



## Income and Employment Status of Rubber Plantation Growers: An Overview of Nagaland State

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### Article History

Volume 6, Issue 12, 2024

Received: June 10, 2024

Accepted: July 5, 2024

doi:

10.48047/AFJBS.6.12.2024.4605-4612

### ABSTRACT

The importance of labourers in agriculture is a well-known fact and predominantly the plantation sector is labour intensive. Technological advancements have not been able to diminish the importance of labourers in plantation sectors. Hence the study on Profile of rubber plantation labourers in Mangkolemba block, Nagaland was undertaken in order to understand the dynamic of labourers and their laments in the above cited area. The present study was made to understand the profiles of the labourers, their working conditions in the study area. Primary data was collected through personal interviews, observation and developed structured schedule. The secondary data and related information were gathered through different online and offline sources for the relevant inferences finally 80 respondents were selected based upon purposively stratified random sampling technique and the results were analysed by using suitable statistical tools. Four types of labour forces were identified, and it was noted that majority (82.40 per cent) of the work force were male, it was also found that wages differed between the trained and self-trained workers and between men and women. Self-trained labourers were found to cause damage to the plantation due to insufficient knowledge. Contract based labourers were also found; profit sharing with the plantation owners in the area. The males earned 33.33 per cent more as compared to females in self-trained category and 16.66 per cent more in case of hired labour. Timely and proper training programmes for the locals should be organised by the concerned authorities in order to sensitize the present farmers / labourers and the future generation. The wage gap between the male and female labourers must be revised and lessen.

**Keywords:** Rubber plantation, wages, and contract labourers.

## INTRODUCTION

Rubber tree (*Hevea brasiliensis*) belongs to the family Euphorbiaceae believed to have its origin at the Amazon basin. It is commercially known for its latex which is extracted, made refined and is used in the rubber industry (Encyclopaedia, 2012). Rubber produced as fibre, has significant value to the textile industry because of its elasticity (Rubber is grown in warm climate with temperature ranging between 21°C to 35°C, rainfall of 200cm to 450cm and requires being grown 450 to 500 msl(above mean sea level) (Singh and Sharma, 2022). The climate in Nagaland fulfils all the above cited conditions and hence, “as of 2021, overall area under rubber plantation in Nagaland stands at 19,132.5 ha (Longkumer *et al.*, 2024). 4,989 ha has been brought under tapping which produces about 15, 700 MT of latex per year and the remaining 14,100 ha of rubber plantation has attained maturity according to Annual Administrative Report 2021-22 of Land Resources Department tabled at the concluded 11th session of 13th Nagaland Legislative Assembly (NLA)” (Anon. 2022).

The importance of labourers in agriculture is a well-known fact and predominantly the plantation sector is labour intensive. Technological advancements have not been able to diminish the importance of labourers in plantation sectors. Hence the study “Profile of rubber plantation labourers in Mangkolemba block, Nagaland” was deemed necessary in order to understand the dynamic of labourers and their laments in the above cited area.

## RESEARCH METHODOLOGY

Mangkolemba block was purposively selected as rubber has been grown extensively in this region in the past few years, also much studies in this block have not been carried out. Out of 14 villages in the block 9 villages were selected -Atuphumi, Changki, Japu, Longnak, Longtho, Merayim, Mangkolemba headquarter, Satsukba and Shihaphumi villages as they all lay in a single stretch of land, close to one another. Total number of rubber farmers in each village was collected from the local rubber board and 80 labourers were selected based upon stratified random sampling procedure.

$$*\text{STRATIFIED SAMPLING} = \frac{\text{TOTAL POPULATION}}{\text{ENTIRE POPULATION}} \times \text{POPULATION OF THE SUB GROUP}$$

The data required was collected from the respondents through personal interviews, observation and developed structured schedule. The secondary data and related information were gathered through concern departments, textbooks, handbooks, etc., to arrive at relevant inferences.

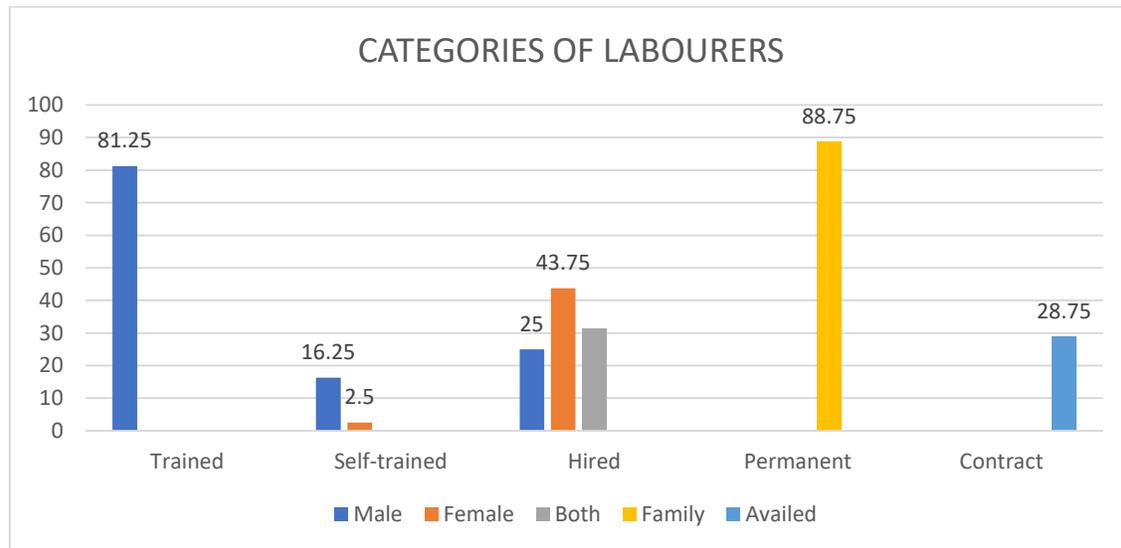
## RESULTS AND DISCUSSIONS

### 1. Profile of rubber plantation labourers:

During the research, four categories of labourers were found: trained labourers, hired labourers, permanent labourers and contract labourers. In the trained labourer’s category, another sub-category of self-trained labourer was also found; those who learned observing the trained labourers over time (Longkumer and Sharma, 2023).

**Table 1. Distribution of different types of labourers in the rubber plantation (n=80)**

S. N.	Categories	Gender	Employed	Per cent (%)
1.	Trained	Male	65	81.25
		Female	0	0.00
	<b>A. Sub Total</b>		<b>65</b>	<b>81.25</b>
	Self- trained	Male	13	16.25
		Female	2	2.50
	<b>B. Sub Total</b>		<b>15</b>	<b>18.75</b>
<b>Total (A + B)</b>		<b>80</b>	<b>100.00</b>	
2.	Hired	Male	20	25.00
		Female	35	43.75
		Both	25	31.25
	<b>Total</b>		<b>80</b>	<b>100.00</b>
3.	Permanent	Family	71	88.75
4.	Contract	Availed	23	28.75



*Figure 1. Distribution of different types of labourers in the rubber plantation*

Table 1 and figure 1 both reveals that 80 respondents (100.00 per cent) employed trained labourers for extraction of rubber latex and processing it, out of whom 81.25 per cent were professionally trained and 18.75 per cent were self-trained (Adikari and Sharma, 2018), only two females were self-trained (2.50 per cent). 80 respondents (100.00 per cent) hired labourers during cleaning / clearing season, 25.00 per cent hired males, 43.75 per cent hired females and 31.25 per cent hired both male and female together. 71 respondents (88.75 per cent) employed permanent workers (family) living at the farm and 23 respondents (28.75 per cent) had contract system with labourers (Sharma and Sharma, 2023).

2. Working profile and conditions:

Table 2. Distribution of labourers based on experience and training exposure (n=80)

S. N.	Particulars	Experience in years	Gender		Numbers of labourer	Per cent (%)
			Male	Female		
1.	Experience in rubber	Up to 5 years	20	2	22	28.00
		5 to 10 years	33	0	33	41.00
		Above 10 years	25	0	25	31.00
	<b>Total</b>		<b>78</b>	<b>2</b>	<b>80</b>	<b>100.00</b>
2.	Training exposure	Never	42	0	42	53.00
		1 time	28	0	28	35.00
		2 to 4 times	10	0	10	13.00
		More than 4 times	0	0	0	0.00
	<b>Total</b>		<b>80</b>	<b>0</b>	<b>80</b>	<b>100.00</b>

Table 2, figure 2.1 and figure 2.2 reveals that 33 labourers (41.00 per cent) had 5 to 10 years of experience, 25 labourers (31.00 per cent) had more than 10 years of experience and 22 labourers (28.00 per cent) had less than 5 years of experience in rubber plantation (females made up only 1.60 per cent), respectively (Chouhan *et al.*, 2019). It also depicts 42 labourers (53.00 per cent) had no training exposures, 28 labourers (35.00 per cent) had 1-time training exposure and 10 labourers (13.00 per cent) had 2 to 4 times of training exposures (Viswanathan, 2021). None of the labourers had training exposure for more than 4 times and none were females (Tongkaemkaev and Chambon, 2018; Wikimedia, 2023).

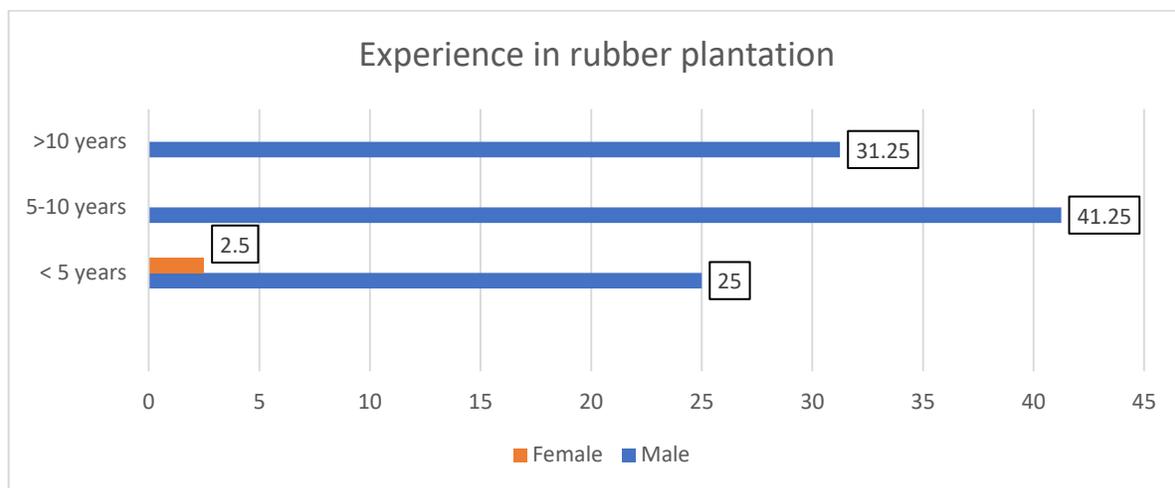
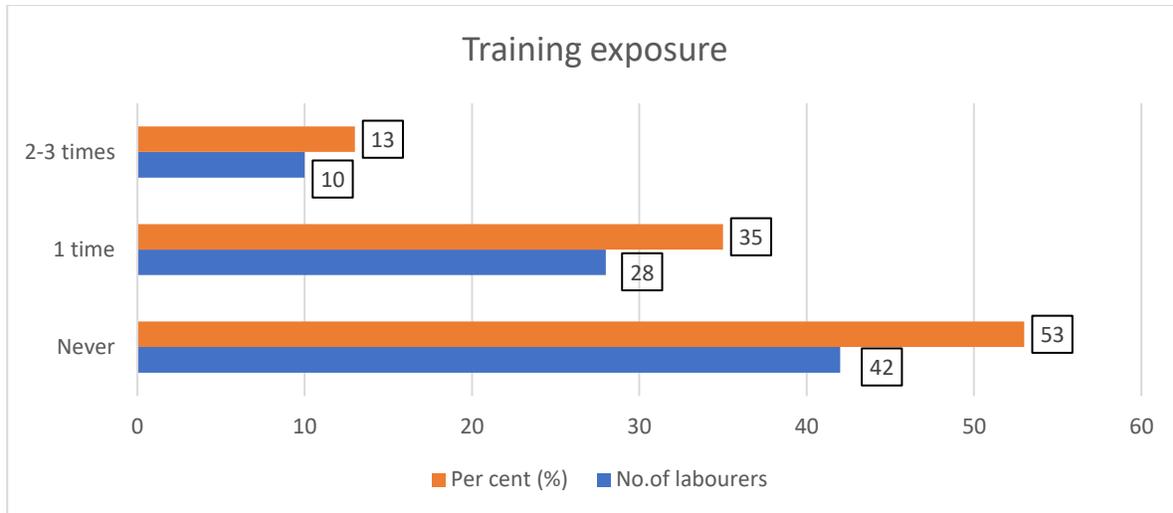


Figure 2.1. Distribution of labourers based on experience in rubber plantation



**Figure 2.2. Distribution of labourers based on training exposure**

*2.2. Wages of labourers based on gender and others:*

Table 3 reveals that how wages were paid to the labourers viz; male and female clearly were paid differently in trained (self-trained) and hired categories (Chanu *et al.*, 2023). Trained male labourers were paid ₹ 15,000 / month whereas self-trained male labourers were paid ₹ 8,000 / month, while female self-trained labourers were paid ₹ 6,000 / month (Anishkumar, 2024). Trained labourers were employed for 7 months (Biggs *et al.*, 2018), during peak season

**Table 3. Distribution of employment and income on rubber plantation**

S. N.	Categories	Gender	Wages (in ₹)	Days of Employed	Income / year (in ₹)	Remarks
1.	Trained	Male	₹ 15000/ month	7 months	₹ 1,05,000	Person with diploma
		Female	Nil	Nil	Nil	Nil
	Self-trained	Male	₹ 8000/month	7months	₹ 56,000	Person without diploma / insufficient knowledge
		Female	₹ 6000/month	7 months	₹ 42,000	Person without diploma / insufficient knowledge
		Difference	₹ 2000/month	7 months	Comment	The males earn 33.33 per cent more in wages in comparison to females.
2.	Hired	Male	₹ 350/day	1 month	₹ 10,500	8 hours / day (lunch not provided)
		Female	₹ 300/day	1 month	₹ 9,000	8 hours / day (lunch not provided)
		Difference	₹ 50/day	1 month	Comment	The males earn 16.66 per cent more in wages in comparison to females
3.	Permanent	Family	₹ 3000 to 3500/ month	12 months	₹ 36,000 to ₹ 42,000	Other miscellaneous cost incurred by the owner (including medical expenses)
4.	Contract	Availed	50.00 per cent of the profit in a season	7 months	Depend	The profit is equally distributed between the contractor and the plantation owner

earning an annual income of ₹ 1,05,000 (trained), ₹ 56,000 (self-trained male) and ₹ 42,000 (self-trained female). Even the hired male labourers were paid ₹ 350 / day (8 hours) while female hired labourers were paid ₹ 300 / day. They were employed as and when needed; an estimated income of ₹ 10,500 (males) and ₹ 9,000 (females) annually (Singh and Sharma, 2021). Permanent labourers were paid ₹ 3,000 to 3,500 /month along with miscellaneous expenses including medical bills; employed whole year round (Yadav *et al.*, 2023). Income estimated between ₹ 36,000 to ₹ 42,000 annually. The contract system was also observed where the labourers and the plantation owner had a working partnership with an understanding to share the profit in 50: 50 based after harvesting, contract period 7 months usually during peak season.

## CONCLUSIONS

So, we conclude that the plantation is a labour-intensive sector and human power is much needed every day especially during peak harvesting seasons. Necessity of labourers cannot be ignored, and priorities should be made to care for the welfare of the farm labourers. Also, it can be concluded that male population was hugely employed in rubber plantation sectors unlike in tea plantations where, most of the labourers are female. The males earned 33.30 per cent more as compared to females in self-trained category and 16.66 per cent more in case of hired labour. It was also found that self-trained labourers posed a great threat to the rubber plantations due to improper rubber extraction technique caused by the lack of technical knowledge. Hired labourers mostly constituted of female as the work was mostly pertaining to clearing and cleaning. 71 respondents had permanent labourers settled at their plantation, which takes care of the farm. Monthly salary was paid along with miscellaneous expenses including medical expenses. The contract farming system was found to be successful but more beneficial for the labourers as the profit was shared equally among the plantation owner and the labourer, but risk and liabilities was more for the plantation owner. Earning of the contract labourers can be concluded as the most since they get 50.00 per cent of the total profit after selling the raw materials. Trained labourers earn the second highest and the leased is earned by the hired labourers. The male population has been found to earn more than the female in this study.

**Policy recommendation:** The main policy recommendation of the findings is:

- Timely and proper training programmes for the local respondents; should be organised by the concerned authorities in order to sensitize the present farmers / entrepreneurs (rubber plantation growers) / labourers for the future generation.
- The wage gaps between the male and female labourers must be revised and lessen.

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