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**LABOUR SHORTAGE IN COFFEE
PLANTATION AREAS – COPING
STRATEGIES OF SMALL GROWERS
IN KODAGU DISTRICT**

**C.Upendranadh
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ABSTRACT

Coffee plantations of Kodagu district are reeling under the pressure of shortage of labour and rising cost of labour. Given that plantation operations are labour intensive and time bound, there appears to be severe shortage of labour in particular time-periods and for particular operations. Absentee-planters also contribute to the situation as they offer more wages in order to complete operations in short span of time. On the labour side, with younger generation of plantation labour families migrating to cities for wage work, aged labourers and women are the only available labour in the district. Hence most planters depend on day-migrants from outside. Systems of jeep-drivers acting as 'maistries' in ensuring supply of labour from villages within and adjoining districts has evolved as a coping mechanism, which resulted in rising cost of labour and exploitative intermediation between planters and labourers. Some planters also resort to migrant labour from other states. However presence of outside labourers in large numbers is perceived as a potential disturbance to the social milieu of Coorg. The study calls for pro-active role of intermediary agencies (Government, Coffee Board and NGOs) to address these complex issues involved. This involves the regulating the exploitative activities of 'maistries' or jeep drivers, Coffee Board could engage closely with small growers and introduce mechanical devices that reduce manual labour. Extension services and demonstration sites can be established and easier credit facility for purchase of machines can be devised. Encouragement of Joint liability groups (JLGs) for procuring some of the machines can be explored by the state government and the coffee board in order to encourage small growers to procure them collectively. Similarly, informal labour sharing mechanisms can be encouraged with incentives through SHGs and other forms of group organizations. There is a strong demand from the small growers to link up MGNREG with some of the plantation operations (to begin with for tiny and small growers) as a way to cushion the cost of labour. Gram sabhas and village panchayats can take a lead role in ensuring a fair and transparent linkage between MGNREG and plantation operations. Government and the Coffee Board may take up such pilot project in selected villages in order to identify modalities of such a convergence. Another innovative way of supporting small growers would be creating incentive structure for conservation of the environment and adopting sustainable practices. Subsidizing at the input level for conservation would ease the burden of rising cost of production.

1. Introduction

There are certain stylised facts and empirical observations in relation to coffee cultivation. An earlier study (Upendranath 2010) on small holder coffee cultivation highlighted the fact that as a production system, coffee cultivation is labour intensive. Farm labour in coffee plantations requires a particular set of skills and in the light of limited options for mechanization dependence on physical labour becomes a necessary part of the plantation system. Being a globally traded commodity, global demand-supply conditions dictate price formation leading to volatility in prices and heightened market risk, leaving few options for small growers. Thus coffee production is exposed to a high level of farm risks (production and market risk).¹ Rising cost of input is identified as a major issue as the labour input accounts for about 60 per cent of cost of cultivation. This is one of the factors driving planters to a state of distress as time-bound operations warrant use of labour even at a premium price.

Simultaneously, most small growers are affected by severe price volatility. They are subject to resilience problems as means of production (in terms of line of credit, labour, technology) are sticky in response to prices and there is always time-lag to adjust to price signals. Local price-discovery and hedging mechanisms did not yet succeed in reaching the minimum liquidity with respect to small growers. An important

1. Hartmann M., and Akasha B.M., Emerging Challenges for Farm Labour in the Indian Coffee Sector. *Humboldt-Universität zu Berlin, Department of Agricultural Economics*, Division of Development Planning and Project Management, p. 1.

element in relation to production risk is shortage of labour or alternatively called scarcity of labour. It is paradoxical that there is a reported marginal increase in labour use (and labour cost) as per the official statistics over the past one decade, at the same time planters perceive shortage of labour and there by affecting their cycle of production operations.

This situation needs to be understood from the specificities of production conditions, labour relations as well as social and cultural features specific to coffee cultivation.

In this paper we explore the issues related to labour shortage from the perspective of small growers and identify the coping mechanisms or strategies adopted by the planters to overcome such problems². The focus is to look at issues from a medium to long term perspective in addressing sustainability of coffee cultivation in the region³.

This paper relies on the field data gathered during the year 2009-10 and also group discussions and individual discussions held with stakeholders during the past 2 years, including the latest round of stakeholder discussions held during October 2012– January 2013. Discussions were held with representatives of small growers associations, Coorg Planters Association, and Primary Agriculture Cooperative Society and individual planters. Methodology involved structured questionnaire as well as open ended discussions. Group discussions were held using a check list. Given that these are experiences of the

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2. It is to be noted that plantation landscape consists of multiple crops that include Coffee, Cardammom, Pepper, banana, oranges and other horticulture crops, grown under the canopy of large timber/shade trees. While in this paper we discuss labour shortage in coffee cultivation, the issues and problems relate to all other crops as they form part of the planter's economic activities.
 3. In the short run planters always attempt to solve the problem either by paying more to labour or reduce operations. These issues are discussed in the subsequent part of this paper.

planter community in relation to their coping strategies for addressing labour shortage, these are subjective and we can only infer from these experiences limited 'issue-response' mode of conclusions. Nevertheless, they do provide clues on how to move forward in terms of policy responses in addressing the issues.

Broad findings based on field data on the labour use and issues identified by the planter community are presented in Section 2. Section 3 presents the coping mechanisms adopted by planter community along with a few case-studies and suggestions in order to provide an understanding on how planters are responding. The final section sums up the study and present certain recommendations.

2. Labour Use in Coffee Plantations

A Macro Picture:

Coffee in India is grown mostly by small and marginal growers. Land holding pattern of plantation districts reveal that about 75 per cent of the holdings are below 10 hectares which is official classification of small growers. And they contribute 70% of the production. Within small growers, over 37% are marginal growers below 2 hectares (see Table 1).

The Coffee Board estimates that there are over half a million labourers employed directly and an equal number of workers in allied activities within the plantation sector. It is estimated that over 55 per cent of the labour force is women. While this is the estimate of the Coffee Board, UPASI, the apex plantation association, estimates that over a million of workers are employed in coffee plantations. Apart from hired labour, family labour is also a main stay for farm operations as over 70 per cent of plantations are below 2 hectares. Labour requirements also vary depending on the type of operation with picking season demanding more labor compared to other operations.

Table 1: Number, area and Share of Production of Coffee Under Different sizes of Coffee Holdings in India - 2007-08

SI No.	Size of Holdings (In Hectares)	No of Holdings		Area under Coffee*		Share of Production
		Number	% of Total	Area	% of Total	
I	Small Holdings					
	<2	178585	80.9	144196	37.1	
	2-4	27731	12.6	71905	18.5	
	4-10	11800	5.3	73642	19.0	
	Sub Total	218116	98.8	289743	74.6	70%
II	Large Holdings					
	10-25	1789	0.8	29829	7.7	
	>25	920	0.4	68623	17.7	
	Sub Total	2709	1.2	98452	25.4	30%
III	Total(India)	220825	100.0	388195	100.0	100%

*Provisional.

Source: Coffee Board.

Given the large presence of seasonal labour, it needs to be underscored that migration plays an important role. Hence, the labour market conditions are contingent upon the agriculture and other income earning opportunities for workers in the neighbouring districts. For example, during 2011-12, of the total coffee workers of 6.06 lakhs, about 2.57 lakhs were in Kodagu district, 1.34 lakh in Chikmagalur district, 0.93 lakh in Hassan district of Karnataka and the rest were spread across other states including non-traditional areas. There is very small increase in the total number of workers in Kodagu district, during the past 6-7 years; in 2007 the number of workers in coffee plantations totaled 2.54 lakhs while the same in 2012 is 2.57 lakhs.

From this, one can conclude that the labour absorption remained somewhat static. One reason for this situation is that the area under coffee cultivation in traditional areas remained at the same levels during the past one decade.

Big plantations (and corporations) developed a system of modern labour management with statutory provisioning. Among small planters, labour management is more informal in nature, where in certain number of workers are tied to the families over generations as permanent workers. Increasingly feminization of 'permanent workers' is observed as a phenomenon, which infact raises issues related to women's work and returns. Further a vast majority of coffee workers are from scheduled tribe and scheduled caste families. This has implications for the welfare and social security of workers as most often they are in debt-bondage relationship.

While labour absorption remained somewhat downward sticky, there is a peculiar problem of labour shortage or labour scarcity as indicated in the micro experiences of planter community. Before analyzing issues surrounding this problem, it would be useful to look at the micro level data on the labour use and how labour procurement is being carried out.

Evidences from Micro Data:

Apart from the current field work, which involved regional and village wise meetings with planter community on issues of labour shortage, some of the relevant findings based on the field study⁴ conducted in 2009 covering a sample of 275 households in 14 villages in Kodagu district and discussions with groups of planters spread across the district, representing various institutions like CPA, KPA, Small Growers Federation. Individual interviews were also conducted with some of the progressive growers.

Land Ownership

As discussed earlier, Coffee is grown predominantly by small and marginal land holders. It can be seen that majority of planters surveyed come under below 10 acres. Since small planters are considered to be those with below 10 hectares, this vast majority of planters may be considered as ‘marginal’ planters; though there is no such category formally exists in the government classification of plantations. It can be seen that only 11 percent of planters have reported having land more than 20 acres. This confirms with the pattern available in the district that nearly 90 per cent of the plantations of the district are under small planter category. The average land ownership of the sample turns out to be 11 Acres, which is around 5 hectares.

Historically, hiring casual labour is one of the important aspects of plantation based economy, even if it is dominated by small planters. This is due to the fact that plantation operations are labour intensive. An overwhelming 92 per cent of the respondents of the household survey expressed that they use hired labour. This labour comes from local, ie., within the village and nearby locations (90%). About 35 per cent of the planters reported the use of migrant labourers from outside.

4. Upendranadh C (2009) Sustainable Production and Marketing by Small Growers of Kodagu District – Karnataka, Report of the Baseline Survey, Submitted to Prakruti Bangalore.

Table 2: Land ownership of the Surveyed Planters

Land Classification	Per cent of Planters
Below 5 Acres	46
5 to 10 Acres	22
10 to 15 Acres	12
15 to 20 Acres	9
20 and above Acres	11

Source: Field survey.

About 45 per cent of the planters surveyed informed that they have labour lines within their estate which is provided to the workers for their stay. This is in contrast to earlier periods, where in almost all the plantations had labour lines. About 30 per cent of the respondents reported that they have permanent workers in their estate. This is significant, since there is divergence in the two sets of data i.e., availability of labour lines and permanent workers, which would reflect that increasingly 'permanent labour' category of workers is on the wane. The number of permanent workers in an estate ranged from 1 – 6 in about 83 per cent of households who reported having permanent workers. In most cases it has been found to be two workers on the permanent basis. In about 16 households the number of permanent labour exceeded 6 (the highest being 27 in one household).

It can be seen that on average a planter with small holding⁵ hires about three labourers as casual workers during the peak season and one during the lean season. In addition, small planters hire between 4-14 casual labourers during the peak season for their picking operations. There is considerable gender disparity in wages. The maximum daily wage paid for men during peak season is Rs.300 and for lean season it is Rs.200. For women, peak season wage is Rs.250 and lean season wage is Rs.150. This perceived 'high' cost labour is a concern for many small planters. Many

5. Small planter is one with below 10 hect. Ownership.

planters were of the opinion that such situation warrant a case for mechanisation in plantations for enhancing labour productivity. (These figures are at slight variance from the averages we derived from the case studies and interviews in 2012, but in the same range of wage differentials).

‘Labour problem’ ie., shortage of labour (especially skilled labour) is often reported as a major constraint affecting coffee production. Discussions with planters in Kodagu district are illustrative of the sentiment of the planters on the issue of rising labour costs. During the discussions with the office bearers of the Coorg Planter’s Association it was observed that the new generation today is unwilling to do manual labour and work on the plantations⁶. This was also echoed by apex bodies like Kodagu Small Growers Association as well. Other factors such as lack of discipline and alcoholism were also identified as some constraints faced by the planters *vis-a-vis* labour. All these factors affect efficiency which means that growers lose out, for example, workers misplacing expensive equipment.⁷ Similar views were expressed by technical personnel, managerial staff of plantation as well as small planters. To sum up, there is an overall observation from the field that wages are quite high to begin with (exacerbated due to scarcity) and there is no reduction in the labour intensity of the industry and such a situation may be unsustainable in terms of livelihoods of growers in the long run⁸.

The labour use pattern of small holders can be visualised along the lines indicated in the Table 3.

6. Interview with Mr. Nanjappa, office bearer CPA, small grower.

7. Ibid.

8. Various reasons are attributed for this situation like urbanization and ageing of labour. Suggested measures included mechanization but some operations still require large quantum of manual labour. On current prices basis, wages have gone up by 120% compared to 1990s (interviews with Mr. Chinnappa, A Coffee Consultant (Plantations) and visiting Estate Manager and Mr. Nanda Subbaiah, President of Maldare Primary Agriculture Cooperative Society and a small-grower.

Table 3. Labour use in Plantation Operations (for a well maintained plantation of small holder (1 acre basis of calculation) - 2012 coffee season

Plantation Operation	Which part of the year and number of days of operations	Labour use Male / female, local or out side; how much payment etc	In case shortage of labour – how planters respond
Pre-monsoon pruning	Apr-May ; 5 days of work (One acre – 450 plants – one person can do 100 plants per day)	Male – Rs 400 per day. (out side labour) (Skill required)	Labour shortage is an issue in this operation. It needs highly skilled people
Shade trimming	May end - June One person it will take ten days	Male Rs 500 per day (Skill required) (climbing trees)	Shortage of labour is more acute in this operation. There are few persons who has tree climbing skills and hence demand is more. Planters often pay more.
Cleaning (around coffee bushes)	June One person – three days per acre	Female Rs 260-300 (men busy with shade trimming etc)	Normally do not face shortage for this operation.
Manuring	June One person – two days	Female Rs 260-300	No shortage of labour

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Fence repair and vegetable fence cutting	July One labour – 3 days	Male Rs.300 per day	No shortage
Weeding - I	July One labour – 8 days	Female Rs.260 - 300 per day	No shortage. Regular workers do this
Vegetable fence cutting	Sept One labour - 3 days	Male Rs.300 per day	No shortage
Weeding II	September One labour – 8 days	Female Rs.260 –300 per day	Planters avoid this operation if there is shortage of labour or to reduce costs. The period coincides with ginger cultivation
Pruning	September One labour – 12 days	Male and female Male Rs.300 Female 260	Tight situation of labour availability.
Manuring	September – after weeding and pruning One labour – 2 days	Male and Female Male Rs.300 per day Female 260 per day	Sometimes shortage situation arises.
Pruning (rounding)	October first half One labour – 12 days	Male and Female Male Rs.300 per day Female 260 per day	Can be avoided if shortage of labour or to reduce costs

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Vegetable Fence trimming	November first week One labour – 3 days	Male Rs.300 per day	No shortage
Shovel weeding	November One labour – 12 days	Male Rs.300 per day	Shortage.
Coffee Harvesting	Arabic – Dec Robusta – Jan 1 st week 1 labour -40 days (One labourer can pick 120 Kg of fruits per day)	Male and Female Rs. 300 per day – same wage. Often paid as per kg basis. (one labourer can pick upto 120 kg of coffee)	Shortage. Outside labour required. High premium paid
Drying, cleaning and packing	Depends on picking and will be in Jan-Feb-Mar One person (regular) at drying yard - for 7 days Cleaning / packing – 1 day for one acre of harvest	Usually Male Rs.300 per day	Shortage Outside people required
Irrigation (watering)	March 1 st half 1 person for 3 days	Male Rs. 400 per day	Shortage

(Note: if permanent labour is used – Rs.200 per day is paid for several of these operations. (Approx. they earn Rs. 4800 per month (24 days). The wages mentioned are for casual daily laborers. It is to be noted that the statutory minimum wage for plantations in Karnataka is Rs.141.)

It can be seen from Table 3, which reflects a broad view of most planters contacted during our group discussions, that some of the skilled operations (pruning and harvesting/picking) face labour scarcity where in planters have to resort to higher payments or methods (of procurement) which would ensure steady supply during the period of requirement. There are few other activities, on which planters take a decision to go-ahead or not, in the sense they skip the operation in case labor is not sufficiently available or costs are going upward. Such decisions of course depend on other factors like the ability to pay, cash flow and labour availability.

It has been well established⁹ that labour cost accounted for about 45% -65% of the total cost of growing coffee, and now due to the higher wages, the production costs have inevitably increased. There is also a view that absence of second generation labour, including the children of the workers, due to improved access to education (resulting in more opportunities of work elsewhere, away from the plantations) is another factor compounding the crisis. Human resources are gradually dwindling, as the younger generation is not very interested due to their attraction to the metro cities and their belief in entrepreneurial skills (There is also a perception among youth that more earnings are possible as there would be more opportunities in cities and they feel more freedom in cities due to social anonymity).

Officials of the Extension Department of the Coffee Board have identified few hardships from the point of view of the growers, such as an inadequate infrastructure, market support and subsidised credit. To overcome the shortage of labour growers are now encouraging in-migration of labour, though there is a language barrier between the growers and the workers¹⁰. The high wage rate of around Rs. 200-250

9. Dr. Kiran Kushalappa, Forestry College.

10. Mr. Reddy, Deputy-Director of the Coffee Board Extensions Unit.

per day is due to this shortage, and that reality dictates how much more labour can bargain to receive over the stipulated minimum wage of Rs. 141.¹¹ Several growers as well as extension workers feel that encouraging in migration of workers from elsewhere (distant lands from Bihar and Assam) has a major challenge in training them. These would add to the cost of production. A repeated concern of several planters was related to the productivity of workers and their inability to complete timely operations due to the shortage of labour, during the past 5-6 years.¹² International comparison of labour costs is often invoked to show how the Indian coffee sector is highly labour-intensive, with 65% of total cost as labour input against 25% in Brazil¹³.

From time immemorial, the weather and living conditions in coffee areas are rather hostile – it continues to remain the same with high rainfall – in spite of improved communication facilities over the time. This has necessitated even the small planters to seek workers as permanent workers and create several provisions for their housing, health and education.

Changing Labour Procurement Process

Discussions with members of primary agriculture co-operative society, Maldare gave interesting insights into the labour use and processes adopted by the planter community.

Typical Small growers (below 10 hectares) employ 5 females and 3 males as workers for different operations. One or two families would be supplying the permanent workers, the others taken on a daily wage basis. In some plantations, 3 women and 2 men are taken as permanent workers in order to enhance efficiency. Most planters need more daily wage labour during the picking season.

11. Mr. Reddy interview.

12. Mr. Subbiah interview.

13. Mr. Bose Mandanna, of the Karnataka Planters' Association.

Planters indicated that shortage of labour was a phenomenon experienced since around 2007. However, most of them admitted that there was no serious shortage during the picking season of 2012, though it has been an issue for most of them during earlier years¹⁴.

Labourers are hired from far off places, as far as 50 KM away. Being a border district of Mysore and Kerala State, they are hired from neighbouring villages of Mysore and also from Waynad of Kerala. There is a very organised system of labour ‘maistries’ and jeep drivers, who bring labour from far off places in groups. This phenomenon of labour ‘maistries’ was not new to Coorg plantations as earlier researchers have reported the labour procurement process. Several studies during the pre-independence period have reported this system which has in fact become extinct after Independence. However, this new form of ‘labour maistries’ or jeep drivers is of a different kind in the sense that these people work as local muscle-men and ‘arrange’ labourers at premium for planters especially during picking season. They bring labourers (who often are in debt-bondage relation) from outside to enable planters to complete operations in a relatively shorter time span. They do take commission from both labourers and also from planters for facilitating this process of labour procurement. While outside labour work in local plantations, it is to be noted that local labourers work in plantations far away from their own villages, again due to the practices of ‘maistries’ and jeep drivers who provide advances to groups of labourers and keep them under their control. Thus local demand and supply equation is often broken due to the presence of maistries, who alter the conditions, luring the labourers by offering higher wages in far away places. They promise the local planters to supply a number of workers on time to complete operations. Thus the labour supply has become a dependent function of labour maistries.

14. Such fluctuations are due to the fact that drought in neighbouring areas affect the labour supply into Coorg. We discuss this issue further in the paper.

Typically a local jeep driver picks up a group of labourers (often up to 20-25 persons in one jeep, endangering their safety) from a village early in the morning (around 8 AM) and drops them in batches of 5-6 workers in different plantations as per the agreement with the planters. Workers travel up to 1 to 1.5 hours and reach the places of work. In the evening from around 4 PM, he starts collecting workers from different locations and drops them back to the village. In this process, he collects 'Commission' from labourers and also from the planters. He also collects the travel expenses from both sides. This way, 'jeep driver' exploits both the labourers and also the planters.

Local planters explained that this system is in practice for the past 5-6 years. Origins of this system can be traced to the fact that there is an increase in absentee-planters (who live outside Kodagu), who would like to visit the plantations over weekends and complete operations in a relatively short span of time. While such planters are not large in numbers, they do create a situation of urgency and would be willing to pay more for labourers and they rely on the jeep drivers/maistries for procurement of labour.

It is to be noted that, in earlier period too, planters used to bring labourers from near-by villages using their own jeeps. Such a system enabled reducing transport cost as well as time for labourers who used to reach the work place and be dropped by the planters at their villages in the evening. Those were somewhat stable relationships between planters and workers and there used to be a mutual trust. But now the current phenomenon of dependence on 'maistries' is more due to the fact that planters and labourers do not have a stable relationship.

On the supply side, children of labourers (who passed 10/12th classes) are also not keen to work on plantations, since they consider it to be below their dignity. In fact, in most of the company estates youth move around without work as their parents are permanent workers. It is

reported that they often become suspects when any theft or other anti social activities are reported.

As discussed earlier, migrant labour plays an important role in coffee plantations. While earlier studies point towards migration of labour from dry districts of Tamil Nadu, Karnataka and Andhra Pradesh, what is observed during the past decade and a half, is influx of labour from eastern India, especially from West Bengal, Jharkhand, Orissa and North-Eastern states. It is estimated by an experienced planter that in Napoklu area, there are at least 30,000 workers from north India as labourers¹⁵. While company estates procure labour from those parts in order to meet the labour shortage, a phenomenon of small growers resorting to labour procurement from such far-off places is somewhat recent. Most of the outside labourers who speak Bengali claim that they are from West Bengal. But some local planters suspect that they are from Bangladesh, illegally moved into India in search of work. While there is no concrete evidence on such a sensitive issue, it is to be noted that such observations often may lead to unnecessary tensions in the local area. Some Planters suspect that some of the law and order related local disturbances and fights are due to the presence of outside labour, especially from North East and Bengal. Some planters also complain that these labourers (and their kith and kin) are responsible for small and petty thefts of Coffee and Pepper. However, there are no serious evidences to substantiate such claims.

Company plantations like Tata Coffee have presence of labourers from North East and Bengal for a long time. But the same phenomenon was not so wide spread among small growers, which is picking up now. While many planters are getting labour from such far off places like North East and Bengal, there appears to be no systematic process. Most

15. The figure may appear to be high, but it is the perception shared by many planters and now there is spread of imported labour across the district, not restricted to Napoklu area.

of such hiring is through word of mouth as one labourer brings relatives or friends. However, we came across a few planters having labourers from North-East for the past 15 years or so, and they have registered the names and addresses with the local police station and also provided the labourers with identity cards so that they do not face any problem in the local areas.

From discussion with the planters, it was transpired that such an organised system is necessary as there are reports of mis-conduct by the outside labour and also often such labourers are subjected to humiliation and abuse by local anti social elements. Inter-State Migration of Labour Act can also be invoked and implemented effectively in order to streamline migration process. There can be institutional mechanisms with the cooperation of Labour Departments of respective state governments in order to exchange information, provide safe-guards and also ensure continuity and steady supply of labour. Such an approach would benefit planters as well as labourers.

Quality of Work

There is a general complaint (universal) that the working hours are shrinking due to this system of maistries supplying labour to planters. It has been observed that earlier period (say 20 years ago), workers used to start work at around 7.30 am and work till about 5 pm with a break for lunch. Now with transporters bringing workers the work starts only by 9 am and by 4 pm they wind up the work and wait for the transport jeep to arrive in order to go back to their villages. Most planters complain that workers hardly work for about 6 hours a day!

Another aspect is related to quality of work. There is a complaint that quality of work deteriorated due to the fact that close supervision is not done by the planters. This was not the case earlier where the planters used to be in the field almost all through the day. Such a situation has altered due to the easy communication and also the fact that most planters

do not stay all the time in the estate houses (many live either in Mysore or Bangalore).

While there are no immediate solutions for such an issue, there is a general feeling among the planter community that productivity-linked wages and incentives would work to some extent with a closer supervision. It is estimated that at least 10% increase in output can be achieved through closer supervision.

3. Manifestation of Labour Shortages and Coping Mechanisms

Technological advancement in plantation operations is identified as one possible solution. However, it is not clear as to what extent it is a workable solution.

Many small planters view that such solutions are not affordable for them. There is also some amount of hesitation and uncertainty on how such labour saving devices work. Planters estimate that the annual cost of input is about Rs.25,000 per acre per year (at the rate of 125 person days of labour, fertilizer, pesticide, organic manure)¹⁶. The initial costs of investment for mechanisation is high and planters feel that they would not be able to reduce the costs of labour substantially through mechanisation given their smaller scale of operation and high initial investments. Equipments such as weed-cutters are available in the market, but their utility and efficiency is not well known to the planters. Planters feel that weedicide is cost effective and availability of organic weedicides with less residual effect is being used on large scale by small growers. However, planters admit that they are not sure of long term effect on the soil. If they were using weed-cutters or manual labour, they require 4 to 5 labourers to complete one acre in a day and in

16. This cost has in fact increased during 2013 season as the cost of fertilizer has increased recently.

contrast, by using sprayer they can complete the operations in one day by one labourer.

Availability of skilled labour is a major issue and it is linked to the shortage of labour. It is because new generation of workers are not coming in large numbers, the skilled pool of workers remained static or declining. Due to this situation, there is lot of demand for skilled workers and hence the shortage.

During the past planters used to practice exchange labour or helping the neighbour by sending permanent workers or offering own service in others' fields in exchange of the same reciprocity in need of the hour. Such a system is becoming extinct as planters do not have such close relationship within the community anymore, mainly due to urbanisation and absentee-planters. Small holders generally felt that need to institutionalise such mechanisms through organising of the small holders.

An interesting indicator to reflect labour scarcity according to Codagu Planters Association, CPA, is decline in labour disputes. This would mean in some ways the labour coping strategies are individualistic and there are no community bargaining situations (either as union of workers or planters).

A major complaint of planters is related to the public works program and its implications on labour scarcity. Planter community feels that due to public works programmes in drought prone districts of Andhra Pradesh, Karnataka and Tamil Nadu labour migration to plantation areas has come down. This of course is corroborated to a certain extent by other studies conducted in these states as well. Further, there is also a feeling among the planters that due to public works programmes, local labour (those who live in Kodagu villages) are also not very keen to take up casual labour work in plantations as they prefer public works, which is perceived as payment without hard work. It is

also observed that government welfare programmes like cheap rice and kerosene oil also helped farm labourers to get their basic needs fulfilled at relatively cheaper cost. This, according to planters is a major contributory factor for the shortage of labour, as labourers prefer to seek jobs elsewhere or even remain idle once they are assured of income sufficient to meet their basic needs. While there is some amount of exaggeration in this depiction of behaviour of labourers, it needs to be acknowledged that the bargaining capacity of the labourers (and their choices) have increased due to MNREGA as well as programmes like cheap rice distribution (Rs.3 per Kg for poor families). There is a need from the planter's side to take into account this factor and engage in a meaningful negotiations with labourers in terms of pay and working conditions in order to ensure that they are retained and plantation operations are conducted in a timely manner.

Planters are of the view that mechanisation could be considered as an option to address the problem but this seem to hit road blocks for various reasons including the limitations due to geographical terrain, climatic conditions, high capital costs, inhibitions on the effectiveness of tools and equipment in terms of improving labour productivity or reducing labour input. There needs to be more pro-active support from the Coffee Board in this direction. There is a need to experiment on the use of mechanical equipment and labour saving practices. Such demonstrations would help planters appreciate their utility. For example, it is often practised by planters to use the harvester and engage two workers for picking. Instead of this, some planters experimented with two machines and three workers, which was found to be more economical. Such innovations need to be propagated in order to build confidence of the planter community on the use and efficiency of machines. Also buying additional (spare) battery for Gulliver (harvester) is found to be more effective in terms of productivity. Such simple adaptations would be necessary.

Further, financing of equipment purchase is one aspect that requires serious attention as some experiences in ponnampet area reveals. There, a few enterprising small planters took loan and hired battery operated weed cutters and started hiring them to planters (with themselves as equipment operators). They charge Rs.1200 per day (for weed cutter and labour charge) and one acre can be covered in a day. While equal amount of labour cost to the planter to complete weeding (by employing 4 workers), the cost saving can be achieved if the planter hires two weed-cutting machines to complete entire operations in one day. Initial investment for weed-cutter would be about Rs.26,000. While planters are using chemical and organic weedicides as a labour saving mechanism, the long term impact on the soil is not yet been ascertained. (of course these are not part of the banned pesticides).

Joint Liability Groups can be formed with planters / or enterprising workers and such equipment like weed cutters can be procured on hire-purchase basis. There is a need for coffee board to look at some of these experiments.

Use of Gulliver – the harvester: it is about 6 Kg in weight, with battery operated harvester. With one machine, apart from operator, one more person is required to spread the mats below the plants and ensure that the cherries are collected into heaps and then transport them to a central location.

In a manual operation of picking, in a typical plantation of 8-10 acres, harvesting by workers would take place for about 20-25 days, with workers (about 5 workers) picking about 1000 Kg per day. Such a labour intensive operation can be simplified if the harvester is used.

With one machine, one can collect about 1000 Kg of cherries in a day. And it would become economical if 2 harvesters are used with one labourer to spread the mats and transport the cherries. Such economical use of labour is proven to be beneficial for the planters. While there are

enterprising planters who are using harvesters, in general there is skepticism on its efficiency. Some planters complain that in order to have better harvest with the machine, the plants should be of 5ft height as the machine cannot reach beyond that height. In most parts of Coorg the older plantations with Robusta are tall plants and only the new varieties are shorter in height. So, one of the pre-conditions for effective use of harvesters is to keep the plants at a height of around 5 ft. It is estimated that a JLG with 3 weed cutters and 2 harvesters would be a good unit for viable hiring out and entrepreneurs can ensure money.

It is observed that the 'panic' situation of hiring labour at the same time by paying high wages and the dependency on labour can be reduced to some extent by using technology. Some planters estimate that 2 month long picking process can be reduced to about 15 days if appropriate use of technology is adopted by planters. Such a reduction in number of days of labour use (may be with a marginal increase in units of labour) can be an advantage in a micro setting where the planters can sequence operations in a more comfortable way.

Planters are of the view that financing self-help groups of planters to procure machines and use them on hiring basis amongst them can be tried out on an experimental basis in order to encourage use of machines. This is something that Coffee Board and NABARD can experiment with coffee growers.

One important factor attributed to labour shortage is 'panic' behaviour of planters. It is true that plantation operations are time-bound and only a short window of time-span is available for a particular operation to complete. Especially in relation to picking, planters often end up in a panic situation as they would like to start picking operations at the same time, creating a scarcity of labour. Unseasonal rains, absentee-planters, volatility in prices and such factors contribute to this situation. When all planters of a particular region demand labour for picking, that results in jeep-driver/ maistries to exploit the situation and they bring

the labour from outside. Since the communication became much easier, it would be a comfortable task for jeep drivers / maistries to arrange labour (at high cost) in a relatively short notice.

Growing concern about the activities of jeep-driver/maistries is evident from the fact that there have been several meetings between law enforcing authorities (police, road transport officials), planters and jeep drivers' union on how to regulate their operations. Reckless driving, accidents and coercive methods were reported on jeep drivers who often become a law unto themselves.

Planters further suggested that there is a need to enhance human resource development within plantation sector as a whole. Similarly giving certification and attaching 'value' to the work of plantation workers would enhance attraction to the plantation work. On the lines of ITI, there is a need to establish training institutes for plantation workers so that professional work ethics and practices can be developed.

Workers' attitude and seriousness towards 'work' is often reported as a major stumbling block in adoption of technology as well as improving productivity. Enterprising workers aspire to become a labour maistre and often build networks with other planters and workers instead of engaging in the work. Similarly, resistance to use machines also comes from workers who would not like to carry machines on their back and work.

While small planters are finding difficulty in hiring labour and managing affairs, same appears to be the case even with large corporate plantations. Labour shortage is reported even in those plantations, especially in case of hiring casual daily wage labourers during picking season. Company executives pay advances to jeep drivers and seek their help in procuring labour.

Labour shortage is a problem for large planters as well. Field visits to corporate plantations have indicated that they are finding it

difficult to get workers. Shortage of permanent labour is a problem for them also. Often their executives pay advances or loans to workers to retain them and their pay and incentives are linked to labour procurement.

Co-operation and Consolidation Possible?

While considering the alternatives, corporate plantation or consolidation of holdings is often suggested as an alternative strategy. It may not be highly relevant in the case for Coffee due to cultural factors as well as the type of land holding in the district. Small Producers Co-operatives can be explored with a serious effort in some areas, particularly from the perspective of improving productivity and reducing operational costs. Such mechanisms can be used to incentivize conservation and create markets for conservation. (producers co-operatives in marketing were not a successful experience in Coorg).

However, we need to acknowledge that apart from cultural diversity, given that land holdings are of diverse size and this makes difficult for neighbours to adopt co-operative strategies. Family partition and consequent decline in size of holdings and absentee-planters is also a growing phenomenon resulting in planters adopting their own individual strategies to cope with labour shortage. However, some planters follow the strategy of 'pay more and get work done' which may not work for long term sustainability and there is a need to adopt co-operative strategies that makes plantations viable.

Fixing Wage

Wage rate differs from place to place and this is one reason for the movement of labour from one area to other. For example, in Siddapur area (south Coorg), planters from same localities pay differently to workers during the picking season. Depending on their long standing relationship with workers such wage contracts are determined. For example, the payment ranges from Rs.1.70 per Kg to Rs. 2.25 per Kg depending on whether the labourer is having a long term relationship or

not. There is no negotiated wage for the entire area (village or taluk) and this makes it difficult for planters to engage in a transparent and open procurement process. Often planters out-bid each other and offer slightly higher wages to procure labour in order to complete operations in time and such practices give scope for jeep-driver/ maistries to exploit the situation. Anticipation of rain, berry borer, market vagaries, financial situation of individual planter households the fear that they may not get workers, all these play critical role in decision of the planters to pay higher amount and get workers.

In Migration

In-migration and migrant labour formed the back-bone of plantation economy from time immemorial. But what is new in this phenomenon is labour from Coorg (or youngsters from labour households) are moving to other cities (like Mysore, Mangalore and Bangalore) seeking work. This is something that can be borne from secondary data, as there has been no increase in the number of casual labour in the district. Construction boom, industrial and infrastructure development activities in major cities of Karnataka are contributory factors for this phenomenon, which is coupled with improved road infrastructure and transport facilities. Services sector development in the cities would also mean more youngsters joining in the service sector in comparison to other industrial or production sector. In small towns, there has been a shortage of skilled mechanics and repairers of agriculture equipment, small motors and machines in the district as most skilled workers moved to cities meeting the growing demand there.

Production Related

There are several changes that occurred which have implications for labour use, cost of labour and its perceived shortage. Firstly, free market operations resulted in volatility in prices, which has resulted in 'no-guaranteed' income for small planters. As a result there appears to be

a dis-connect between income and investment decisions. Planters are also reluctant to engage in any post-harvest processing and most prefer to dispose green coffee (cherries) at the farm gate. Such a behaviour often results in ‘panic’ situation *vis-a-vis* labour procurement.

Free trade and uncertain investment decisions has also meant little or no improvement in terms of production quality and productivity. It can be seen that productivity of Coorg coffee (Robusta) on average remained at 600 Kg/acre level for a long time though there is potential to reach upto 1000 Kg/acre (Coorg yields are better than other coffee areas). Investment in improving farm operations, better plant material, mechanisation would help in improving productivity there by reducing the labour cost ratio and this has not been the practice in most plantations.

Inheritance laws also played critical role in partition of family properties and that led to absentee-planters. There are two effects. One, size of the holdings became small and that meant some extent non-viable. Second absentee-planters hiring labour at high cost and creating artificial scarcity and hike in labour cost.

Planters are of the view that though there used to be traditional ‘moyyali’ exchange of labour for paddy cultivation, especially transplantation and harvesting, such practices have become extinct now and there is so much individualism that any arrangements of labour sharing would become very difficult unless institutionalised system of labour exchange is experimented. A model of labour bureau or clearing house in terms of maintaining demand and supply information may be helpful. Such a practice on the lines of (labour net model of construction sector in urban areas of Bangalore) can be tried out, provided working conditions are streamlined.

Contracting out of Crop

One of the coping mechanisms to tide over labour shortage and concomitant issues of uncertainty by planters has been ‘contracting

out the crop'. In this model, entire harvest is given at a fixed price to a middleman / agent who brings their own labour and conduct all picking operations and transports the cherries to their own destination. Such a contract, is being given to even some of the company estates. For example, BBTC gives Rs.26 per kg of cherries of robusta (for 2012 crop). This practice is mainly taken up by small time operators.

Leasing out the crop on a contract basis often helps the planters but the price fluctuations sometimes lead to losses as well. During our group discussions, small planters observed that it is an experiment which can be taken up by absentee-planters, but not by someone who is regularly handling plantation operations.

Cutting down Operations

Coping strategies for labour shortage appears to be different for various planters. For some, it is a situation of paying more for labour and get the work done; for some others, cutting down some farm operations – for example instead of three times pruning, they end up doing only twice; for some reducing the area of coffee cultivation so that work can be done with less labour. All these have implications for production and productivity. Another possibility, that is indicated by a few planters is to remove some of the older shade trees so that operations like branch lopping can be avoided. Such situations would result in reduction in shade and would also have long run environmental implications.

Some of the operations that planters reduce / defer in light of rising labour cost include, shade regulation, planting, handling, pruning, weeding, fertilizer application, pepper harvesting which would mean a long-term decline in productivity.

It is widely appreciated that Coffee in Kodagu is cultivated under shade and environmental protection and promotion are part and parcel of coffee cultivation, especially in this Nilgirs bio-sphere, which is a

biodiversity hot spot. Hence, planters are of the view that plantation operations need to be viewed as part of environmental protection and there is an argument that such operations, which are common to all planters can be subsidised by the government through public works programmes (MGNREG) to enable planters reduce the labour cost. Some of the private lands of small and marginal planters can also be developed through MGNREG. Such integration to farm-work is being considered in other states like Andhra Pradesh and Kerala, and there is a case to consider this integration in Coorg plantations as well. That would enable local people to work in local areas in a more productive way. The concept of paying for environmental services is being practiced elsewhere as part of environmental conservation and hence there is a strong case to provide wage-subsidy at the input side. (normally paying for environmental services (PES) type of arguments are seen from the perspective of price premium (through fair trade markets) – but given the high price volatility in international markets for coffee, we argue that input subsidy is more predictable and sustainable for the planter communities).

There is a need to develop an objective criteria for such a input subsidy (in terms of wage subsidy) for conservation like the tree species, density and varieties of trees, soil and water conservation, canopy – de-branching, handling of bushes, quality of plant material, use of organic weedicides etc¹⁷.

Labour migration needs to be regulated and an institutionalised system is necessary. It is to be noted that the presence of maistries is a phenomenon which is different from the way they operated during the British time and hence there is a need to relook at them. Suitable regulatory mechanisms need to be in place in order to address these new emerging issues.

17. It is to be noted that K Kasturirangan Committee to study the WGEEP report recommended this approach.

The wage differential between local and outside labour is one factor which is contributing to the hiring of labour from outside. While local labour are given on average Rs.220 per day as wage, outside labour would be available for Rs.150 per day and would be more reliable as they stay on the plantation (people from Bihar, Orissa, West Bengal). Planters feel that giving housing and other provisions to outside labor is not a costly affair as their requirements are very minimal. But implications of such arrangements need to be assessed from the point of social, economic and cultural factors. Not only issues of productivity and work practices, social adjustments and other factors also play an important role. Further study on the long run productivity and cost-benefit analysis of such labour practices need to be conducted as there are already some indications that outside labour (especially from Northern/Eastern India) are not as productive as local permanent labourers.

Given that time-bound operations are a must for plantations, any delay would affect productivity and labour availability is a major uncertainty that planters face. It is for this reason that they pay premium and often give advance money to jeep drivers and seek their assurance for availability of labour from neighbouring villages / districts.

For Arabica plantation, for every one acre 1 unit of labour is required for a period of about 240 days; the same for Robusta is 0.5 units of labour for a period of 240 days. It is for this reason that maintaining Arabica is more labour intensive, but Arabica fetches more price when compared to Robusta. (Tata Coffee appoints labour on this basis - per acre one person per year).

While labour cost in India is about 65% of input cost, the same is 25% for Brazilian plantations. There are many reasons for this. The first and foremost is that in India all its coffee are under shade grown with difficult terrain. Mechanization is very difficult in India as the terrain sets limits to the development of pathways inside for easy movement of

motored vehicle. This itself is a major constraint and it would mean that all operations, including transportation has to be done by manual labour. From a positive side, it would mean that planters of India are preserving environment and growing coffee in tandem with forest and preserving ecology and environment. It is in this context that the demand for wage subsidy is justified as that would reduce the labor costs to a certain extent.

4. Way Forward

Improving production conditions and marketing are also important to enhance incomes of planters so that they would be able to absorb rising labour costs. Majority of producers (small growers) disposes coffee as Cherry, Parchment at the farm gate to the local traders with whom they normally have long period of relationship. Agents, curing works and exporters are often inter-related through the ownership as agents work on behalf of curing works and most curing works are set up by exporters. Information transmission is done through local agents who would be in-know of price situation as well as the production conditions. This in a way helps more often the exporters. Small growers are subjected to price volatility as their withholding capacity is low and they have commitments to traders as most often traders advance money during periods of shortage of cash flows for production operations. Concessional credit supply and line of credit are some of the interventions that can be thought of in this context.

Coffee producers are not organised in a systematic way even though there are few producer co-operatives, they are not very active and are not in a position to take any marketing initiative or value addition that would enhance producers' share. The experiences so far have not been encouraging. There is a need to instil confidence about co-operative societies among coffee producers. Informal Joint liability groups can be one step in this direction.

There is scope for planter's co-operatives to take up secondary processing in order to enhance value and also create a brand. Self certification, origin specialities and geographical indication can be explored. There is a need to build incentives for conservation as some of the certification agencies advocate price premium for conservation. While we argue wage subsidy at the input side, the scope for price premium can also be explored. But at the same time the cost of certification should not be prohibitive and self-certification by the planters need to be acknowledged. Similarly, as indicated in an earlier paper¹⁸, there is a need to relook at the income tax provisions related to coffee processing activities (and incomes there of) so that small growers would be able to make investment choices with respect to entering into secondary processing.

There is also a need to explore and educate planters in direct participation in marketing. Use of electronic marketing platforms like MCX and NCDEX can be encouraged and some of the medium and small planters may benefit from such interventions. In fact, the erstwhile Coffee Futures Exchange of India has not been successful due to low response from planters as they did not understand intricate marketing operations. There is a need to educating growers about these new marketing platforms.

Improving Production Environment

While the area under coffee is stabilised, there is a need to create a conducive production environment. From this perspective, production instability needs to be addressed by the policy makers so that efficiency is brought in. Renovation of water bodies, soak pits within the estates, planting of native varieties of trees can be undertaken by dovetailing plantation works with public works program. Also improved plant varieties, silviculture operations would also enable productivity gains.

18. Upendranadh, C & Subbaiah, CA (2011).

It is by default that large number of coffee growers conserve environment in Coorg. Even though coffee co-exists with forest and vegetation, green canopy (unlike countries like Viet Nam or Indonesia), such environmental conservation measures are not factored into pricing in the mainstream coffee markets. However, government needs to account this and provide premium as conservation incentive. Markets for conservation (like carbon trading) are becoming in vogue and there is a need to engage with this subject at the policy level and identify mechanisms that would compensate coffee growers. Such measures would stabilise incomes of the producers.

There are host of other incentives for stabilising production like rain fall insurance, weather based insurance, replanting subsidy, water augmentation support, support for pollution abatement measures etc. All these need to be propagated and small growers are encouraged to avail such incentives. Mechanisation is another area which needs serious attention.

Coping Initiatives

Perceived and real shortage of labour as our analysis and interactions with planters point out is affecting the individual household economy of small and marginal planters. While large planters are somehow able to cope up with the situation (due to their ability to invest more labour costs or withhold the produce for better price), small and marginal planters due to financial constraints are not able to withstand the situation of rising labour costs. With rising labour costs their financial viability of cultivation is getting affected on account of the smaller size of their holdings along with poor infrastructure and inability to invest in mechanisation.

Improving production conditions are also a challenge for small growers as they are not able to invest sufficiently though there is tremendous potential to increase productivity. Adaptation to technology appeared to be a major deterrent.

There are multiple reasons behind labour shortage. Some are external to the coffee sector and some internal. Given the changes in the broader local and regional economy, there have been increased off-farm employment opportunities which attract youth to move into construction, small/petty services, trade and etc. These are strong pull factors. The result is that coffee planters have started experiencing shortages of skilled labour.

Reducing wage bill appear to be one of the concerns and the ground reality is that there are limited options. Limited scope for introducing technology (that is labour saving) is repeatedly identified as one of the production constraints. It is estimated that labour component accounts for almost 65 per cent of the cost of production. Apart from non-availability of labour for certain operations and peak season works like picking, ageing labour is also affecting labour productivity. Experiences of coping strategies from this situation are varied, including paying higher wages, bringing labour from outside, resorting to the support of jeep drivers/ maistries, giving entire coffee harvest at a fixed price etc. Each of these have pros and cons, which have been discussed in the paper. What emerges from the discussion is that a pro-active role of intermediary agencies is necessary in order to address these complex issues. Coffee Board's role in promotion of innovative practices for labour procurement, improving labour productivity and production conditions etc., are needed.

Higher income realization for coffee is one factor which could reduce the burden of rising labor costs. This calls for improved quality and productivity along with promotion of Indian Coffees (quality parameters like hand-picked, shade grown) in global market, self-certification mechanisms etc to cope up with rising cost of labour.

From the labour point of view, social security is an area of concern, particularly for those who work in medium and large plantations as permanent workers. Still improvements are needed in this area, with

government investments in education and health. From the planters point of view, public provisioning of basic services would ease burden of labour maintenance (and costs). It is to be noted that plantation crops are taxed and hence the demand from planters for public provisioning of basic services in plantation areas. There is a need for further studies on this aspect since there is insufficient evidence on several of these issues.

From among internal factors, panic rush to complete farm operations, especially harvesting; absentee (or weekend) planters who are willing to pay higher wages for assured labour, presence of exploitative jeep driver/maistries are few issues that contribute to high labour cost. The issue becomes compounded as the productivity is shown to be on the decline inter-alia on account of reduced number of hours of work per day. At the moment, planters outbid each other for securing available labour. Mechanisation and attracting labour to plantation work (providing respectability and formal training) need to be devised with the support of the planters' community. Pooling of labour on collective basis and rotating labour across the neighbourhood plantations are some of the options that can be explored. Seeking labour from elsewhere (north east and east India) is also being experimented and the results are so far mixed. Also such labour would require training and also social implications of such long distance migration (to remote areas) need to be studied further.

It is well known that plantation sector is exposed to severe crisis due to erosion of international competitiveness. As noted by the Taskforce on Plantation Sector (2006), globalisation and accompanying trade liberalisation has led to sharp decline and volatility in prices of many plantation crops which in turn has inhibited investment in the sector.

Consequently, the plantation sector, which generates massive employment especially for women labour, has become economically and socially unviable. Labour shortage in plantations has put the industry

in a challenging situation. Implementation of the National Rural Employment Guarantee Programme has rather created more job opportunities outside the plantation sector, especially in infrastructure, and public works, workers are moving to greener pastures. This has contributed to large scale absenteeism in the plantations. Hence, one may fear that if the present trend holds good in the years to come, the problem of labour shortage in plantations would undoubtedly affect the survival of the industry. These cases may call for the government to streamline the NREGP in such a way so as not to compete with the plantation works. Shortage of labour coupled with low productivity, increasing cost and eroding international competitiveness of the sector, the possibility of long-term survival of the plantation system is rather depressing.

While commenting on the rising wages of farm labourers, CACP recommends linking MGNREG with agriculture operations and thereby enhancing productivity in public works. It recommends;

“Now that the scheme (MGNREG) has been in operation for 7 years, is there a way to make it more productive and less dole oriented? One of the ways to do this could be that MGNREGA operations are dovetailed with agricultural operations, wherein say half of the current market wage rate is paid by the farmer and the other half by the Scheme. This would help agriculture labour to earn more than what MGNREGA offers, and also help the farmer save on labour costs, while simultaneously ensuring that the labour remains productive. Higher labour productivity, with contained labour costs for the farmer, will help moderate the ‘cost push’ factor in food inflation. So it can be a win win situation, and can be coordinated through panchayats.” (Gulati, A et al 2013, p.8).

This perspective is widely shared within the plantation community as well and hence requires a serious consideration from the state government as well as central government.

The issue of labour shortage in the plantation sector is indeed an important issue to be studied in detail by the Coffee Board as well as the state government departments of Labour and Rural Development as it involves thousands of planters and lakhs of plantation workers. The shortage of labour could be to some extent addressed with more mechanisation and technological advancement. As Hayami (2004) argues that ‘...if India could follow such a mechanised system, a tea estate of 100 acres could be managed by less than 10 permanent labourers compared with about 120 labourers being used currently. However, such a process of mechanisation based on high capital intensity is too far away from India’s vision’ .(Sumitha, 2011) While this is an assessment for Tea sector, we do not have any ready estimate or assessment with respect to Coffee sector. This research gap need to be filled in order to understand the situation of labour shortage and its response.

What we know from the planters perspective is that their future is bleak with respect to improving productivity in order to absorb rising labour costs and the current path appears to be in the direction of abandoning plantation (at least reducing the area to begin with) as a response to unsustainable costs of cultivation and labour shortages.

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