bengal has the largest share in area and production of tea (55 and 51% respectively), Kerala has the highest share in area and production of rubber (85.43 and 96.62% respectively). Coffee shows a distinction here as area and production are highly concentrated in Karnataka (60% and 73% respectively), followed by Kerala (25% and 19%). The three states together account for 93 per cent of area and almost 98% of coffee production.

Table 2: Distinct features of Tea, Coffee and Rubber plantations in India, 2008-09

Descriptives	Kerala	Tamilnadu	Karnataka	West Bengal	Assam	All India	Five states (%)
Area (% share/'000 ha)							
Tea	6.38	14.31	0.38	20.21	55.07	578.46	96.34
Coffee	24.57	8.81	59.84	—	—	388.19	93.22
Rubber	75.08	2.92	2.75	0.09	4.59	661.98	85.43
Production (% share/ '000 MT)							
Tea	6.55	16.21	0.53	24.50	50.80	980.82	98.59
Coffee	21.74	5.51	70.79	—	—	290.00	98.04
Rubber	89.40	2.92	2.75	0.62	0.93	864.50	96.62

Source: Estimated based on data from Tea Board, Coffee Board and Rubber Board.

2.2. Plantations and the Gender Differentiated Employment Structure

The structural as well as regional concentration of the production sectors as mentioned above underlie two important aspects having greater implications for the livelihoods. First, the dominance of the small and marginal producers especially in case of coffee and rubber signifies that these crops are potential sources of livelihoods to millions of small and marginal producers, who are geographically concentrated. Second and most important, these crops provide direct employment to millions of workforce who are also very much geographically confined.

As observed, the colonial planters had developed a captive or indentured labour force as attached to the plantations and this eventually paved the way for creating a gender dominated employment structure. The colonial planters never recruited local labour from the plantation areas even if it was available. Because, local labour were thought to have strong bargaining power for higher wages and thereby adversely affecting the profits. Hence, the planters mostly favoured import of cheap labour (immigrant workers) from other areas and to settle down in the plantations. These immigrant labourers were indentured and had no other means of livelihood, except working on the plantations. Moreover, the planters considered the family as a unit of recruitment which encouraged families rather than individuals to migrate and settle down in the plantations. The entire family- male, female and children – worked at low wages as decided by the planters. This family based recruitment also worked well as labour could be reproduced and thereby solving the future employment problems. That they could settle in the ‘labour lines’ in the plantations enthused majority of the immigrants to abandon the lands and other assets they had at the source of origin.

Historically, the occupational structure in plantations has been sub-divided into three major categories, viz: a) plantation labour, b) field workers and c) supervisory/ managerial staff. Nevertheless, plantation labour constituted the dominant category with an absolute

share of 95 per cent in the case of tea and 94 per cent in the case of coffee and rubber plantations. More specifically, the category of plantation labour mostly comprised of the manual or production workers, who are conventionally designated as tea pluckers, coffee bean pickers and rubber tappers respectively in tea, coffee and rubber plantations.

As production in tea plantations continue to be dominated by the estate sector and tea plucking being a women-preferred job, the proportion of women employment is logically very high in tea as compared to coffee and rubber. Gender bias in coffee is evident as women continue to dominate the harvesting operations along with their strong presence in the routine management of coffee plantations. Nevertheless, the pattern and intensity of women employment differs in comparison to tea as a major chunk of coffee is grown by smallholders. In case of rubber, the gender bias is not that pronounced as rubber tapping involves some amount of physical exertion to tap the rubber tree. Since most of the rubber is produced by smallholders, the extent of women employment is also determined by the availability and willingness of women family and women hired labourers. However, in rubber plantations, women account for almost half of the total rubber tappers as well as about 70 per cent of the general workers engaged in weeding and other activities, such as fertiliser application, soil conservation, etc. The gender differentiated occupational structure in the three plantations is presented in Table 3. The Table shows that women occupy the largest segment of the plantation (production) workforce in tea (58%) and coffee (57%) as compared to organised rubber plantations (41%).

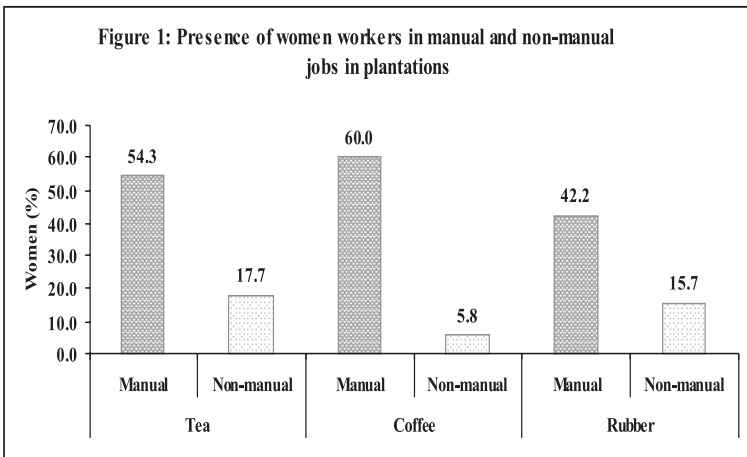
On the other hand, the share of women workers in other activities seems to be lower in tea (35%) and coffee (44%) and slightly higher in the case of rubber. It also emerges that women workers are increasingly engaged in manual works in the plantations than non-manual employment, especially in tea and coffee plantations (Figure 1). Though rubber tapping tends to be male dominated activity, the plantations

Table 3: Gender differentiated occupational structure in plantations

Nature of work	Tea Plantations (%)		Coffee plantations (%)		Rubber Plantations (%)	
	Male	Female	Male	Female	Male	Female
1. Plantation labour*	41.0	58.0	40.0	57.0	59.0	41.0
2. Others@	65.0	35.0	55.0	44.0	48.0	52.0
3. Overall	54.0	46.0	44.0	55.0	58.0	42.0

Note: * Relates to tea pluckers, coffee bean collectors and rubber tappers respectively. @ Includes supervisors, watchman, drivers, general workers, etc.

Source: Estimated from Labour Bureau, (2006, 2009).



normally function with an arrangement that women workers assist the male rubber tappers by collecting the latex. A large segment of women also engage into tapping as revealed from Table 3.

2.2.1. Employment and Livelihood Dependence on Plantations

As discussed, plantations have immense potential as sources of livelihood and employment to the planters, especially, small and marginal producers as well as plantation workers, a major section being women workers. Currently, the three plantation crops support a vast segment of about 3.7 million population comprising large, medium, small and marginal producers as well as organised and unorganised plantation workers (Table 4).

As evident, the three plantation sectors together support livelihoods of about 1.43 million households of planters/ small producers as well as 2.25 million plantation workers in India. Among the three plantations, rubber has the major share (75%) in terms of provision of livelihood support to the producers (1.07 million) while tea has the highest contribution (55.9%) in terms of employment (1.26 million). In terms of women employment, tea has the largest share (58%), followed by coffee (57%) and rubber (41%) with about 52 per cent at the aggregate level.

Table 4: Employment and livelihood dependence on plantations in India

Plantation	Planters/ small producers		Plantation workers		Total population		Women workers (Lakh nos.)
	Lakh nos.	% share	Lakh nos.	% share	Lakh nos.	% share	
Tea	1.43	9.97	12.60	55.92	14.03	38.02	7.31 (58)
Coffee	2.21	15.37	5.87	26.07	8.08	21.90	3.35 (57)
Rubber	10.73	74.67	4.06	18.01	14.79	40.08	1.66 (41)
Total	14.37	100.00	22.53	100.00	36.90	100.00	11.72 (52)

Note: Figures in parentheses indicate the share of women in total workforce.

Sources: Estimation based on data from Tea Board, Coffee Board and Rubber Board sources.

The employment potential of plantations is much larger if we consider the indirect employment generated through ancillary activities and plantation based processing and manufacturing activities. The latest available estimates on dependence on the plantations sector indicate that about a little over 4.39 million producers and 20.2 million plantation based population derive their livelihood from ancillary activities associated with production, processing, value addition and marketing of plantation commodities⁶ (GOI, 2007). Given that women occupy major share among the plantation workers as well as small producer households, it may be observed that the three plantations have greater gender impacts in terms of employment, livelihoods and welfare of the households.

3. Impact of Trade Reforms on Plantation Sector

In this section, we discuss a great deal about the major impacts of the trade reforms on the plantation sector and its implications on gender status and livelihoods. At the outset, it may be observed that one of the major outcomes of India's engagements with the WTO has been the enunciation of trade reforms by which the country's economy has been under severe pressure to open up its commodity markets, especially the plantation sectors and adopt stringent trade reform measures in terms of removal of tariff and non-tariff barriers for facilitating easy market access for other countries.

3.1. Price Crash and Impact on Trade

The impact of the trade reforms on India's plantation sectors has become much more evident especially since the late 1990s when there was a drastic decline in the domestic and international prices of tea,

6. The employment potential of plantations is also to be reckoned in terms of the employment generated by the plantation related processing as well as manufacturing industries in each case. While women workers account for about 20-25 per cent of the total workforce employed in tea processing/manufacturing industries, their relative share in rubber is about 8-10 per cent.

coffee and rubber. The price decline though was an immediate effect of the market imbalances (over supply and demand deficit), it coincided with the policy changes leading to removal of tariff and non-tariff barriers as well as quantitative restrictions (QRs), especially in the case of rubber. The outcome was a major crisis in the plantation sectors which invariably affected the viability and sustainability of the commodity sectors and the livelihoods of millions of plantation dependent communities.

In case of tea, the domestic producer prices (as expressed in US dollars) had declined during the 1990s by about 14 per cent from \$0.213 per kg (1991) to \$0.184 per kg (2000). Further, the average tea prices reported for India during the 15 year period (1991-2005) was \$0.206 as compared to Kenya (\$1.589/kg), China (\$1.285/kg), and Sri Lanka (\$1.19/kg). This underscores that the trade reform driven crisis had caused a severe setback on tea prices in India. More importantly, the reported prices in India were hardly 13-17 per cent of the prices that prevailed in the three major tea producing countries (Viswanathan and Shah, 2009). In case of rubber, there was a steep decline of almost 42 per cent in domestic prices during the six year period, 1995-96 to 2000-01. That is, rubber prices (RSS IV) declined from Rs. 52 per kg during 1995-96 to as low as Rs. 31 during 2000-01. Similarly, the prices that coffee growers received declined by about 53 per cent from the peak of 84.7 US cents per lb during 1995 to 39.6 US cents per lb during 2002. The average coffee prices as received by the growers have been the lowest at 74 US cents per lb during the current decade (2000-07) as compared to the 1980s (80 US cents per lb) and 1990s (81 US cents per lb).

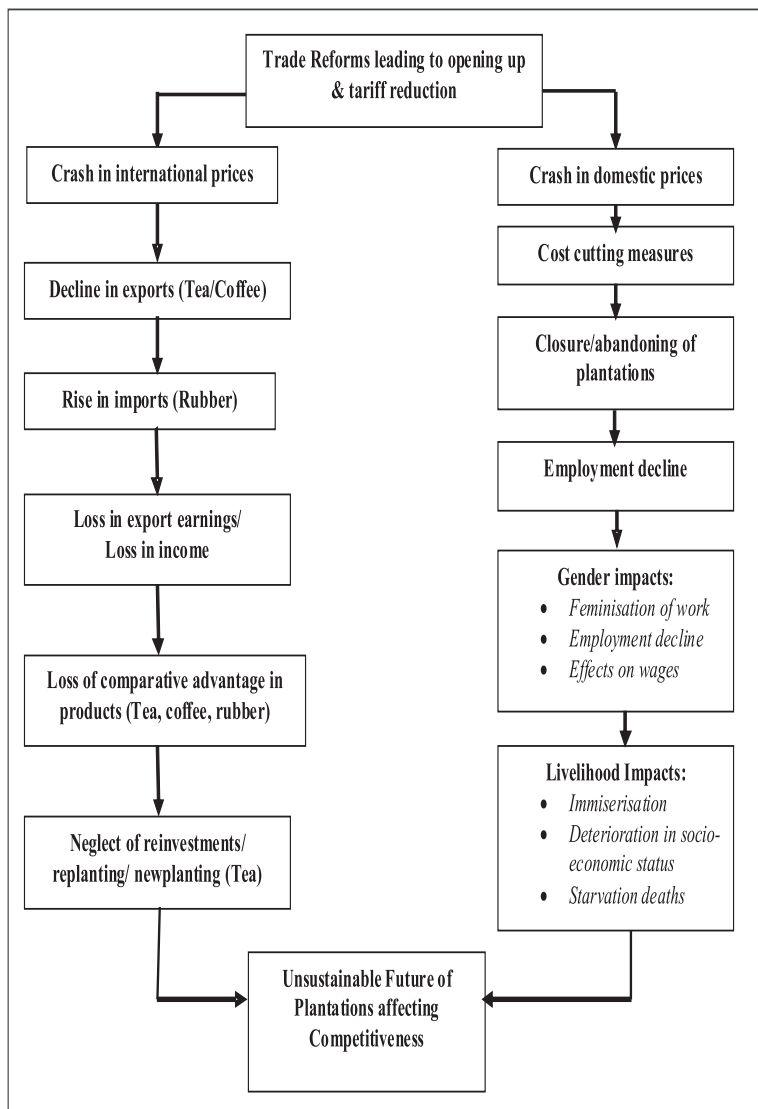
Thus, the immediate impact of the launching of trade reforms has been a drastic reduction in prices as received by the planters and small producers in all the three plantations. The magnitude of price decline was so severe that the prices received by the producers were far below the cost of production. As the unremunerative prices affected the

profitability⁷ and the viability of the plantations, the large scale planters in particular vehemently adopted various cost cutting and prudent financial management measures to overcome the crisis. Some of the important measures thus adopted by the tea planters included retrenchment of labourers, abandoning or lockouts of plantations, lowering or non-revision of wages, cutting down on the provisions of the various labour welfare measures, etc (George and Joseph, 2005). The crisis management strategies adopted by the planters have mostly affected the plantation workers, especially, women workers. This is because, an overwhelming majority of the planters have always been complaining (even during periods of prosperity of plantations) that maintaining the large labour force and the provisions for wage and non-wage benefits and social protection measures offered to the workforce as per the Plantation Labour Act 1951 as the two critical factors upsetting the profitability and sustainable economic performance of plantations.

In reality, the eventualities have created a vicious circle by which decline in commodity prices has adversely affected the trade performance which in turn affected the profitability and viability of plantations in the context of trade reforms. On the other hand, the crisis-management strategies adopted by the planters and small producers have caused serious impacts on the production sector, leading to employment decline as caused by labour retrenchment, abandoning of plantation operations, as well as decline in production and productivity. The major impacts of the trade reforms in the plantation sector and the resultant opening up and tariff reduction as experienced through the crisis which had serious implications for the sustainable future of the Indian plantation sector may be elaborated as shown in Chart 1.

7. It has been found that during the late 1990s and after, the cost of tea production has been higher than the domestic tea prices by 20-25 per cent as compared to significant levels of profit as reported from Indonesia (64-67%), Sri Lanka (25-31%) and Bangladesh (7-19%).

Chart 1: Impact of Trade reforms and the resultant crisis in plantations in India



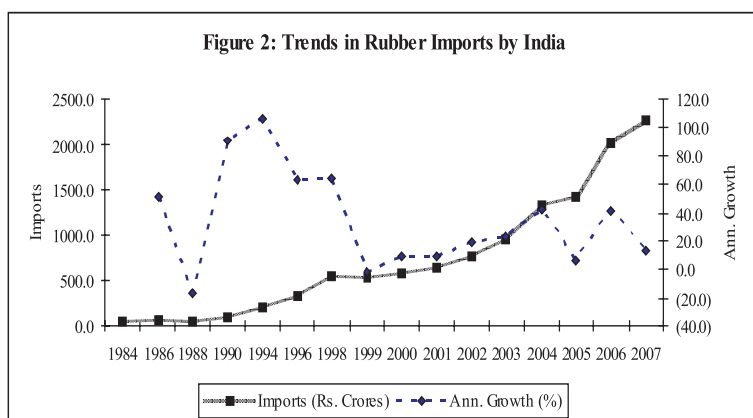
As stated, the crisis began with a crash in both domestic and international prices of the plantation commodities, which caused adverse impacts on trade performance, employment and livelihoods in case of three plantations. In what follows, we discuss the major casualties in the three plantation sectors as caused by the crisis in the event of the trade reforms.

The immediate effect of the decline in prices in the international markets has been a persistent decline in India's exports of tea and coffee. This was evident from the declining trend in export earnings. For instance, India's tea exports had declined from its peak levels of US\$ 538 million during 1998-99 and the trend continued until recent years. Similarly, export earnings from coffee started declining after 1997-98 from US\$ 456.4 million and the export earnings remained at lower levels during most of the years that followed.

It is important to note that India has been losing annual export earnings worth US\$ 138.4 million in case of tea and US\$ 139.6 million in case of coffee during the past decade of trade reforms. The decade also witnessed a cumulative loss in export earnings to the extent of US\$ 1396 million in case of coffee and US\$ 1246 million in case of tea. The case of rubber has been much more precarious, as India is a net importer of rubber and rubber products. The trade reforms induced tariff reduction and removal of quantitative restrictions (QR) have resulted in a surge in imports of raw rubber and rubber products through duty-free channels under provisions of the advance licensing scheme. Resultantly, there was more than fourfold increase in India's imports of rubber products, including natural (raw) rubber from Rs. 521.36 crores during 2000 to Rs. 2273.15 crores during 2007 as also evident from Figure 2.

As evident from Figure 2, India's imports of rubber and rubber products have risen especially since late 1990s, though with significant inter-year fluctuations. It may be interesting to note that much of these

rubber imports have taken place through duty-free channels as an incentive for export of rubber products. Reportedly, almost 96 per cent of the total quantity of rubber imported in the 1990s was routed through the duty-free channels; especially through the advance licensing scheme (ALS) (George *et al.*, 2002). The trade policy changes in the post-QRs regime thus paved the way for increased imports of rubber and rubber products⁸ into India.



3.2. Employment Decline and Feminisation of Work

While the decline in prices in the international markets has affected India's trade in plantation products, the decline in domestic market prices had its pernicious impacts on the production sector, employment and livelihoods of the plantation dependent households. Both planters in the organised sector as well as small producers have responded

8. Currently, there are six different channels that enable the rubber products manufacturers to import rubber and rubber products. These channels facilitate imports through: a) open channel; b) Bangkok agreement; c) duty entitlement passbook scheme (DEPB); d) duty exemption entitlement certificate (DEEC) or advance license scheme (ALS); e) duty free replenishment certificate (DFRC); and f) scheme for 100 per cent EOUs and units in SEZ/EPZ (Peter, 2005).

vehemently to the crisis by adopting stringent measures to maintain the viability of production units. In the process, they adopted various cost saving and labour displacing measures such as dilution and even discarding of scientifically recommended agro-management practices, labour retrenchment, lockouts and resistance to routine tripartite wage negotiations, etc (Viswanathan and Rajasekharan, 2001; George and Joseph, 2005). Evidences also suggest that a large number of medium and small-scale tea estates were closed in the major tea growing regions in the country due to the crisis and strained management-labour relations. In this regard, it may be noted that besides the dilemmas of the big planters and the smallholder producers, the issues of livelihoods of the labourers, especially, women workers and their employment status, wage and non-wage benefits and social security measures become serious considerations needing careful scrutiny and analysis.

There was significant decline in employment in the three plantation sectors after mid 1990s as evident from Table 5.

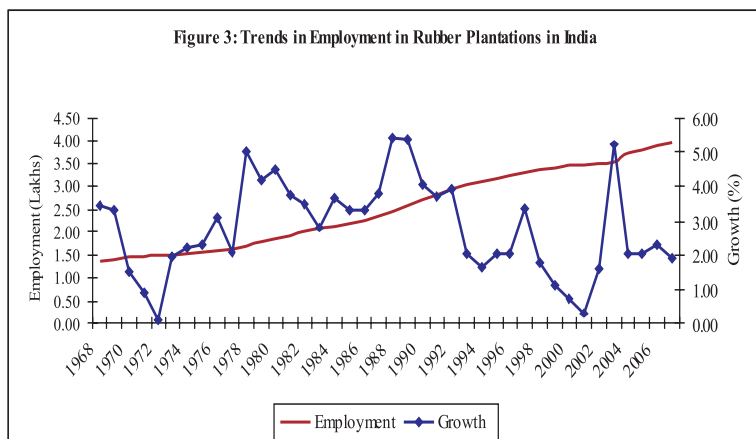
Table 5: Trends in employment in plantations and share of women

Period	Average daily employment (Lakh nos.)			Share of women (%)		
	Tea	Coffee	Rubber	Tea	Coffee	Rubber
1990-95	11.69	3.08	2.96	48.73	53.81	39.60
1996-02	8.85	2.85	2.36	50.26	52.98	37.48
2002-07	6.42	2.47	3.43	54.75	56.76	43.67
% change (1990-02)	-24.28	-7.44	-20.18	3.15	-1.53	-5.36
% change (2002-07)	-27.44	-13.27	45.18	8.93	7.14	16.53

Source: Estimated from Tea Board, Coffee Board and Rubber Board statistics.

For instance, the average daily employment reported in tea plantations had declined by about 24 per cent from 11.69 lakhs during 1990-95 to 8.85 lakhs during 1996-02. Employment in tea plantations further declined by 27 per cent during the next sub-period, ie. 2002-2007. The post-crisis period also witnessed tremendous fall in employment in coffee plantations, the decline being 7.4 and 13.3 per cent respectively during the two sub-periods.

Whereas, in the case of rubber, while the first sub-period witnessed a decline in employment by 20 per cent, the latter period saw a rise in employment due mostly to the consistent rise in rubber area expansion under the smallholdings sector. Nevertheless, though employment increased in rubber sector in absolute terms, the rate of growth in employment has been on the decline over time. For instance, the average annual growth in employment had declined from 3.95 per cent during the 1980s to 2.57 per cent during the 1990s and further to 2.01 per cent during the last decade. The growth in employment had slowed down immediately after the crisis, though there was a steep rise during 2004. The maximum growth in employment has been reported during the



period between 1988 and 1990, beyond which, growth in employment has experienced significant deceleration in rubber.

Results of an empirical analysis covering 40 organised rubber plantations also substantiated the drastic reduction in employment in the estate sector. It was observed that the employment of general workers in rubber plantations had declined by about 40 per cent from 1.59 million in 1998 to 0.95 million in 2006. Subsequently, the employment of rubber tappers declined by 25 per cent from 0.81 million to 0.6 million during the same period (Viswanathan and Shah, 2009). This finding further corroborates that the rise in employment at the aggregate level has been mostly stimulated by the smallholder expansion.

3.3. Specific Gender Impacts

In what follows, we elaborate on the specific impacts of the trade reform induced crisis in the plantations on the status and livelihoods of the women plantation workers. As evident, the employment decline had resulted in increased ‘feminisation’ of work in the plantations. Though employment of women in large numbers is the distinct feature of the plantations, the increasing share of women in the workforce may be seen as a cumulative outcome of deliberate choice by the planters for women workers as well as the efforts to compensate for the reduction of male workers due to the massive retrenchment of permanent male workers. Table 5 clearly brings out this trend. It shows that the share of women workers in tea plantations had increased from 49 per cent during 1990-95 to 55 per cent during the sub-period 2002-07. In coffee plantations, share of women workers increased from 54 per cent to 57 per cent and in rubber, the share of women had increased from 39 per cent to 44 per cent between the sub-periods.

The increasing trend of feminisation of work has also been found spreading fast in the plantation sectors across the major plantation

Table 6: Trends in increasing feminisation of employment in plantations in Indian states

State	Tea Plantations			Coffee Plantations			Rubber Plantations		
	1998	2009	% change	1998	2009	% change	1998	2009	% change
Assam	47.5	56.7	19.4	—	—	—	—	—	—
Karnataka	51.6	67.4	30.7	52.1	58.0	11.5	52.5	58.4	11.3
Kerala	55.6	61.5	10.5	57.1	59.1	3.6	33.3	46.7	40.1
Tamilnadu	44.5	57.3	28.9	57.3	60.3	5.3	25.4	45.4	78.7
Tripura	—	—	—	—	—	—	23.1	18.7	-19.0
West Bengal	51.0	57.1	12.0	—	—	—	—	—	—
India	48.9	56.7	16.0	55.9	58.4	4.5	33.6	44.6	32.7

Source: Estimated from Labour Bureau, GOI (2006, 2009).

growing states in the country as evident from Table 6. The analysis shows that the increase in feminisation of work has been more rapid in rubber and tea plantations in which the share of women workers had increased by 33 per cent and 16 per cent respectively during the last 10 year period. Though the trend has been more or less similar across plantations and states, the case of rubber is quite interesting, as the extent of women work participation has been historically lower in rubber plantations.

It may be observed that the employment reduction at the aggregate level and the subsequent increase in the share of women workers has been one of the crucial steps adopted by the planters to restructure the plantation operations.

The process of restructuring has involved an array of disquieting developments as reported from almost all plantation regions in the country. Such developments included: a) lowering, stagnation, deferment and or non-revision of wages; b) non-provision of bonus; c) increase in workloads, i.e., a hike in the minimum quantity of tea leaves/coffee beans to be collected and increase in tapping task (number of rubber trees to be tapped); d) curtailment of non-wage or extra-wage benefits and incentives; e) non-compliance to provisions of welfare measures as stipulated by the PL Act, 1951; f) temporary closure of cresche, health centres; g) non-maintenance of labour lines, etc to mention the most pressing needs affecting the status and livelihoods of women plantation workers in particular. As a matter of fact, the extent and degree of imposition of these measures varied across plantations depending on the extent to which the planters wanted to keep their profit margins intact.

Nevertheless, it may be observed that the crisis has turned out to be a 'blessing in disguise' for a major segment of the plantation companies who have strategically implemented a series of punitive measures leading to a drastic cut in the wage bills and reduction in employment

of plantation workers. This has been further evident from an analysis of financial performance of the Tata Tea Company for the post-crisis period. It showed that the Company had cut its labour force to the extent of 40 per cent leading to a significant reduction (27%) in the compensation paid to the employees, especially, women workers, who constituted almost 65 per cent of its workforce. A similar analysis about the Harrison and Malayalam Plantations, which grow both tea and rubber, indicated that the Company reduced its expenditure on workers' in the post-crisis period (Viswanathan and Shah, 2009).

3.3.1. Dwindling Social Security Measures

In reality, the adverse trade impacts as revealed by the crisis cause greater concerns about the social security as well as sustainable livelihoods of the plantation workers especially, women. Even otherwise, the socio-economic status of women workers in the plantation sub-sectors continues to be a matter of serious concern, as a vast majority of them are tribals and or are migrants and hugely suffer from landlessness, illiteracy, widow-hood, ageing, etc. These features relating to the women workforce and dependent households underscore that this large segment of the population are most vulnerable to the socio-economic disturbances caused by poverty, lack of access to resources, ill-health, under-nutrition, etc to mention a few. This being so, it is highly likely that the crisis as experienced in the plantation sector would have destabilized the livelihoods of the women workforce in particular and their dependent households. Moreover, as plantations are situated in isolated and remote areas, there are no alternative means of supporting their livelihoods. Obviously, a loss in employment due to retrenchment or closure of plantations in this regard would have resulted in abject poverty and despair to these workers, which is grossly under-reported.

Other than retrenchment or closure of plantations⁹, the tea planters also increasingly adopted a new strategy of sub-dividing and fragmenting the plantations into smaller parcels below 10 ha so that they could escape themselves from providing the non-wage benefits and the welfare measures as stipulated by the PL Act. This tendency has been on the rise in the plantation sectors, especially in Assam and Tamilnadu in recent years. In the South, this had resulted in a surge in the number of registered tea plantations especially in Tamilnadu. The number of newly registered tea plantations had more than doubled from 25746 to 62145 in the Nilgiris. This in fact has resulted in a gross exclusion of a major chunk of plantation workers from the protective provision of labour legislation, like supply of drinking water, suitable medical facilities, crèches as well as bonus, gratuity and provident fund (Viswanathan and Shah, 2009).

It is important to note that the plantations have enacted numerous legislations from time to time guaranteeing social security and welfare of workers, including women. These legislations, which are applicable to all plantations, mainly include the Plantation Labour Act 1951, the Minimum Wages Act, 1948, the Employees Provident Fund and Miscellaneous Act, 1952, the Maternity Benefit Act, 1961, the Payment of Bonus Act, 1965, the Payment of Gratuity Act, 1972 and the Equal Remuneration Act, 1976. However, despite such legislations, a vast majority of the plantation companies have become lethargic in the

9. It has been estimated that more than 60,000 workers have lost their jobs since 2002 and the livelihoods of tens of thousands of plantation dependent households have become insecure. In West Bengal, about 22 tea plantations have been closed down in Jalpaiguri district, which had adversely affected the 'tea tribes' employed in those plantations. The Report on Hunger in Tea Plantations in North Bengal' prepared by West Bengal Advisor to the Commissioners of the Supreme Court, showed that the closure of tea plantations had displaced about 20847 plantation workers (majority being women), which in turn destabilised the livelihoods of 94347 dependent households (Jana, 2011). Further, a report claimed that more than 800 workers died of starvation over a three-year period in West Bengal alone as a result of plantation closures (Actionaid, 2005).

provision of these labour welfare and social security measures. Health services were seriously compromised and not extended to all types of ailments and types of workforce. There were reports of widespread irregularities and corruption in the provision of medicines and treatments. All children in the age group of 1-14 did not get enrolled into the schools. Instead, they got enrolled into the plantation workforce as the families found it worth engaging them on work rather than sending them to schools.

In this regard, the findings of a study on the working of the plantation legislations bring out some interesting insights about the non-compliance of the provisions of the legislations by the planters. The report indicates that only about 47-50 per cent of the plantations were regularly submitting returns about the plantation activities. Hardly 17 per cent of the plantations provide canteen facilities and only 26 per cent of them have crèches. As regards the provision of housing units within the plantations, the report shows that when almost 65 per cent of the 6.7 lakh plantation workers are eligible for housing, only 9 per cent of them have been provided with housing facilities (GOI, 2008).

Given that women account for the largest segment of the workforce in plantations, it is only logical to conclude that the deterioration in the implementation of the labour welfare and social security provisions might seriously affect the status of women workers. As such, a vast majority of the plantations do not adhere to the provision of maternity benefits as per the Maternity Benefits Act 1961. Even in the case of the reported provisions, there are notable discrepancies in that the proportion of eligible women workers who were actually benefited has been abysmally low in the range of 5-8 per cent as shown in Table 7. More importantly, the average amount of maternity benefits paid to the workers has also been nominal and in fact, has also been declining.

Table 7: Provision of maternity benefits by the plantations in India

Year	Total women employed*	Women availed the benefit (%)	Maternity benefit paid per beneficiary (Rs.)
1991	228434	15.25	1717
1992	157711	11.27	2082
1996	322375	5.29	2224
2002	372115	4.73	3312
2004	498366	3.35	2255
2006	343847	4.43	2678
2007	346785	8.03	1522
2008	376083	7.73	1716

Note: *Denotes to the women employed by the plantation units submitting returns to the Labour Bureau, Government of India.

Source: Compiled from Labour Bureau (various reports); GOI (2009): Pocket Book of Labour Statistics.

The abysmally lower rates of provision of maternity benefits may be ascribed to the lack of awareness¹⁰ among the women workers about the benefits as well as the negligence shown by the planters in complying with provision of such benefits.

The lower proportion of women accessing the maternity benefits raises some important issues concerning the marital status of women workers and the subsequent childbearing status. Ironically, there are no historic data or periodic reporting about the changing marital and other demographic profile and status of women workers at the disaggregate

10. It has been reported that only about 44 per cent of the women workers are aware of the Maternity Benefits act, 1961, while about 35 per cent are aware of Minimum Wages Act, 1948 and 18.5 know about the Equal Remuneration Act, 1976 (GOI, 2009).

level across the plantation sectors. Nevertheless, the study by the Labour Bureau (GOI, 2009) covering 114 plantations (47 tea, 34 coffee and 33 rubber plantations involving 827 workers) throws some useful insights on the crucial aspects of age profile, literacy levels and marital status of the women workers in the three plantations (see Table 8).

Table 8: Age profile, literacy and marital status of women workers in the plantations

Age profile/ Education & marital status	Tea	Coffee	Rubber	All Plantations
1) Age profile (years)				
a) 15-18	0.4	2.3	1.1	0.8
b) 19-34	30.0	36.3	10.6	26.1
c) 35-59	68.5	60.7	87.2	72.1
d) Above 60	1.1	0.7	1.1	1.0
2) Educational status				
a) Illiterate	66.2	61.5	25.2	54.4
b) Below primary	8.3	8.9	9.6	8.3
c) Primary	10.7	16.3	32.1	16.7
d) Secondary & above	14.8	13.3	33.1	20.6
3) Marital status				
a) Unmarried	12.3	1.5	4.3	8.1
b) Married	72.0	85.9	74.3	75.9
c) Widowed	14.5	9.6	16.6	13.8
d) Separated/ Divorced	1.2	3.0	4.8	2.2

Source: Compiled from Labour Bureau, GOI (2009).

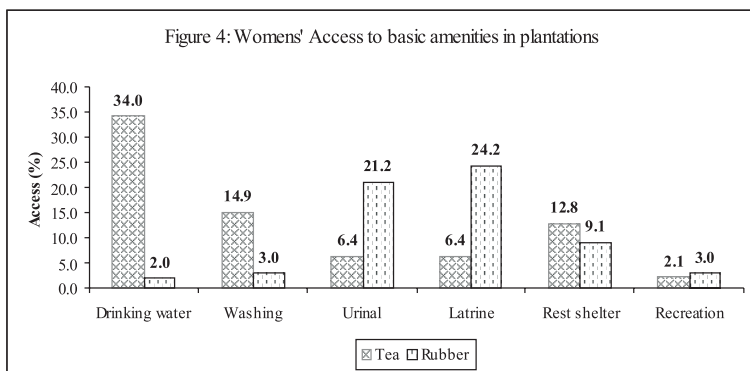
From Table 8 it is evident that about 26 per cent of the women workers are in the marriageable age of 19-34 years at the aggregate level. The case of rubber is an exception here as the proportion of women workers in this age group is hardly 11 per cent as against 36 per cent in

coffee and 30 per cent in tea plantations. The proportion of women workers in the age group of 35-59 years is found exceedingly high in rubber (87%) in relation to tea (68.5%) and coffee (61%). In terms of educational status, majority of women workers are illiterate (54%) with the highest proportion being in tea (66%), followed by coffee (62%). Women workers in rubber sector seem to be reasonably literate as higher proportions of them have either primary education or secondary and above as compared to tea and coffee. Marital status is distinct as almost 76 per cent of the women workers are married with a higher ratio of 86 per cent in coffee. It is a matter of serious concern from womens' social security point of view that about 14 per cent of the women workers in plantations are widowed with higher ratios in rubber (17%) and tea (14.5%).

Now, based on the above results, it may be observed that the inadequate access to maternity benefits may have been caused by the lack of awareness among the workers about the benefits, as majority of women are illiterate. Further, the results that more than 26 per cent of the women fall in the marriageable age group (19-34 years) as well as more than 76 per cent are married, point to the outright neglect of the provision of the maternity benefits by the planters. Based on the above analysis, it may also be observed that on an annual basis, about half a million eligible women workers were not receiving the maternity benefits in the plantations.

As per the PL Act 1951, women workers are also entitled for basic welfare amenities, like washing, separate urinals and latrines, shelter/rest houses, recreation facilities, etc. Due to the unsatisfactory provisioning and implementation of protective legislative measures especially in the post-trade reforms period, there is a huge gap between these provisions and facilities actually made available to the workers. There are ample evidences suggesting that women workers are increasingly getting deprived of the benefits and amenities like equal

remuneration *vis a vis* their counterparts, proper childcare services, etc. It has been reported that majority of the tea and rubber plantations do not comply with many of the mandatory welfare provisions (see Figure 4).



Source: Compiled from Labour Bureau, GOI (2009).

Plight of the women workers in tea plantations is more worrisome as the proportion of plantations providing the amenities is rather insignificant. As seen from Figure 4, there are significant deviations across the two plantations in respect of the provision of basic amenities to women workers in particular.

Several factors responsible for their plight are: indifferent attitude of the employers towards women workers, the weak bargaining power of women and lack of awareness regarding their rights. Reportedly, almost half of the women workers in the plantation sectors have membership in trade unions. However, they seem to be miserably failing in terms of negotiating for their customary rights¹¹ as plantation workers. Estate workers complain that their houses are unfit for occupation, and that despite several representations the management has done nothing to improve the living conditions.

11. Workers complain that many of their "customary rights", like the right to have kitchen gardens, rear cattle and build small annexes to their houses when their families expanded - were gradually withdrawn.

An interaction with a cross-section of women tea plantation workers in Kerala confirmed many grievances that they suffer in the plantations. 'Almost half of them are provided with houses', one worker said. "But, most houses are old and dilapidated and unfit for living during the monsoon which lasts for 5-6 months", said another. Another worker added: "There are many instances where 2-3 families are forced to live in a single house. We often lose our private life in such living arrangements. Even our children feel very much disgusted with such arrangements".

Medical facilities are inadequate, workers complained. Not all workers are provided free medical service. Temporary workers are not eligible for such facilities when they are not on duty. Even dependent children above 8 years are excluded from the scheme. "The treatments and medicines are expensive and if we go to the private hospitals for treatment (which is most likely), we do not get full reimbursement," reports another worker.

In coffee, women and children are particularly affected by the crisis. Women workers reported to have left their homes in search of elusive jobs in other sectors/ states. Many children have dropped out of schools as their parents could not afford the school fees and have begun doing odd jobs to augment the family income. In the closed estates women workers have also suffered particularly during pregnancy, due to closure of primary health centres (Chattopadhyay, 2007).

3.3.2. Trade Reforms Induced Crisis- Micro Level Issues

The foregoing discussion about the major impacts caused by the plantation crisis reveal that by and large the planters have adopted various strategies for restructuring the plantation production and labour management regimes, which enabled them to keep their profit margins intact. In the process, they have remained virtually ignorant or inattentive to the larger socio-economic and livelihood issues affecting the

plantation workers, especially, women and their dependent households. The loss of employment opportunities on the one hand had resulted in increasing poverty levels among the workers along with syndromes of undernourishment of children, malnutrition, spread of diseases leading to death or even suicides in the plantation regions.

In this regard, it may also be relevant to examine the various labour regulating measures adopted by the planters to overcome the crisis. In order to understand this, a cross section of women plantation workers has been surveyed. The workers were asked to report the important events that took place in the plantations since the beginning of the crisis. The questions posed were mostly enquiring as to what were the major crisis management measures adopted by the plantation managers during the past few years with respect to employment, payment of wages and working conditions in the tea and rubber plantations. The responses as revealed by the women workers are furnished in Table 9.

It is evident that there was decline in working days in both the plantations though the magnitude of work loss was relatively high in tea (52%) compared to rubber plantations (28%). This eventuality of employment reduction as revealed by the workers may be supplemented with the admission by few of the planters themselves that the plantation companies (especially, tea) have taken a policy of annual cut in employment to the extent of 10-20 per cent per annum.

Compared to rubber plantation workers, larger proportion of tea plantation workers have reported an increase in working tasks, which implies that the tea plantation workers have been asked to pluck more quantity of tea leaves in the post crisis period than they used to pluck earlier. About 76 per cent of the tea plantation workers surveyed have reported an increase in plucking tasks as compared to 56 per cent of the rubber tappers who reported an increase in tapping tasks (the number of trees to be tapped on a given tapping day).

Table 9: Workers' responses about crisis management strategies adopted by planters in Kerala during the last few years

Response		Tea plantation workers (n=30)			Rubber plantations workers (n=26)		
		Yes	No	No change	Yes	No	No change
1.	Decline in working days	52.0	22.0	26.0	28.0	40.0	32.0
2.	Increase in working tasks	76.0	10.0	14.0	56.0	32.0	12.0
3.	Revision in wages	20.0	52.0	28.0	38.0	32.0	30.0
4.	Receipt of bonus and other allowances	28.0	64.0	8.0	52.0	20.0	28.0
5.	Receipt of weather protection allowances	24.0	58.0	18.0	64.0	16.0	20.0
6.	Leave encashment facilities availed	34.0	50.0	16.0	66.0	10.0	24.0
7.	Receipt of sick & other benefits	20.0	54.0	26.0	56.0	28.0	16.0
8.	Were labour unions active to represent your grievances?	16.0	64.0	20.0	24.0	58.0	18.0

Source: Information gathered based on survey of tea and rubber plantation workers in Kerala during 2008.

The discussion with workers also clarified the point that in case of some of the tea plantations, the plucking target for tea leaf has been enhanced by more than two fold. For instance, the plucking target was 16-20 kg per day which was enhanced to 35-40 kg per day. In the case of rubber, it was observed that the tapping task has been enhanced from 350 trees per tapper per day to 450 trees per tapper per day.

Wages were not revised in tea plantations during the past several years as reported by 52 per cent of the workers, while there was revision in wages in rubber as admitted by 38 per cent of rubber plantation workers. In fact, some of the tea plantations have also reduced the wages during the crisis period. About 35 per cent of the tea plantation workers have reported that they had to work on a daily wage of Rs. 50 for almost two years against the stipulated wages of Rs. 115 per day, which suggests that the wage decline was more than 50 per cent. If viewed this drastic wage reduction from the perspective of the planters, it has been reported that overtime plantation wages along with the various extra-wage provisions have increased phenomenally as compared to prices of tea leaves per se. Moreover, planters have been insisting such a reduction in wages as the business was running unremunerative, making the workers feel the pinch of the crisis.

While majority in tea plantations did not receive bonus and other allowances during the last few years (64%), in rubber there was positive response from 52 per cent of the workers. Similarly, in the case of weather protection allowance also, the two plantations have shown contrasts. While majority of tea workers were not paid any such allowances (58%), in rubber 64 per cent have received the weather protection allowances. Tea plantations also have shown an outright neglect of other benefits entitled to the workers in the form of leave encashment, provision of sick and other benefits, etc. It seems that in sharp contrast to tea, rubber plantations have complied with almost all the labour entitlements as per the provisions of the PL Act. A yet another important and crucial

point emerge from the above analysis is that the labour unions have been highly ineffective in negotiating terms with the planters in matters of protecting the genuine interests of the workers. As majority of the workers have observed, labour unions have in due course turned as advocates for protecting the planters' interests.

The eventualities as described above underlies that the conditions of the plantation workers have turned bad to worse, as a vast majority of them have experienced drop in employment, wages, and other benefits that they are entitled under the provisions of the PL Act. In other words, the plight of the plantation workers had worsened because of the crisis, as the entire brunt of the crisis has been narrowed down to a drop in their earnings, thus leading to untold miseries in their lives. A comparison of the wages in plantations with the wages received by the agricultural labourers as well as skilled workers in Kerala is important in this context so as to highlight the wage disparities that exist even in a state which had been successful in implementing the minimum wages act.

Our survey revealed that the plantation wages were ruling very low with significant gender differences (Table 10). For instance, in the case of tea, the average daily wages of the male workers was Rs. 122 as compared to Rs. 108 for female workers. Compared to tea, wages of male and female workers were high in rubber plantations, Rs. 143 and Rs. 123 respectively. Differences also exist between males and females in terms of overkilo incentives (over and above the minimum daily work task) earned by the workers in both the plantations.

The wages as reported by the plantation workers above has been significantly lower than the wages of agricultural workers and construction workers in Kerala. For instance, the average daily wages paid for male agricultural labourers was Rs. 191 and Rs. 133 for female labourers during 2007-08. Further, the skilled workers in the construction sector were receiving a daily wage of Rs. 247 (GOK, 2008). Plantation

Table 10: Average Earnings of workers in tea and rubber plantations, 2008

Descriptives	Working days (monthly)	Monthly Earnings	Over kilo incentives (%)	Avg. daily Earnings
1. Tea plantations (n=50)				
Male workers	25.0	3050	35.6	122
Female workers	24.5	2645	27.5	108
% difference	-2.0	-11.6	-11.6	-11.5
2. Rubber Plantations (n=50)				
Male workers	22.5	3165	27.3	143
Female workers	22.2	2695	19.2	123
% difference	-1.3	-16.4	-29.7	-14.2

Note: The wages reported only include the basic wages and dearness allowances.

Source: Survey of 50 rubber plantation workers in Central Kerala during 2008.

work being a skilled work as it involves skilful harvesting of tea leaves and rubber tapping, the prevailing wage rates are rather low and do not offer adequate incentives or opportunities for the plantation workers to improve their socio-economic status. This is further complicated by the fact that an overwhelming majority of the plantation workers are landless and migrant workers who do not have anything to fall upon once they are out of employment in plantations. This invariably makes them cling to the plantation work despite it being poorly paid and a vast majority end up their lives in the 'labour lines', without having any feel of the 'prosperous life and material wellbeing' outside the plantations.

The labour conditions in tea plantations in West Bengal and Assam were much more critical, as the plantations in these states have always been known for their anti-labour management regimes. As already stated,

a large number of plantations have remained closed for the past several years with serious implications on the livelihoods of the workers. As the plantations were closed, the food rations for the workers came to a halt. Since tea plantations located in remote areas with their workers living on the plantation itself, the abandonment of the plantation by the owners and managers has caused disaster for the workers. The most serious casualty was on the nutritional status of workers in plantations which have been closed down following the crisis. Based on each adult's body mass index (BMI), a study in West Bengal concluded that 'taken as a whole, the entire population can be labeled as a starving community or at critical risk for mortality from starvation by WHO criteria' (Biswas *et al.*, 2005).

A direct consequence of this plight has been the casualty of death of workers by starvation and diseases. In West Bengal, more than 7000 starvation deaths were reported from tea plantations (Gupta, 2007). On an average the plantations have lost 3-8 per cent of their workforce during the period. The casualty in terms of loss of livelihoods would be much more, if we reckon the number of households who were dependent on the deceased workers. In all probability, this amounted increasing immiserisation¹² of the plantation workers as narrated in Box 1.

12. The tea sector restructuring has caused great misery for the plantation communities. Reports of hundreds of people dying of hunger on tea estates have been one of the heartbreaking casualties from abandoned or closed plantations. The workers and their families on these estates have been deprived of food, drinking water, electricity, health care and other social protective measures. Workers remain trapped on the estates where their families had toiled for generations and were also not having alternative job opportunities as the plantations are remotely located. (Action Aid, 2005; Talwar, *et al.*, 2005).

Box. 1: Report on Hunger in Tea Plantations in North Bengal

For the past few years, the tea industry in West Bengal has been in a state of crisis. The owners have abandoned tea plantations, causing much misery to workers and their families. Workers were dependent on their employers not just for wages. They used to receive a number of other facilities, such as subsidised rations, free quarters, drinking water and electricity. The management used to also provide workers and their families with health care at the tea plantation's hospital. Transport for their school and college-going children was also provided by the plantation management.

As tea plantations are in interior areas with their workers living on the plantation itself, the abandonment of the plantation by the owners and managers has meant hardship for the workers in many ways. Electricity has been cut off and as the water supply was electricity dependent, this has meant that workers receive no drinking water. As labour lines are far away from any other habitation and therefore any other source of drinking water, workers and their families have in some cases been forced to depend on river water that is unfit for drinking purposes. Children in school and college have been forced to stop their education due to the general situation of unemployment in their families and the more particular problem that the plantation's tractor is no longer available to take them to their schools and colleges.

While the above are comparatively minor problems, a more major problem has been the starvation and malnutrition that has ensued from the stopping of work and the non-availability of alternative employment. Living in the middle of nowhere with no work other than that available in the tea plantations, workers and their families have been suffering from malnutrition, anaemia and other nutrition related problems. Combined with the lack of medical treatment, the results have been drastic. Workers and members of their families have been dying like flies.

Source: West Bengal Advisor to the Commissioners of the Supreme Court (2004), *Report on Hunger in Tea Plantations in North Bengal*, 22p.

4. Free Trade Agreements and the Plantation Sector: Challenges and Gender Impacts

The emergence and proliferation of FTAs or RTAs may be regarded as the most significant development in the post-Doha round of WTO negotiations. Notably, the share of world trade covered under the RTAs has been on the increase since then. As of November 2011, 505 RTAs have been notified to the GATT/ WTO, of which, 211 are currently in force (www.wto.org) with the rest under various stages of negotiations. In fact, the emergence of FTAs/ RTAs is seen as an important event in the history of trade between nations having greater implications for growth and welfare of nations, particularly, the under-developed and the developing. Ever since the emergence and proliferation of trade agreements between regions, there have been serious discussions the world over around the dilemmas, potentials and welfare or distributive outcomes of such agreements especially on the small/ marginal producers and the labouring communities¹³.

Serious apprehensions are also raised against the gender sensitiveness of trade reforms as well as the trade agreements. It is widely recognised that trade reforms and trade agreements (bilateral or multilateral) *per se* need not be effective instruments for enhancing gains from trade, unless and until the reforms are sensitive to the pertinent issues facing women producers and workers in the global context. By and large, as the foregoing evidences also show, women producers and

13. The potential benefits of RTAs are in terms of both production and consumption gains facilitated by greater market access. Studies on welfare effects of RTAs by Schiff (1996) Rutherford and Martinez (2000) indicate that welfare gains are greater if: (i) the reduction in trade barriers is higher; (ii) the higher the share of pre-existing trade between partners; (iii) the larger the trade partner; (iv) the more diversified the partners' economies are; and (v) the more closely the partners domestic prices resemble world prices. Traditionally, welfare gains were assessed in terms of net benefit from "trade creation" and "trade diversion" resulting from trade liberalisation on a regional basis. In fact, the beneficial outcomes depend on a variety of factors including the very structure and design of FTA and the five factors cited above. Nevertheless, the debate is inconclusive (Das 2001).

workers continue to cluster around the low-skilled, low and late paid activities. As such, empirical evidences are also rather limited to throw useful insights on the implications of trade reforms and the FTAs or any other trade policy instruments on the socio-economic status and livelihoods of women. Given this, this section tries to highlight some of the potential implications of trade reforms/ FTAs on women producers and workers engaged in the three dominant plantation sectors. The discussion mainly confines to the most decisive FTAs involving India, *viz.*, the ASEAN-India FTA (AIFTA) and proposed Indo-EU FTA.

There are serious concerns as regards the very effectiveness and compatibility of FTAs in a multilateral trading system as proposed under the WTO framework. This is because, trade agreements per se, whether bilateral or plurilateral, do not automatically lead to increased trade among the parties. Many other factors, particularly, those related to supply and demand patterns for particular products of the member countries, will have significant influence on intra-regional trade performance and its impact on the production and labour segments. A static view of the effects of regional agreements may therefore be misleading in the absence of a long-term assessment of pattern and behaviour of trade in commodities between countries or regions concerned within a FTA area. The dynamics of the various regional blocks indicate that the intensity of intra-regional trade among developing and transition economies is conditioned by several factors, which may reinforce each other. These include the absorptive capacity of the individual domestic markets for the products of the neighbouring countries, which is mainly determined by the relative size of the economies of the region and their per capita incomes and production structures (UNCTAD, 2007).

Given this backdrop, it may be relevant to discuss some of the major implications that the trade agreements (FTAs) between India and other trading partners, such as the ASEAN and the proposed EU FTA

may have on India's plantation sector. In a sense, it may help us determine whether trade reforms and the subsequent emergence of bilateral and multilateral trade agreements would provide opportunity for India's plantation sector to restructure the domestic production environments in order to enhance the competitiveness. At the same, it also requires strengthening the stakes of small producers (as against that of the few big players) and women plantation workers in particular, and thereby make a better ground for protecting their livelihoods in the emerging context.

Although India was not part of the regionalisation drive during the 1990s, since mid 2003 (ie., the post-Cancun period) it has initiated the process of entering into a number of RTAs spread across the continents. India has been involved in 19 free trade negotiations and these negotiations are in different stages of consultations. From the view point of the tea and rubber plantation sectors, the most decisive RTAs are Indo-Sri Lanka Free Trade Agreement (ISFTA), Indo-SAARC agreement and the ASEAN-India FTA (AIFTA). Besides, the proposed India- EU FTA is also important from the perspective of the plantation products. If the Pan-ASEAN FTA initiative materialises, it would emerge as a broad based regional trading block similar to NAFTA or the EU. Although this may provide good opportunities for the two plantation products, it is probably dominated by ASEAN, China and Japan (Mohandas, 2007).

It may be observed that in the emerging context, prospects of India's trade in tea and rubber products may depend on various exogenous factors. This is because, some of the effective RTAs are signed between India and the countries within the South and South East Asian region, who are also producers of tea and rubber in particular. More importantly, there are serious concerns on the welfare effects of the RTAs in country-specific contexts as countries differ as regards extending MFN status to the neighbouring countries within the same regional/ geographical contexts. It may not be possible to rule out the 'unfair' practices such as

dumping¹⁴ or prevalence of higher levels of export subsidies in the competing countries within the RTA network. Incidentally, India's major competitors in both tea and natural rubber are from within Asian region, *viz.*, Sri Lanka, Vietnam, China, Thailand and Malaysia. This scenario calls for examining the impact of RTAs on the domestic production and trade segments and the resultant performance efficiency of the tea and rubber plantations in India.

The ISFTA was one of the early RTAs signed between India and Sri Lanka. According to Rules of Origin¹⁵ (ROOs), if the raw materials or inputs are sourced from one country by the other, the value addition criteria would be more lenient (25 per cent as opposed to 35 per cent under normal circumstances). It has however been observed that the ROOs failed to tackle the question of value addition properly and as a consequence, the traditional products of Kerala such as tea, rubber and spices have suffered at times owing to mere passage of these commodities through Sri Lanka from several ASEAN countries.

Thus the rules of origin (ROO) issue is a major challenge faced by India, as it is unable to trace the origin of a product, say tea, rubber, or other agricultural products, such as pepper, cloves, etc which enter India via Sri Lanka. The entry of such agricultural products via Sri Lanka into

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14. A study by Assocham pointed out that countries like China, Philippines, Malaysia, Indonesia and even Taiwan used Sri Lanka and Thailand as "Conventional destinations" to dump them. The study concluded that due to this Sri Lankan exports to India grew from \$90.80 million in 2002-03 to \$364.39 million towards the end of 2002-03 to \$364.39 million towards the end of 2004-05. It pointed out that while India's exports to Sri Lanka and Thailand rose by 47 per cent and 19 percent respectively, imports to India from these countries went up by 300 percent and 125 percent respectively, between 2002-03 and 2004-05 (Assocham, 2006).
 15. Rules of Origin (ROOs) forms an important measure emerged as part of the non-tariff barriers and are intended to prevent products of third countries being re-exported to one of the parties to the bilateral agreement through the other party to the agreement without substantial value addition or transformation in the final exporting country.

India's ports may cause decline in domestic prices. A quota of 15 million kilograms is imposed in Sri Lanka with strict ROO on tea exports with entry ports limited to Kochi in South India and Kolkata in the North. In fact the import via ports, Kochi and Kolkata have been reportedly leading to tremendous pressure on domestic tea and rubber producers as these ports are located adjacent to the plantation areas. While India stands to gain market access to major trade partners, it still has to compete with other RTA partners in the countries concerned (e.g. with China, Japan and Korea in the ASEAN market). Moreover, the overlapping RTAs make the application of the rules of origin (ROOs) provision very cumbersome, and may lead to future trade disputes (Chaisse, 2008).

India's comparative advantage in tea production is largely constrained by lower productivity and consequential higher cost of production. Since a major chunk of the plantations are old and uneconomic, the viability of the plantations has also been severely affected. As observed above, the investments for replanting and expansion of tea plantations have not been forthcoming in a proportionate manner. As a result, India's price competitiveness in tea has been badly affected by higher cost of production as compared to its counterparts. The comparable cost of production estimates reveal that India has the highest unit cost of production (US\$ 1.62 per kg) compared to Sri Lanka (US\$ 1.23/kg), Kenya (US\$ 1.16/kg), Vietnam (US\$ 0.96/kg) and Indonesia (US\$ 0.58/kg). The estimates are an indication although it may appear to be over estimates.

4. 1. Tariff Barriers and Domestic Protection

Tariff reduction has been regarded as a crucial measure being adopted by the WTO member countries in order to ensure increased access in the global market. While there are complexities around tariff reduction across the developing countries in particular, many of the countries, including India have reported a progressive reduction in general (unweighted) tariff levels as a measure to fulfill the commitments

under the WTO regime. Instantaneously, countries, such as the EU, Japan and the US also had already set their applied tariff levels to the minimum levels, so as to provide easy market access. An important point emerge here is that even with the reported reduction in tariff levels, India's applied tariff rate remains to be high compared to its potential competitors in tea and rubber, *viz.*, Sri Lanka, Kenya, China, Indonesia, Thailand, etc. The ASEAN FTA is anticipated to impact upon the tariff regime, as India may have to bring down import duties from the current levels of 100 % to 45% by 2019.

India's MFN tariffs are also considerably high for all product groups in comparison to many of its competitors as well as importers of plantation products as evident from Table 11.

For instance, India's tariff rates are the highest among the countries for tea/ coffee (56%), rubber and rubber products (14.3%) and agricultural products (32%). This signifies that India may have to make further reduction in tariffs to remain competitive in the global market in respect of all the products, especially, plantation products. In this regard, the full scale implementation of any trade agreement between India and rest of the countries would put India under severe pressure to further liberalise the tariff regime to 0-5% on par with its counterparts as being proposed under the SAFTA, which may turn out to be detrimental to the plantation production sectors and the dependent producer and worker populations.

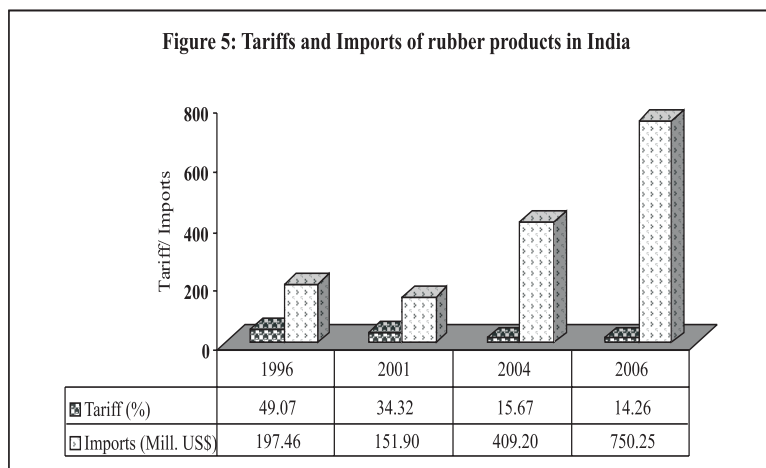
As observed above, India's imports of rubber and rubber products have increased especially in the post-reforms period and this may be seen as an outcome of changes in the import policy (removal of QRs) as well as the progressive tariff reduction policy followed by the Government of India. As evident, India's average import tariffs on rubber and rubber products have been reduced by almost 71 per cent from 49.07 percentage points during 1996 to 14.26 percentage points during 2006 (Figure 5).

Table 11: Applied MFN tariffs on major products groups, including plantation products, India vs others, 2009-10

Country	Simple average	Agri. products	Tea/ Coffee	Rubber & rubber products	Non-Agri. Products
1. India	13.0	31.8	55.6	14.3	10.1
2. China	9.6	15.6	14.7	12.8	8.7
3. Indonesia	6.8	8.4	8.3	7.5	6.6
4. Sri Lanka	10.6	26.3	27.5	16.1	8.2
5. Vietnam	9.8	17.0	23.5	9.6	8.7
6. Kenya	12.5	19.7	25.0	7.3	11.4
7. EU	5.1	12.8	6.5	2.6	4.0
8. Thailand	9.9	22.8	28.3	8.0	8.0
9. Malaysia	8.0	10.9	5.7	18.8	7.6
10. US	3.5	4.9	3.2	2.9	3.3

Note: For countries, India and China, the year varies for tariffs for rubber and rubber products.

Source: WTO (www.wto.org).



Interestingly, this period also witnessed a surge in imports of rubber and rubber products by about 280 per cent. That is, the value of imports of rubber and rubber products had increased from US\$ 197 million to US\$ 750.25 million during the above period. Following further reduction in average tariffs to 11.3 per cent, India's import of rubber and rubber products had more than doubled since 2006 to reach US\$ 1825 by 2010. Compared to tea, the rubber products are innumerable with almost 200 tariff lines accounting for a significant variability (CV) to the extent of 65 per cent in the applied tariff levels.

4.2. Environmental and Labour Standards

The emergence of various forms of non-tariff barriers (NTBs) may be seen as the most significant development in the international trade front especially in the post-Doha scenario. Empirical evidences though limited, suggest that by and large developing countries stand to experience losses in exports because of the difficulties in complying with the environmental standards mostly in the form of sanitary and phyto-sanitary measures (Chaturvedi and Nagpal, 2003).

In so far as India's tea and rubber sectors are concerned, the issues related to setting up of environmental standards in the form of SPS and labour standards¹⁶ imposed by the plantation products importing EU countries in particular are likely to affect the tea, coffee and rubber sectors. Already there are evidences of increasing import restrictions imposed by importing countries, such as the EU in particular in terms of imposition of various voluntary certification standards, including the Fair Trade (FT) and Rain Forest Alliance (RFA) systems (Lalitha and Viswanathan, 2012). In this context, the plantation sectors may have to undertake various plantation production restructuring and disciplining activities in order to enhance their competitiveness and thereby improve market access. Compliance to SPS measures in the case of tea requires keeping very low levels of pesticide residues (MRLs) in made tea. Even otherwise the tea sector faces greater challenge of restructuring the production sector to retain its competitive edge in the international markets. As implementation of the SPS measures entails huge costs without compensating effects on profit or market shares, majority of the tea producers (medium and small) may not be able to incur such costs. SPS issues in the tea sector also relate *inter-alia* to certification and packaging, labour standards, etc.

For India's rubber sector, the OECD, EU and OPEC markets are important, as they together account for almost 68 per cent of India's exports of rubber and rubber products (Table 12). The safety and quality standards as prevail in these countries pose a significant challenge to

16. Reportedly, the EU does not recognise much of India's quality evaluation/product testing standards as exist today. The host of barriers that EU imposes on agricultural trade makes it much more difficult for small farmers and women farmers with low or no access to quality evaluation apparatus, to effectively access the EU markets (Singh and Sengupta, 2009).

the Indian rubber exporters, with consignments having been rejected or outright bans (based on sanitary measures) imposed¹⁷ (OECD, 2003).

Though India finally concluded the negotiations on the ASEAN-India FTA in August 2008, there are several concerns in so far as trade in plantation products, especially, rubber is concerned. Since ASEAN along with SAARC together account for about 85 per cent of area and 87 per cent of rubber production, India's FTAs with rest of the ASEAN and SAARC members would have tremendous implications on the rubber sector. The India Thailand bilateral FTA also assumes greater significance for India as India has been under pressure to reduce the import duty for import of natural rubber from Thailand. As such Thailand forms the next largest source of India's rubber imports (40%) after Indonesia (42%). The rubber products manufacturers in India have also been successful in the past in depressing the Indian rubber prices by importing rubber even during months of peak rubber production. This exerts tremendous downward pressures on domestic prices. India's competitiveness in rubber is also at stake compared to the newly emerging rubber producers in the ASEAN, viz., Laos, Vietnam, Cambodia, Myanmar, etc. Since rubber based industrial development is yet to take place in these countries, they may become sources of cheaper rubber import for India under the reduced tariff regime.

17. In case of the rubber and rubber products, it is reported that the tyre companies have standardised their packaging to meet the export market specifications. India also has a vast non-tyre product segment covering more than 500 products. As majority of these non-tyre producers operate on smaller scale of production capacities, compliance of the environmental standards, like the SPS would be a major deterrent for the growth of the sector. Rubber sector also faces charges against anti-dumping and anti-subsidy. A country-wise analysis of the cited cases against anti-dumping and anti-subsidy keeps EU countries on the top of the list. Out of a total of 82 anti-dumping cases initiated against exports from India, the highest number of cases were seen to have filed by EU (33%), followed by USA (17%), South Africa (13%), Indonesia (7%), Canada (6%), Brazil (5%), etc (Mehta, 2005).

Table 12: Trends in India's Exports of Natural Rubber products to various trade blocks

Year	Percentage of exports of rubber and rubber products to							Total (US\$ million)
	OECD	EU	OPEC	ASEAN/ SAARC	NAFTA	CIS	LAIA	
1993-94	na	na	23.0	26.9	41.9	3.4	4.8	179.21
1995-96	na	na	29.9	29.9	35.8	2.2	2.1	224.63
1997-98	32.1	8.8	15.3	17.8	21.9	1.0	3.1	409.13
1999-00	33.1	13.5	14.1	16.1	17.6	1.8	3.8	353.20
2001-02	31.9	13.5	15.1	16.0	16.0	0.9	6.5	429.24
2002-03	33.3	15.1	14.7	15.9	15.2	0.7	5.1	543.45
2003-04	33.3	16.2	12.5	18.8	13.5	0.9	4.7	683.89
2005-06	33.7	18.4	16.0	14.5	11.1	0.8	5.4	1017.50

Notes: OECD- Organisation for Economic Co-operation and Development; EU- European Union; OPEC- Organisation of Petroleum Exporting Countries; NAFTA-North American Free Trade Area; CIS- Commonwealth of Independent States; LAIA- Latin American Integration Association.

Source: Viswanathan and Shah (2009), p. 103.

To sum up the above analysis, it may be observed that the FTAs that India already signed with the ASEAN and the proposed India- EU FTA may have significant implications for the tea and rubber plantation sectors. First of all, the stiff competition that Indian plantation sector might face from its production counterparts, viz., Kenya, Vietnam and Sri Lanka in case of tea and Thailand, Indonesia and Malaysia in case of rubber. On the other hand, under the proposed India-EU FTA, India may have to embark on a massive internal restructuring programme to get increased market access in terms of implementation of environmental and labour standards in the production and management of plantations.

Various issues regarding the proposed India-EU FTA need attention in the specific case of rubber and tea plantation products. While India's trade in tea with EU seems to have experienced some setbacks in the context of the crisis¹⁸, EU is a major importer of India's rubber and rubber products as observed (Table 12). Though it is extremely premature to resonate on the implications of the proposed India-EU FTA¹⁹, it may be surmised that an assessment of benefits or losses coming out of the proposed India-EU FTA cannot be viewed in isolation; other agreements would also have to be taken into account. Given the EU's FTA engagements with other economies, and given the fact that some of those economies are competing with India, the absence of an India-EU

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18. The three trading blocks, viz., CIS, EU and OPEC have been the dominant destinations for India's exports until 1999-2000 occupying a relative share of 78-83 per cent of India's tea exports. However, following the plantation crisis, there was a drastic decline in the share of the three trading blocks from 83 per cent in 1999-2000 to 42 per cent in 2005-06. This decline in relative share of the three trading blocks has been caused entirely by the decline in India's tea exports to the countries in the EU. In fact, India lost its export markets in the EU since 2000, which was consuming almost one third of India's tea exports until then (Viswanathan and Shah, 2009).
19. Though India has been negotiating on the FTA with EU since 2007, the negotiating text still remains a secret document with researchers/ analysts and civil society organisations having no clue about the detailed contents of the same, so as to evaluate the possible impacts of the same (Singh and Sengupta, 2009).

FTA means India could fail to retain its market share in many of its significant tariffs. Further, since the EU tariff levels are significantly low for all product groups, including plantation products (Table 11) and near zero in 90 per cent of its products, under the proposed India-EU FTA, India may be compelled to adopt an aggressive tariff reduction strategy in order to increase its market access to the EU markets. As evident from little available sources, under the EU FTA negotiations, the EU imposes India to bring down its applied tariffs to a level of zero by 2015. In that sense, almost 90 per cent of tariff lines will face a total elimination of tariffs while the residual 10 per cent will face a phased elimination to zero (Singh and Sengupta, 2009).

On the other hand, researchers share mixed responses in so far as the larger implications of the India-ASEAN FTA (AIFTA) on India's plantation sector are concerned. While some argue that the India's plantation products will benefit from the AIFTA through increased integration and co-operation as an emergent trade block as well as trade creation benefits (Joseph, 2009; Veeramani and Saini, 2011), others are concerned that the FTA may lead to deterioration in India's trade balance with most of the countries. In particular, it may turn detrimental to plantation and marine products as well as light manufacturing industries²⁰.

5. Conclusions and Policy Imperatives

Though there have been various studies and individual or committee based investigations to understand and report about the

20. It has been argued that integration with ASEAN perhaps offers the last opportunity to address the issues surfacing the plantation commodities in India. Accordingly, it opens up new prospects for the millions depending on the plantation sector. In this respect, Joseph (2009) argues that the increase in import of natural rubber from ASEAN cannot be construed as a causation of tariff reduction in the event of the AIFTA. This eventuality could be viewed as part of a policy which has a laudable objective of promoting employment through value addition and aspiring to make India a global processing hub for plantation commodities (Joseph, 2009) [For a detailed discussion, also see: Pal and Dasgupta, 2009; Veeramani and Saini, 2011; Nagoor and Kumar, 2010; Francis, 2001].

plantation crisis induced by the trade reforms, most of them approached the problematique from the framework of conventional supply and demand analysis (market instruments), prices and trade. Hardly few empirical studies are available that try to understand the labour dynamics and the gender impacts of the crisis and the trade reforms in a holistic manner and offer valuable suggestions and policy guidelines from a sustainable plantation development perspective. In this regard, this paper tries to examine the broader impacts of trade reforms in India's plantation agriculture with specific reference to the tea, coffee and rubber plantation sub-sectors. The paper has a specific focus on the gender dimension of the impacts of trade reforms, as Indian agriculture and the plantation sub-sectors have been underway significant transformation in terms of increasing feminisation of agriculture and gender work participation in agriculture and plantation related activities. The paper makes a critical review of India's plantation sector in the backdrop of the crisis that had adversely affected the performance and economic sustainability of the plantation sub-sectors since the late 1990s.

The paper underscores that the crisis that had affected the three plantation sub-sectors had and continue to have serious repercussions on the livelihoods of the small producers as well as the plantation workers, a vast majority of whom are women workers. The ramifications of the crisis have turned phenomenal as the planters' community vehemently adopted various crisis management strategies, one of which was targeted towards displacement of the workforce in the plantation sectors. It emerges that the crisis has been a major point of departure for the plantation sectors in order to launch a series of measures for internal restructuring. Invariably, the internal restructuring was unilaterally directed towards labour displacement and employment reduction, which had affected the livelihoods of plantation workers, especially, women. In the process, most of the structural issues and internal contradictions have been largely ignored by the plantations. By and large, the neglect of the structural impediments may have serious implications in so far as

the sustainable development and growth of India's plantation sector is concerned. This leaves us to think in terms of the policy and institutional imperatives and the long-term solutions for sustaining the growth dynamism of the Indian plantation sector.

In the context of the structural imperfections and market uncertainties affecting the tea production sector in particular, an important policy perspective is to promote alternative systems of tea production so that the stake of the small tea producers is strengthened. Along with structural issues and market uncertainties, there are other major threats emanating from climate change, growing shortage of plantation workers due to the specific labour displacing and ruthless labour management policies adopted by the planters over the years. Even though the country has a checkered history of more than a century of tea planting with significant growth in smallholder adoption, there has not been any remarkable impact on the livelihoods of the small tea producers as well as the tea plantation workers, especially, women. This is in sharp contrast to the rubber sector in the country, wherein the smallholder sector had transformed as a dynamic source of growth for the rubber industry along with greater linkages and welfare outcomes.

As a matter of fact, though development of tea plantations in India have been ably assisted by the institutional support mechanisms as provided by the Tea Board, the entire development process has ignored the largest segment of small tea producers as well as plantation workers, especially, women. A major segment of small tea producers do not even have registrations with the Tea Board, which is mandatory for receiving the institutional support for plantation development. This has been due mainly to the lack of title deeds for cultivable land operated by the small tea producers. Thus, the absence of title deeds prevents them from getting registered with the Tea Board thereby hindering their access to the subsidies and financial assistance under various schemes of the Tea Board and other financial institutions.

The abysmally poor performance of the Tea Board in terms of its non-reachability to the smallholder producers as well as plantation workers needs to be contrasted with the smallholder sector oriented development interventions made by the Rubber Board. In this regard, Indian Tea Board may come out with a concrete policy and long-term action plan for revamping and reprioritizing its activities and R&D extension support systems towards the smallholder producers as well as plantation workers as in the case of Rubber. This needs to be an urgent priority to sustain the growth and competitiveness of the Indian tea sector.

Finally, the plantation sector development programmes in the case of both tea and rubber grossly suffer from long-term perspective plans and development strategies especially in matters related to sustainable management of plantations in the face of trade reforms on the one side and the emerging labour market crisis confounded by severe labour shortage. These issues become more prominent and need suitable policies, institutional strategies and incentive mechanisms especially to retain and strengthen the existing workforce in the plantations. It is a fact that acute labour shortage, mounting social costs and dwindling social security provisions as observed are going to affect the sustainable performance of plantation sector in India in the wake of the trade reform and global market integration policies. The anti-labour policies and labour retrenchment measures as adopted by the plantations in the context of the crisis have resulted in serious implications for the sustainable future of plantations. This has become more evident from the acute labour shortage experienced by the plantation units despite a reasonable improvement in prices of plantation products and wages in recent years. A significant proportion of the workers have migrated to other industries following the retrenchment policies adopted by the planters.

The changing times and trade environments in the global market essentially calls for the plantation sectors to be highly sensitive to resolve

labour market dilemmas, especially the concerns on gender equality in wages, social security provisions and access to resources that strengthens their livelihoods. India's increased engagements in trade in plantation products with the EU in particular, would necessitate stricter compliance to labour and environmental standards. Launching of such environmental and labour standards would require greater investments for HRD of plantation workers, especially, women. However, the better outcomes of this will depend on the assimilative capacity of the workers, which is determined by the level of education and age of the workers. Since a vast majority of women workers are illiterate and belonging to higher age category, this would only mean further displacement of the permanent workers and a significant change in labour recruitment favouring sub-contracting, etc. A major policy initiative for gender mainstreaming is required in case of rubber plantations in view of two important reasons. First, the size of organised rubber plantations in total rubber plantation area in India is hardly 10 per cent and hence, the potential of this sector in creating employment and livelihood opportunities for women is somewhat limited. On the other hand, the rubber smallholding sector which constitutes the largest segment in India is certainly handicapped in terms of persisting labour shortage leading to the syndrome of '*multiple grower dependence*' (Viswanathan *et al.*, 2003) along with abysmally lower levels of women participation in the labour market, despite the smallholdings are reasonably organised and integrated in terms of rubber producers societies (RPSs). This is a major challenge that institutional agencies, such as the Rubber Board could address in terms of evolving institutional support or incentive mechanisms leading to increased gender participation in production and management of smallholdings. In a way, this would help resolve much of the labour market dilemmas surfacing the rubber plantation sector and thereby creating sustainable outcomes on the status of women and their livelihoods.

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