# Factors Associated with Labour Supply for Tea Plantation and Productivity: A Case Study of Tea Growers in Meghalaya

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## ABSTRACT

The present study was conducted in the Umsning block of Ri-bhoi district of Meghalaya, to identify the problems being faced by tea growers in respect to labour supply. For this study data collected from 40 selected respondents involved in tea cultivation in the study area and from the Tea Development Centre, Umsning where the growers takes their harvested fresh leaves during the years 2004-2010. It revealed that the implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), affected the supply of farm labour adversely and it reduced farm labour supply for tea growers. The other factors affecting to supply of tea labourers were migration of rural people to urban areas, self-employment and diversification of farming towards others crops like strawberry etc. Because of these factors, the labour wages have been increased significantly. Hence the productivity of tea at large farm has been decreased drastically; all the activities were performed by labourers on large farms.

Key words: Labour, Supply, Tea, Plantation, Grower, Productivity

## **INTRODUCTION**

Labour is an important input in the agricultural sector. In India, the labour force was 520 million people during 2009-10, which is likely to increase to 574 million by 2010-15 (Government of India 2010). The 2001 census of India defined agricultural labour as any person who worked on another person's land only as labourer, without exercising any supervision in cultivation, the wages may be in cash or share of produce (Government of India 2011). The portion of agricultural workers to the total workers has been declining over the years, while the corresponding ratio in the secondary and tertiary sectors is increasing. Pursuant to this, following impacts have been predominantly noticed in agriculture in recent years: reduction in cropping intensity and changes in traditional cropping pattern. Another matter of concern is that in the sociological perspective, the vocation of casual agricultural labour is considered to be the last resort and hence preferred only by people who have no other means of livelihood

(Prabakar 2011). Tea (Camellia sinensis syn; Camellia thea) is a perennial plant, and it is consumed as a beverage after brewing. It is the second most popular and cheapest drink in the world after water. Tea industry makes a vital contribution to the economy of the producing countries. Two specific features of this industry are firstly, the high proportion of women in the labour force and secondly, the employment of child labours. Tea is regarded as one of the items of essential consumption. Hence, stabilisation of its price in the internal market is necessary because an abnormal increase in price will affect the poor. The producers are mainly developing countries with large pool of low cost labour (Hicks 2004). A major determinant of yield and cost of production in each country is labour productivity. Labour costs account for around half of the unit cost of production and approximately 75 percent of that labour cost is on plucking. Women constitute more than half the labour force, which is quite contrary to the trend in other industries in the organised sector where the employment of women is declining. Tea has occupied an important place in Indian economy for

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the last several decades and tea industry is one of the most important agro based industries which provides direct employment to over one million workers. Unlike other agricultural crops, tea provides the highest employment per unit of arable land.

The economy of Meghalaya is mainly focussed on agriculture with 70% of its population depending on agriculture and nearly  $2/3^{rd}$  of the total work force engaged in agriculture. Only 11 percent of the total geographical area of Meghalaya is under cultivation. Agriculture in the state is characterized by limited use of modern techniques and low productivity. Suitable climate and soil have prompted many farmers in Meghalaya to take up developing tea gardens and are reaping it rich from the proverbial 'Two leaves-n-a-bud'(The Hindu 2010). The state agricultural department, Government of Meghalaya provided seedlings of tea plants as free of cost to encourage the tea plantation in the state. Apart from it 50 percent input subsidies on pesticides and ₹15000 per growers for an area of 2 ha tea cultivation was provided as an assistance to encourage the tea growers for tea cultivation in the study area as well as in the state. Consequently, the number of tea growers in the state is about 500 (Government of Meghalaya 2010). In recent years there is scarcity of labour in the tea garden which affected the growers to a large extent particularly in Ri-bhoi district (The Sentinel 2011). The State Govt encourages the farmers to grow tea with in an area of 2 ha but the increase in acreage of the planting area irrespective of the supply of labours is the primary reason that enhances the constraints of labour scarcity. The study was conducted to find out which category of farmers are highly affected by the problem and the factor constraints.

## **MATERIALS AND METHODS**

The study was conducted in Umsning block of Ri-bhoi district of Meghalaya. As Umsning was selected purposively as the tea growers were easily approachable for the researcher to have first hand primary information. A list of tea growers was prepared and found 100 numbers of tea growers in the block and, 40 farmers were taken in which 15 were of small (1-2 ha), 15 were of medium size (between 2-4 ha) and 10 were of large size (more than 4 ha). Five villages, *viz.* Nongthymmai, Syad, Sohlya, Umsaitsning, and Zero point were selected. Secondary data on production during the period 2004-2010 were collected from the farmers and from the Tea Development Centre, Umsning where the farmers deposited their produce on a daily basis. The primary data were collected through personal interview method on a pre-tested questionnaire for the year 2010-2011. The secondary information was collected from various sources like newspaper, reports, research papers and publication, journals, State Govt publication and the Internet. Simple average method was used to analyse the category wise average productivity and graphical presentation was applied for presentation the results.

#### **RESULTS AND DISCUSSION**

The farmers in all the categories were adult in the age group between 61-78 years. The proportion of the graduate growers was highest in the large category, the medium and the small growers were between primary and higher secondary. The family size is all nuclear. The small farmers adopted farming as their main occupation, medium farmers were mainly intermediate between farming and services where as large farmers were mainly in service.

It is observed that the production trend increases in the up-ward direction from year 2004 to 2010 (Fig.1) on small category farms. The farmers reported that for maintenance of small area (1-2 ha), 1-2 labours are required which can be easily met within the family members. Labour problem is not an issue of consideration in such category of growers. The small farmers besides the cultivation

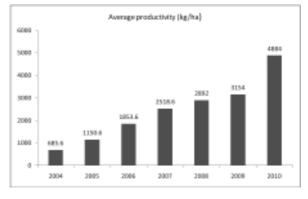


Fig. 1: Average productivity of small farmers 2004 to 2010

of tea also grow strawberry, pineapple, ginger etc which additionally bring more income. The children of the farmers who cultivate solely tea in 1 or 2 hectares area could accomplish some work in the farm before going to school. The farmer whose family size is large and can maintain the farm, in turn work in the large farmer's farm.

It is observed that the productivity increased from the year 2004 to 2007 and then there was an abrupt decline between 2007 to 2008 from 2199.5 kg ha<sup>-1</sup> to 704 kg ha<sup>-1</sup> on medium category farms. In response to reasons behind it farmers reported that due to non availability of machineries and small implements, all tea garden work was performed manually. The available labours demand higher wages which increased by 60 percent in case of women and 120 percent in-case of men. This further leads to low returns to the tea growers. According to the estimation, to maintained 4 ha of field, 8-10 labours were required but the existing supply is only 3-5 numbers. The gap between demand and supply of labour leads to lowering of production and hence affect the productivity (Fig. 2). Farmers put forth that if the returns continue to be dampened, diversion from the farm might occur.

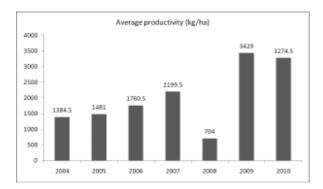


Fig. 2: Average productivity of medium farmers during 2004 to 2010

The productivity increased up to 2008 in large farms later on it decreased drastically and again it started to increase. As tea growers reported that they could able to manage the labour easily during 2004 to 2008 but later on the supply of labour decreased and it affected the production of tea adversely (Fig. 3). Further, the tea growers reported during survey that 10-12 numbers of labourers were required to maintain the 6 ha of tea farm, but now a days only 3-5 number of labour supply is available. Because of this large tea growers could not performed all the tea garden activities such as intercultural for weeding and it decreased the production of tea 30-35 kg/ day from 120kg/day on large farm. The skill labours with the availability of alternative means of earnings move out of the farms. As the plucking of leaves required skilled labours, new labours are less efficient which in-turn reduced the yield.

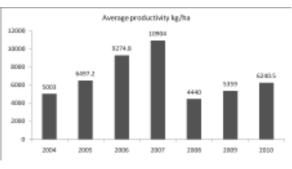


Fig. 3: Average productivity of large farmers during 2004 to 2010

## Constraints

From this study it was found that the tea cultivation purely depends upon the availability of the manual labour. It indicates that labour is a vital input for the better production and return in tea garden. Among the three categories of farmers (small, medium and large) the large farmers were highly affected because of the labour scarcity followed by the medium farmers. The major factors affecting to the shortage of labour supply in the selected block as reported by the tea growers during survey were:

Mahatma Gandhi National Rural Employment Guaranty Scheme MGNREGS - It is a Central Govt employment scheme initiated by the UPA Govt in 2005. The scheme was implemented in the study area in 2008 where employment is provided to the beneficiaries on 100 days basis at the rate of ₹100/ day. This scheme highly affected the labour supply and tea growers could not met their demand for tea gardens. The wage rate for farm labour hiked by 17-43 percent from January 2011 by the tea growers and this lead to the increase in wage from ₹100/ day to ₹117/day and some time it was increased up to ₹143/day in the study area. The farmers and the Govt official have reported that the wage earners or daily labourers in the Ri-bhoi district have shifted their occupation to the National Rural Employment Guarantee Scheme (NREGS) which provides each labourer 100 days' work with an assured salary a day (Table 1).

No of registered		Job card issue	Employment demanded		Employment offers		Employment provided		
House hold	Persons		House hold	Persons	House hold	Persons	House hold	Persons	Person days
25598	49787	25598	18647	25798	18646	25767	18625	25671	854049

Table 1: MGNREGS implemented in Ri-bhoi district during 2010-2011

Sources: Govt of India, Ministry of Rural Development, District Rural Development, 2011

*Self-Employment*- The desires to start own farming and in search of non-farm work like carpentry within or outside the village bring the labour scarcity in the village.

*Diversification*- The diversification in farming like the cultivation of the profit oriented crops like strawberry which highly remunerative in the block motivated the labours to starts their own farming.

*Migration*- Migration of the farm workers to the urban areas in search of the better facility like education for the children and job for the adults brings about the shortage of the labour supply in the field. This factor affects the farm owner to a large extent.

## CONCLUSION AND RECOMMENDATION

From this study it was observed that the shortage of labour on tea gardens leads to lowering the production and productivity as reported by the respondents during the survey. Further, the migration of skilled labours widens the problem. The average labour wages have been doubled during the past 3-4 years. The strategy to lessen the severity of the crises from the State Govt side is by subsidising the equipment and assets required at the field to enable the farmers to acquaint the same. The study has suggested that a proper work calendar should be followed for MGNREGS work to ensure the labour supply. Further, it should be undertaken during the lean season to manage labour shortage for farm operations. The study has suggested that the

minimum wage under MGNREGS should be increased cautiously keeping in view its impact on agricultural activities. Further, study suggests the inclusion of small machineries used at different stages of activities in tea garden to avoid the labour shortage.

## ACKNOWLEDGEMENTS

Authors are very much thankful to the unanimous referee of the article for giving his/her valuable suggestion to improve the article.

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