## Risks Faced by the Women Tea Workers to Maintain Livelihood

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#### **Abstract**

The main objective of the study was to determine the risks faced by the women tea workers to maintain livelihood. The study was conducted at tea garden of National Tea Industries, at east Shahi Eidgah of Sylhet Sadar in Bangladesh. Data were collected from 120 sampled women throughout June, 2012 using interview schedule as principle tool. More than 85% of the women workers faced medium to high risk. The mean risk was highest for food and housing aspect and lowest for financial aspect. Incidence of back pain due to carry bag of tea leaves for long time was the top risk followed by incidence of breaking down/heavy effect on houses due to natural disaster (hail storm, cyclone etc.) and risk of food shortage in family diet due to insufficient ration. Number of dependent members had significant positive relation and formal education and income had significant negative relation with the risks faced by women tea workers to maintain livelihood.

Key words: Risk, women, tea workers, livelihood

#### Introduction

Bangladesh has around 164 tea gardens covering an area of 53259 hectares (Saha, 2010). The country produces about 55 million kg of tea each year occupying the 9th position in respect of production in the world. About 0.15 million people are directly employed in tea industry along with 3,50,000 dependents which constitutes about 3.3 percent of the country's total employment. Over seventy five percent workers of this industry are women and tea sector contributes about 0.81% of GDP in Bangladesh (Majumder and Roy, 2012; Muaz *et al.*, 2010).

As tea workers women mainly work in the garden and pluck leaves. On the other hand, male workers mostly work in the factory and in garden they cut the drains, provide irrigation, fertilization and pruning. The tea garden workers are considered to be among the poorest and most deprived section of organized labor (Sankrityayana, 2006). They are one of the most exploited workers

with working hours ranging from morning till late night; the wagers received being only \$0.47 a day (Majumder and Roy, 2012). The literacy rate among them is very low as they are employed into garden works in their childhood which is more profitable to them (Kajol, 2006). The tea worker communities are one of the most vulnerable people of Bangladesh (Majumder and Roy, 2012). The reliance of families on the tea plantations for food, water, education, health and sanitation makes them extremely vulnerable to closures (Harry, 2003). They remain socially excluded, lowpaid, illiterate, deprived and disconnected which fall them on different types of risks. Although tea sector significantly contributes to the national economy of Bangladesh, the socio-economic and livelihood aspects of the women tea garden workers did not get much importance to policy makers. The risks they faced to maintain livelihood while working in tea garden still to be

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ascertained. Considering this circumstances, the study was conducted with following objectives: (i) to determine the risks faced by the women tea workers to maintain livelihood, (ii) to ascertain the most risk prone aspects of livelihood, and (iii) to identify the socio-economic characteristics of women tea workers that influences their extent of risk.

## Methodology

Study area, population and sampling: The study was carried out at Doldoli Tea Garden, one of the three gardens of National Tea Industries, at east Shahi Eidgah of Sylhet Sadar. Doldoli tea garden is situated in the northern side, at a distance of about 3 kilometers from Sylhet Sadar. There are 186 women workers are involved in this garden. Out of these 186 women workers, 120 of them were randomly selected as sample of the study.

Variables of the study and their measurement: Various socio-economic characteristics of the women workers like age. formal education, experience, household size, number of dependent access to income. credit. members. media exposure communication were considered as the independent variables of the study. The dependent variable was the risks faced by the tea garden women workers to maintain livelihood. Some selected aspects of livelihood such as food for dietary consumption and safe water for drinking, financial capability to maintain family, health care, housing facilities, gender issue and social security in relation to theft, robbery, drug addiction were taken as the basis of measuring risks of tea garden women workers. Thus risks categorized as food and housing, health, financial, gender and social aspects. Risks were measured using a four point rating scale on those five aspects. The method of assigning scores to the four alternatives in each statement was as follows:

Extent of risk	Scores assigned
High	3
Medium	2
Low	1
Not at all	0

Thus total score of risk for 18 statements may range from 0 to 54. On the other hand, risk index for each statement was calculated by following formula:

Risk Index (RI) =  $3\times H + 2\times M + 1\times L + 0\times NA$ 

Here, H, M, L and NA means total number of women workers mentioning high, medium, low and not at all as a risk of a particular statement respectively.

Data Collection and analysis: Based on the objectives of the study, a structured interview schedule was prepared. The schedule contains both open and closed forms of questions. Data were collected throughout June, 2012 from 120 women workers by personal interview. At the end of data collection, the collected data were coded, compiled, tabulated and analyzed. The qualitative data were transferred into quantitative data by appropriate scoring technique. Various descriptive statistical measures such as range, percentage, mean, standard deviation, rank order, correlation, F test were used for categorization and describing the variables.

#### **Results and Discussion**

Risks faced by the women tea workers: The score of risks faced by the tea garden women workers varied from 16 to 42 against the possible range of 0 to 54. The mean and standard deviation were 29.55

and 5.33, respectively. Women were categorized into three levels of risks based on their score of risk faced and presented in the Figure 1.

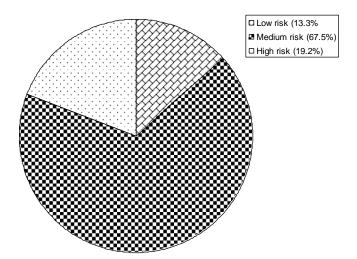


Figure 1: Percentage of women facing different level of risk in tea garden

It is evident from the Figure-1 that more than eighty five percent of the women workers were in medium to high risk to maintain their livelihood. On the contrary only 13.3 percent of them faced low risk. From this result it can be said that working in tea garden as a means of livelihood do not ensure their sustainability. Direct observation of Ruma and Dipak (2014) reveals that the majority of worker families of the tea garden are at risk of multiple threats.

Status of different aspects of risk: Risks faced by the women workers were categorized as food and housing, health, financial, gender and social aspects. The mean score of risk were 1.87, 1.76, 1.32, 1.67 and 1.56 for food and housing, health, financial. gender and social aspects

respectively and presented in Figure-2. Since score assigned to each statement ranged from 0 to 3, mean scores for most of the aspects exceed its half value (i.e. >1.50). According to the mean of risk, women workers were categorized into homogenous subsets as presented in the Table 1. It is found that workers faced the highest risk in food and housing aspect. Next highest risk related to health fallen with both food and housing subgroup and gender subgroup. The lowest risk was found in case of financial aspects. These findings reflect the conclusion of IFPAAW (1986)management of Bangladesh tea garden provides minimum facilities of health and housing to the tea workers.

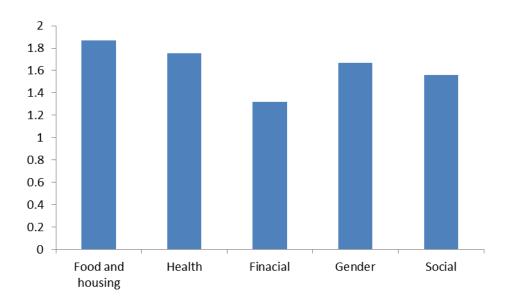


Figure 2: Mean of risk in different aspects faced by women tea garden workers

# Ranking of the risks faced by the women tea workers to maintain livelihood

Risk score for each statement was calculated by using risk index (RI) and based on RI, rank order for these statements were made as presented in Table 2.

It is revealed from the Table-2 that, incidence of back pain due to carry bag of leaves for long time was the top risk. 55% of the women were agreed it as high risk. Women tea workers are on their feet for hours on end, carrying tea-collecting bag/basket on their back and also have to bring those bags to weight walking 1-2 km

away. This regular practice suffer them long term back pain. Majumder and Roy (2012) found that back pain is a common health hazard among the tea plantation workers in Sreemongal upazilla of Bangladesh.

Table 1 Homogenous subsets for risk of different aspects

Risk	Subset for alpha $= 0.05$				
	1	2	3	4	
Financial	1.3208				
Social		1.5583			
Gender		1.6667	1.6667		
Health			1.7550	1.7550	
Food and				1.8708	
housing					

Table 2 Ranking of risks faced by the women tea garden workers

Statement		Extent	of risk		RI	Rank
	H	M	L	NA	<del></del>	order
Food and housing						
1.Risk of not getting pure drinking water	10	18	24	48	109	16
2.Risk of food shortage in family diet due	48	29	20	3	264	3
to insufficient ration						
3. Incidence of breaking down/heavy	43	43	13	1	276	2
effect on houses due to natural disaster						
(hail storm, cyclone etc.)						
4. Incidence of delay and careless action	28	50	20	2	249	4
taken by the authority to repair broken						
houses						
Health						
5. Incidence of different infectious,	17	36	39	8	193	10
contagious & other chronic diseases						
6. Incidence of improper support from	27	51	21	1	248	5
authority to cure chronic disease						
7. Incidence of back pain due to carry bag	55	33	11	1	290	1
of leaves for long time						
8. Incidence of insect bite while tea	6	16	73	5	148	15
leaves plucking						
9. Risk of snake bite in tea garden	7	31	62	0	174	11
Financial						
10.Risk of not getting wages timely	5	12	18	65	68	18
11.Possibilities of being cheated while	41	31	21	7	246	6
weighing leaves						
12.Risk of losing job any time	10	14	30	46	106	17
13. No scope of savings by working in tea	16	57	17	10	214	9
garden						
Gender related						
14. Women may be compelled to engage	28	52	16	4	242	7
tea plucking after marriage to maintain						
family expenditure						
15. Male workers may not be allowed	11	32	36	21	158	14
housing if their wives don't work in tea						
garden						
Social						
16. Extent of theft, robbery	20	18	46	16	171	12
17. Availability of narcotics and drug	30	32	37	1	229	8
among tea workers community						
18.Incidence of restricted access to other	3	38	52	7	161	13
community of a society						

<sup>\*</sup> H=High, M=Medium, L=Low, NA=Not at all, RI=Risk index

The next top risk was incidence of breaking down/heavy effect on houses due to natural

disaster (hail storm, cyclone etc.). 43% women were agreed it as high risk. Tea

garden authority provides very poor and fragile housing to their workers. They are supposed to damage with little hail storm and severely affected due to cyclone, tornado every year. In tea gardens of Sreemongal upazilla of Bangladesh, Majumder and Roy (2012) revealed that most of the houses have mud walls and straw roof and during the rainy season, living conditions in such houses becomes deplorable.

Risk of food shortage in family diet due to insufficient ration was the third most risk for the women workers of tea garden. Usually 3.5kg @1.30 tk/kg rice or wheat flour are given weekly to every worker. But other necessary food items are not included here. So, often they suffer to manage their daily food with limited earning. Barkat, *et al.* (2010) found that daily food intake of an average household member of tea garden worker was 761.5 grams, which was lower than the minimum 934 grams required for balanced nutrition in Bangladesh.

# Relationship between socio-economic characteristics of the women tea workers and their risks to maintain livelihood

To determine the relationship of the women socio-economic workers' characteristics with their risks of livelihood, Pearson's product moment correlation co-efficient (r) was computed. The result of correlation is shown in Table-3. It is revealed that formal education and income of the workers had significant negative and number dependent members had significant positive relationship with the risks they faced while working as tea garden worker. Education makes them aware about the probable risk and enables them to avoid it. According to Ruma and Dipak (2014) poor educational status of the tea garden workers has major contribution in increasing risk factors of their community in various dimensions. More income enables women tea workers to meet up necessary needs and allow them less risk in livelihood. Majumder and Roy (2012) found that miserable income severely affects the daily lives of the tea workers.

On the other hand, the more the dependent members in a family, the more they have to spend to meet up basic needs for those dependent members. Thus fall in more risk to maintain livelihood. Hassan (2014) revealed that most of the female tea workers want to keep family in small size to have better living. So, there are certain characteristics of the women workers that can shape their extent of risk. Proper utilization of those characteristics can ensure sustainable livelihood by reducing their incidence of risk to a great extent.

Table 3 Results of correlation between socio-economic characteristics of the women tea workers and their risks to maintain livelihood

Socio-economic characteristics	Risks to maintain livelihood (r value)
Age	0.081
Formal education	-0.193*
Experience in working tea garden	0.052
Household size	0.069
Number of dependent members	0.174*
Income	-0.216*
Access to credit	-0.084
Communication media exposure	0.026

<sup>\*</sup> Significant at 0.05 level of probability with 118 d.f.

#### Conclusion

Livelihood of women tea workers are engulfed by different types of risk. They are in great risk of basic needs like food, housing and health. There exists some gender linked risk also. The ration given is trivial and not balanced as it contains only rice or wheat flour. The housing provided by the authority are fragile (made of straw, soil etc.) and prone to damage in a simple natural calamity.

Ration given to the women tea workers should be reconsidered to include some other essential food items. Their housing problems should be addressed. Enhancing education facilities, alternate income source and family planning awareness could reduce their livelihood risk significantly. Government, tea garden authority and NGOs should come forward and work in collaboration to reduce their risk and to ensure sustainable livelihood.

#### References

- Barkat, A., G. Mahiyuddin, N. Shaheen, A. Poddar, A. Osman, M. Rahman and R. Ara, 2010. Assessment of the Situation of Children and Women in the Tea Gardens of Bangladesh. Human Development Research Center (HDRC), Dhaka-1207.
- Harry, W. 2003. Tea Plantations of West Bengal in Crisis Centre for Education and Communication.
- Hassan, A. B. M. E. 2014. Deplorable Living Conditions of Female Workers: A Study in a Tea Garden of Bangladesh. American Journal of Humanities and Social Sciences, 2(2): 121-132.
- IFPAAW. 1986. Working and Living Conditions of the Plantation Workers in Asia. Proceedings of Inter-country Seminar of International Federation of Plantation Agricultural and Allied Workers, 5-13 November, Kuala Lumpur, Malaysia.
- I. 2006. Surma Upottokar Cha Kajol, Sramik Andolon: Oteet O Bortoman. 1st ed. Dhaka: Probash Prokashoney.
- Majumder, S. C. and S.C. Roy. 2012. Socio-economic Conditions of Tea Plantation Workers in Bangladesh: A

- Case Study on Sreemongal. Indian Journal of Applied Research, 1(10):
- Muaz, S. S. A., M.R. Hasan, S.A. Shamim, A. Dev and S. Kamar. Nutritional Status of 1-5 Years Children of the Tea Workers in Sylhet Division. Bangladesh J Child Health, 34 (1): 11-16.
- Ruma, D. N. and N. Dipak. 2014. Educational Vulnerability and Risk Factors of Tea Garden Workers with Special Reference to Dewan Tea Garden Village, Cachar, Assam, India. International Research Journal of Social Sciences. 3(9): 14-21.
- Saha, J. K. 2010. Economics of Tea, Global Tea Statistics and Tea Marketing System in Bangladesh.
- Sankrityayana, J. 2006. Productivity, Decent Work and the Tea Industry in North Eastern India-Plantation Labour in the West Bengal Tea Industry. International Labour Organisation, Background Paper for 'Productivity & Decent Work in the Industry: A Consultative Meeting'. New Delhi: International Labour Organisation.