

Health conditions of women rubber tappers in Tripura: A case study

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ABSTRACT

This paper attempts to highlight the socio economic conditions and occupational health risks of women rubber tappers in study area. The results indicate that their nature work poses severe health threat to them, since they are handling latex and collecting time is in night or early morning. Many tappers handling latex without any safety measures and materials. Illness among the tappers are more who are not using safety measures. Due to their practice of unhygienic handling of latex they are vulnerable to many health risks. Thus the paper suggested that their should be proper awareness and guideline for using the safety measures and materials.

Key words: Health risk, Illness, Latex, Rubber plantation and Rubber tappers

Introduction

Rubber is an important global commercial plantation which was introduced in India by the British planters. The experimental efforts to grow rubber on a commercial scale were initiated in 1873. Rubber attracted small-scale cultivators by virtue of its capacity to provide steady returns for long period. Moreover, rubber can be cultivated even on inferior lands. Kerala holds a dominant position both in the area of cultivation as well as in the production of natural rubber in India. North-eastern tiny State, Tripura holds second passion in rubber production in India. The earliest rubber plantations in India were large-scale agricultural enterprises operating on commercial lines, engaging regular hired labour. Because of the high remuneration from rubber in the early years of the century, small-scale cultivation also started developing. Rubber attracted small-scale cultivators by virtue of its capacity to provide

steady returns for long period (Shanmugavadivu and Kavitha, 2015).

Rubber tapping is the process by which latex is collected from the rubber tree. For tapping purpose trees must be approximately six years old and tapping is not damaging the trees. Tapping of rubber trees is not only a skilled job but also highly labour intensive. Each night or early morning workers remove a thin layer of bark. Those workers who are involved in such work is known as rubber tapper. The work is done before the day's temperature rises, because for less temperature more latex will drip longer before coagulating and sealing the cut. Self-tapping is not popular in Tripura. So owner of rubber garden hires rubber tappers for tapping purpose. Even Small growers of rubber area below half a hectare hire labourers for tapping. Though women tappers seemed to be efficient in tapping, the share of women in the total number of tappers is very low (Ushadevi and Jayachandran, 2001).

Health Status of Women Rubber Tappers

The working conditions of women rubber tappers are touching. They have to collect latex without masks, gloves and boots. Due to their practice of unhygienic way of latex collection they are vulnerable to many health risks. Both direct and indirect health risks have been posed to women tappers because for lack safety protectors.

The health risk posed to rubber tappers has been very serious since they have to handle latex which are not good for human health. Since they have been involved in the task of collecting, transporting, and storing of latex, they are vulnerable to huge range of infections and sicknesses (Sukanya *et al.*, 2015). The health ailments reported by them include skin disease, eye problems, respiratory infections etc. (Tiwari, 2008). Majority of the women rubber tappers are working as a daily workers and have been unaware of their health risks (Sathya and Gayathri, 2020).

At this outset the present study attempted to study the socio-economic and health conditions of women rubber tappers in Tripura. The objective of this paper are: (a) To study socio economic conditions of women rubber tappers in study area; and (b) To analyse the occupational health risks of women rubber tappers in study area.

Materials and Methods

The present study is an empirical study based on both primary and secondary data. Primary data has been collected with the help of a well-structured questionnaire from 400 women rubber tappers households randomly selected from the eight districts (South Tripura, North Tripura, West Tripura, Dhalai, Unakoti, Gomati, Khowai, and Shipahijala) of the state. The secondary data has been collected from the various annual reports of Rubber board, internet pages, various newspaper clips, journals, various published or unpublished reports and working papers available at different state and national level institutions.

From each districts 50 women rubber tappers are selected and from each district five villages are selected randomly. 10 women rubber tappers are selected randomly from each village. So each district has (10 x 5) 50 women rubber tappers. Therefore, the total sample women rubber tapper to be selected from each district are (10 x 5) 50 and the total

sample sizes are $(50 \times 8) = 400$.

Health Development Index is used for measurement of health status of the women. Health index is a composite weighted index of three different indices, each independently showing: Status index, Infrastructure index, and limited index.

Results and Discussion

On studying the health conditions of the women rubber tappers, age is the prime factor in determining health status. As tappers work of tapping started in the early morning and rubber gardens are generally far away from the house, so collecting latex is a tough job for ages women. But sometimes aged women also involved due to lack of alternative work or as substitute of other family worker. The age of the women rubber tappers are shown in Table 1.

Table 1. Age of the Women Rubber Tappers

Age	Number of Rubber Tappers	Rank
Below 35 years	280 (70)	I
Between 36 to 45 years	80 (20)	II
Between 46 to 55 years	30 (7.5)	III
Between 56 to 65 years	10 (2.5)	IV
Above 66 years	0 (0)	V
Total	400 (100)	

Source: Field survey (Bracket indicate percent)

The above table shows that majority of the rubber tappers are found to be in the below 35 years' group. In percentage, seventy percent tappers are fallen in this group. Eighty tappers have age between 36 to 45 years. Thirty tappers have age between 46 to 55 years and only ten tappers have age between 56 to 65 years. There are no tappers above sixty-six years of age. Level of education of women rubber tappers are shown in Table 2.

Table 2. Level of Education

Education level	Number of Rubber Tappers	Rank
Illiterate	230 (57.5)	I
Primary education	90 (22.5)	II
Secondary education	80 (20)	III
Higher education	0 (0)	IV
Total	400 (100)	

Source: Field survey (Bracket indicate percent)

The above table shows that most of the rubber tappers are illiterate. This is because for tapping work there are no need of the general education. Basic knowledge of tapping they earn from various training programmes or by only observing the work of the another tapper. Only very few have completed their primary and secondary level of education. The table reveals that 57.5 percent, 22.5 percent and 20 percent tappers are illiterate, primary and secondary level educated. None of tappers is graduated. Community particulars of women Rubber tappers are shown in Table 3.

Table 3. Community Particulars of Women Rubber Tappers

Community	No. of Rubber Tappers	Rank
Schedule caste	25 (6.25)	III
Schedule tribe	270 (67.5)	I
Other	105 (26.25)	II
Total	400 (100)	

Source: Field survey (Bracket indicate percent)

The above table shown that most of the women rubber tappers are from schedule tribe category. Women tappers belong in schedule caste, Schedule tribe, and others are 6.25 percent, 67.5 percent, and 26.25 percent respectively. Schedule tribe women are more involved because rubber plantation is more popular in hilly areas where climate and soil is more suitable for rubber plantation. Cross tabulation between employment and monthly income is shown in Table 4.

Table 4. Cross Tabulation between Employment and Monthly Income

Mode of Employment	Details of Monthly Income				Total
	<5000	5001 – 10000	10001 – 20000	>20001	
Private owner	50 (12.5)	30 (7.5)	20 (5)	0 (0)	100 (25)
Govt. organization	30 (7.5)	270 (67.5)	0 (0)	0 (0)	300 (75)
Total	80 (20)	300 (75)	20 (5)	0 (0)	400 (100)

Source: Field survey (bracket indicate percent)

Table 5. Cross Tabulation between Usage of Hygienic Measures and Number of Women Rubber Tappers affected by Diseases

Usage of Hygienic Measures	Details of Women Rubber Tappers affected by diseases		Total
	Yes	No	
Yes	20 (5)	34 (8.5)	54 (13.5)
No	226 (56.5)	120 (30)	346 (86.5)
Total	246 (61.5)	154 (38.5)	400 (100)

Source: Field survey (Bracket indicate percent)

The above table depicted that more number of women tappers are working in government owned plantation (i.e. plantation under TFDPC, rubber board). As TFDPC have large plantation in tribal dominated areas, so more tribal women are working as rubber tappers. Tappers gets salary per day basis or weekly basis and per day wage of rubber tappers in private own plantation is higher than the plantation owned by Government Organization. But the main benefits for rubber tappers in govt. plantation is the job security. So women rubber tappers prefer the govt. plantation gardens. Cross tabulation between usage of hygienic measures and number of women rubber tappers affected by diseases is shown in Table 5.

The above table depicted that most of the women rubber tappers do not using the hygienic measures during collection of latex. Surprisingly only very few are found using hygienic materials like gloves, caps, and boots for handling rubber latex. Majority of the rubber tappers are affected by diseases due to their work. The diseases largely affecting them include skin diseases, diarrhoea, food poisoning abdominal discomforts, eye irritations, respiratory problems, skeletal disorders like neck, upper back and lower back pain. Such illness occurred for not washing hands properly after collecting rubber latex. This attitude of the tappers shows their ignorance and unawareness about the ill effects of the non-usage of hygienic materials. Treatment for the Women Rubber Tappers is shown in Table 6.

The above table depicted that most rubber tap-

Table 6. Treatment for the Women Rubber Tappers

Medical Treatment	No. of Rubber Tappers
Government	238 (59.5)
Private	44 (11)
Both	118 (29.5)
Total	400 (100)

Source: Field survey (Bracket indicate percent)

pers are using government clinic for the treatment purpose. Some tappers also use private clinic, but number is less because of the cost. Many tappers are using the both type of the clinic. Human health index of women rubber tappers is shown in Table 7.

Table 7. Human Health Index of Women Rubber Tappers

Districts	Health Index	Human Health Index (average)
South Tripura	0.74	5.48/8= 0.65
North Tripura	0.60	
West Tripura	0.80	
Dhalai	0.63	
Unakoti	0.57	
Gomati	0.65	
Khowai	0.77	
Shipahijala	0.72	

Source: Field survey (author calculation)

The above table depicted that human health index is different in districts. It also shows that health condition of women rubber tappers is improving and higher than the moderate level. As human health index have scale of 0 to 1 and 0.65 value is above the middle value of scale.

Conclusion

By the virtue of their occupation they are exposed to

many health hazards. Hygienic measures during collection of latex is not popular among the rubber tappers. Very few are found using hygienic materials like gloves, caps, and boots for handling rubber latex. Majority of the rubber tappers are affected by diseases due to their work, like as skin diseases, diarrhoea, food poisoning abdominal discomforts, eye irritations, respiratory problems, skeletal disorders etc. Such illness occurred for not washing hands properly after collecting rubber latex.

The medical and legislative measures have to be used wisely to prevent their health problems. An effective occupational health service is the need of the hour to be developed. The significance of the usage of hygienic materials has to be accomplished to rubber tappers.

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