

## **Livelihood Status of Tribal Women through Entrepreneurship Development: Evidence from Sylhet Region of Bangladesh**

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### ***Abstract***

*Considering the broad thematic areas of entrepreneurship development, this research has drawn upon livelihood capitals of tribal women in Sylhet region of Bangladesh. The study was carried on exploring and assessing different livelihood capitals i.e. human, natural, physical, financial and social of tribal women involved in entrepreneurial activities. It has also been analyzed the changing livelihood capitals of tribal women through entrepreneurship development. Primary data has been collected from 180 tribal women entrepreneurs in two districts namely Sylhet and Moulvibazar. For examining livelihood capitals, the research conducted four tribal women groupssuch as Garo, Khasia, Monipuri, and Patro who have started different enterprise activities for improving their livelihood capitals respectively. Multi-stage random sampling technique was used within a methodological context of participatory action research at individual, household and community level. Based on sustainable livelihood framework, asset pentagon for before and after situation of entrepreneurship development and Pearson's correlation were systematically used to determine the relationships between livelihood capitals. The research finding revealed that remarkable differences of livelihood capitals were found between women entrepreneurs after entrepreneurship development. Financial assets were generally higher in Patro (about 89.4%) while lower in Garo (about 68.6%), respectively. The overall natural capital was poor (51.2%) due to poor contribution of land holding (49.6%), respectively. Thus, it was found that entrepreneurship development has been changed*

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*their livelihood capitals and had a positive and significant relationship between livelihood capitals of entrepreneurs. It was therefore, recommended that formal and informal education, government intervention on hilly land settlement law, training, marketing and importing facilities could be required to facilitate human, natural and social capitals of tribal women entrepreneurs.*

**Key word:** Entrepreneurship development, livelihood capitals, asset pentagon, tribal women

## **Introduction**

Entrepreneurship is a process in which individuals develop an economic activity producing wealth by assuming project risk (Schumpeter, 1935). It aims to develop the upstream profit with a willingness to mobilize resources and achieve or promote the achievement of wider interest (Schumpeter, 1935), where women involvement were very few in every economic activities than men. Their participation is also one of the prime contributors in economic growth (Singh and Belwal, 2008), which ensure effective labour utilization, income generation and improvement the quality of life (Sarma, 2014). Thus the issue of women involvement in entrepreneurial activities is treated as women entrepreneurship which is becoming popular not only around the world but also in Bangladesh. They have played an important role in entrepreneurial landscape (Pages, 2005) also. According to the Labour Force Survey (LFS) the labour force of Bangladesh was estimated at 62.1 million, more than 19 million being women (BBS 2017). Most of them are represented from the mainstream societies but the contribution of tribal women was very poor in entrepreneurial activities. Not only entrepreneurial activities but also their socio-demographic and health status are lower than the mainstream people in Bangladesh (Mullah *et al.* 2007), while about 1.41 million tribal people are living in Bangladesh (BBS 2010). Thus, development of tribal economy is essential pre-conditions to the development of a nation or as a whole. The emergence of women entrepreneurship in tribal societies is being quite visible today and contributing to their economy successfully. But the situation of women involvement in entrepreneurial activities is not an expected level in tribal or indigenous societies. The isolation of their living place is the main hindrance of developing tribal women entrepreneurship compare to the mainstream society. This gap needs to be lessened through increasing the involvement of tribal women in entrepreneurial activities as entrepreneurship development.

In tribal society, women are more important than any other society. They do hard work with their husband in all agricultural activities, and contribute to their family economy and management also. They express their opinions freely, and consider as the provider of household sustenance (Day, 2008), though they are being economically poor and

socially backward live at a low level of life and often face the problems of food insecurity, malnutrition, lack of access to health care services and education, and the victim of domestic violence and rape (Mullah *et al.*, 2007). Recent evidence clearly shows, however, that tribal women involve in a range of economic activities with the help of government and non-government organizations and recognize as an entrepreneur. The realization of entrepreneurship has led them to a greater improvement on livelihood options with a more cost-effective way. Consequently, they have started different enterprises activities such as pig rearing, livestock and poultry farming, shop keeping, fruits and vegetables cultivation, clothes weaving, bamboo handicrafts, beauty pourlaretc for increasing their standard of living. Systematic and suitable enterprises are needed to contribute more for improving their livelihood status which will make anointer-link with livelihood capitals as well.

Livelihood basically indicates peoples' means of making a living as a process of accessing various livelihood capitals such as financial, human, social, physical, natural capitals through various livelihood strategies (e.g., farming activities, creating micro and small enterprises, etc.) for better livelihood outcomes (e.g., income generation). 'Livelihood capitals' refer to the resource base of a community and of different categories of households (FAO, 2005). They are grouped in human, natural, financial, physical and social capital (DFID1999; FAO 2005). People who have more capital tend to make diversified livelihood strategies (Sun *et al.*, 2016). Most of the studies have been done on establishment of index system for measuring farmer's livelihood capital taking part in the Water Diversion Project (Yang and Zhao, 2009); evaluation of vulnerability of farmers' livelihood capitals in Hebei, shading, Henan, Hubei and Hunan province (Guo and Zhang, 2013) in aboard. However, few studies have been conducted in Chittagong hill areas earlier to find out the socioeconomic conditions of tribal people, *Jhum* cultivation and problems of tribal communities in different parts of Bangladesh. But still no studies are conducted on the impact of entrepreneurship development and livelihood status for the major tribes in Bangladesh, especially in Sylhet region. But the reality of enterprise expansion for tribal women in Sylhet region, particularly was not satisfactory level compared to the expectations. Still they are facing the problem of equalization and distribution of livelihood capitals.

Without empirical evidences, answer to the question of changing livelihood capitals through entrepreneurship development was not so simple and straight forward. As a result, whether their participation in entrepreneurial activities positively affect livelihood capitals or not. With this premises, it is necessary to explore the changing different livelihood

capitals i.e. human, physical, financial, natural and social capitals and assessed the relationship between livelihood capitals through entrepreneurship development of tribal women entrepreneurs in Sylhet region of Bangladesh. Tribal women in Sylhet region have developed different enterprises in order to change their livelihood capitals which also uplift their socioeconomic condition. It is therefore, needed to make a clear idea at first whether entrepreneurship development really change their livelihood capitals or not? Based on the research question, the overall aim was to analyze the changing livelihood capitals of tribal women before and after situation of entrepreneurship development. The study was also analyzed the relationship between different livelihood capitals through entrepreneurial activities. This in-depth analysis was important because without such a changing pattern of livelihood capitals it would be almost impossible to assess how drive tribal women to extend their entrepreneurial activities and where they will be engaged in.

### **Materials and Method**

The fieldwork was carried out from Sylhet and Moulvibazar district of Bangladesh. A multistage sampling technique was used to ensure the targeted tribal women. Based on the participation of tribal women in entrepreneurial activities, two upazilas were purposively selected from each district, as Gowainghat and Sylhet sadar were selected from Sylhet and Sreemangal and Kulaura were from Moulvibazar district. Two union were also selected from each upazila, namely Khadim Nagar and Tultigor union of Sylhet sadar upazila and, Fatehpur and Jaflong of Gowainghat upazila. From Sreemangal upazila, Rajghat and Kalighat, and Kulaura and Kadirpur union of Kulaura upazila were also selected for the study. Out of 109, a total of 31 villages/*paras/punji* were selected randomly, where 18 *paras* or villages from Sylhet and 13 *punji* were considered from Moulvibazar district. In terms of entrepreneur's selection, 77 tribal women were randomly selected from Sylhet and 103 entrepreneurs from Moulvibazar. For the selection of tribal communities, four (4) communities (i.e. *Monipuri*, *Khasia*, *Garo* and *Patro*) were selected out of 9 considering their entrepreneurial activities, where two communities were namely *Monipuri* and *Patro* selected from Sylhet, and another two communities as *Khasia* and *Garo* from Moulvibazar district. However, about 30% of tribal women entrepreneur were selected from each tribe as 54 *Monipuri*, 47 *Khasia*, 23 *Patro*, and 56 *Garo*. Thus, the sample size stood at 180.

Both structured and semi-structured interview schedule were used to collect primary data. Face to face interview and Focus Group Discussion (FGD) were conducted to understand their changing livelihood capitals through entrepreneurship development. Key informant interviews were

conducted to seek a general overview of the tribal areas, economic activities and their culture. The key informants were union council members, the officers of local NGOs named Caritus, and Headmen (Chief of the *Punji*) and other relevant persons. Further, few observation-notes were taken on the life style and the contribution of tribal women entrepreneurs to their family, and other situations for example settlements, sanitation, livestock and pig shed, housing etc.

### Analytical Framework

Based on the sustainable livelihood framework (SLF) (Ellis, 2000), the paper focuses on the changes of livelihood capitals through entrepreneurship development by taking into account of assets pentagon i.e. the five capital assets envisioned by SLF. The pentagon has the basic element in SLF that governed livelihood options available to the tribal households and based on human, social, financial, physical and natural capitals. A total of 25 indicators of livelihood capitals were considered while 6 indicators were under human capitals, 7 were physical, 3 natural, 3 financial and 6 were of social capitals. The sewere also conducted for the situation of before and after entrepreneurship development, calculated by summing the score obtained from the selected indicators using three rating scales as 1 = low, 2 = medium and 3 =high, respectively.

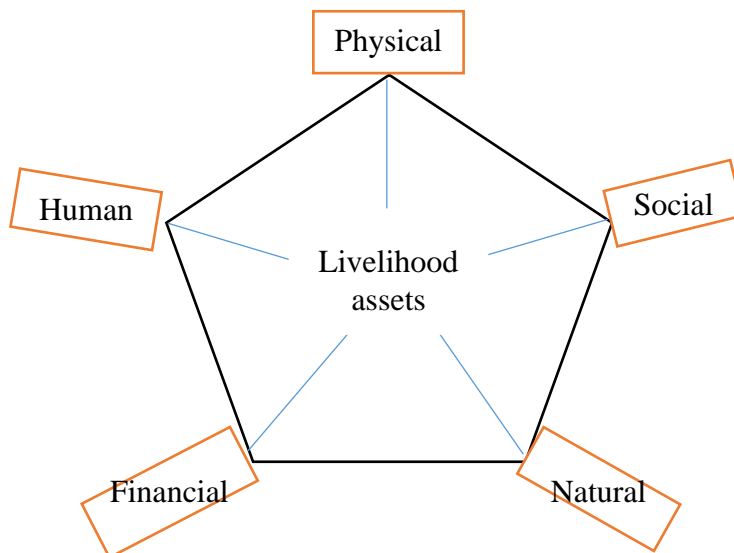


Figure 1: Plotting asset status on a pentagon (Source: Ellis, 2000)

On the basis of a specific and in-depth investigation, livelihood index was prepared for each capital of both present and past status of women entrepreneurs under each tribal community. The livelihood index is the ratio of total actual score obtained by the respondent from all capitals and maximum possible scores of each capital. The following formula is applied to calculate the livelihood index;

Livelihood Index

$$\begin{aligned} & \text{Total score obtained by the respondent under the five} \\ & \text{capitals of livelihood} \\ = & \frac{\text{Maximum possible score of all the five capitals}}{\text{Total score obtained by the respondent under the five} \\ & \text{capitals of livelihood}} \\ & \times 100 \end{aligned}$$

The shape of pentagon was used to show schematically the variation of tribal women entrepreneurs' livelihood capitals. The centre point of pentagon, where the lines meet, represents zero access to livelihood capital while the outer perimeter represents maximum access (Figure 1).

To study the relationship of different livelihood capitals, correlation between the different capitals was computed using Pearson correlation coefficient, also known as *r*, *R*, or Pearson's *r*, a measure of the strength and direction of the linear relationship between two variables that is defined as the covariance of the standard deviations. Pearson's *r* can range from -1 to +1. An *r* of -1 indicates perfect negative relationship between variables, an *r* of +1 indicates a perfect positive relationship between variables and *r* of 0 indicates no linear relationship between variables (Miles and Shevlin, 2001). The following formula for *r* is given below;

$$r = \frac{n \sum x_i y_i - \sum x_i \sum y_i}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} \sqrt{n \sum y_i^2 - (\sum y_i)^2}}$$

Where,

X and y = measurement on variables x & y

n= no. of pairs of observation, i.e. sample size

To test the hypothesis if there was a significant difference between means of the livelihood capitals t-test was done. The working formula for t-test is

$$t = \frac{\bar{x} - \bar{y}}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

The statistical decision was taken if calculated value of 't' is greater than or equal to the tabular value of 't' at the specified level of significance, reject the null hypothesis or accept the alternative hypothesis at that level, otherwise accept it.

## Results and Discussion

In order to achieve positive livelihood outcomes a variety of livelihood capitals are necessary. The effect of entrepreneurship development on livelihood capital of tribal women was analyzed by considering the criteria of capital creation which encompassed five components as human, financial, natural, social, and physical capital. The livelihood status of entrepreneurs before and after situation was documented below. The asset pentagon also indicated the livelihood frameworks which describes the various forms of capital that depict the SLF model of livelihoods. The distance from the point of origin represents the relative importance of the various forms of capital involved in the livelihood framework in the particular location.

### Human Capital

The livelihood status score of total 180 entrepreneurs from Sylhet and Molvibazar district was presented in Table 1. The livelihood index (obtained score divided by maximum possible score \* 100) used to investigate the relationship between five livelihood capitals. Table 1 shows that the maximum possible score of each livelihood capital for *Garo*, *Khasia*, *Monipuri* and *Patro* entrepreneurs were 168, 141, 162, and 69 (ordered score 1, 2, and 3) respectively. Result indicated that the overall human capitals of all entrepreneurs changed from 48.7% to 65.3% positively (Table 1) while *Khasia* drastically improved their human capital 25.2% than others, followed by *Patro* (15.7%) and *Garo* (14.7%) entrepreneurs respectively.

After entrepreneurship development, it was observed that working member of *Garo* entrepreneurs was negative because of migration of male person, and the increased number of dependent person in their family. Due to the matriarchal society of *Garo* community, the customary law is male person has to leave their mother's house after marriage to their mother-in law's house. However, education and training facilities (on-farm and off-farm) was positive with the help of government and non-government organizations which influenced them to develop self-confidence of generating income that ultimately improved their livelihood capitals. In that sense, after entrepreneurship development entrepreneurs were more aware about their child education (28.4%) and visited frequently health care centre (18.3%) for any health hazards. The study also indicated that the educational level has been increased greatly by *Garo* (40.4%) followed by *Khasia* (38.3%) and *Patro* (24.6%) respectively. Out of six indicators of human capital, *Khasia* (30.4%) entrepreneurs were more conscious about their health hazards and visited health care centre frequently than others.

Livelihood Status of Tribal Women

**Table 1:** Changing livelihood assets of tribal women entrepreneurs (n=180)

Assets	Livelihood index of tribal women entrepreneurs (%)									
	Garó (n=56)		Khasia (n=47)		Monipuri (n=54)		Patro (n=28)		All entrepreneur	
	Before	After	Before	After	Before	After	Before	After	Before	After
Education	37.5	77.9	41.1	79.4	47.5	58.0	52.2	76.8	44.6	73.0
Training facilities	33.3	39.3	42.6	83.7	41.4	57.4	85.5	91.3	50.7	67.9
Working member	35.1	33.3	53.9	56.7	46.3	50.6	71.0	88.4	51.6	57.3
Work experience	41.1	55.4	51.1	70.9	43.2	61.1	88.4	92.8	56.0	70.1
Nutritious food consumption	38.7	50.0	38.3	56.7	43.8	52.5	50.7	75.4	42.9	58.7
Visiting health care centre	33.9	51.8	42.6	73.0	42.6	50.0	68.1	85.5	46.8	65.1
<b>Average human assets</b>	<b>36.6</b>	<b>51.3</b>	<b>44.9</b>	<b>70.1</b>	<b>44.1</b>	<b>54.9</b>	<b>69.3</b>	<b>85.0</b>	<b>48.7</b>	<b>65.3</b>
Credit facilities	36.9	75.0	55.3	80.1	58.0	78.4	73.9	95.7	56.0	82.3
Savings	35.1	61.3	49.6	62.4	43.8	64.8	60.9	75.4	47.4	66.0
Household income	38.7	69.6	66.7	73.0	56.8	85.2	78.3	97.1	60.1	81.2
<b>Average financial assets</b>	<b>36.9</b>	<b>68.6</b>	<b>57.2</b>	<b>71.8</b>	<b>52.9</b>	<b>76.1</b>	<b>71.0</b>	<b>89.4</b>	<b>54.5</b>	<b>76.5</b>
Land holding	37.5	52.9	36.87	43.3	40.7	45.7	43.5	56.5	39.6	49.6
Sources of drinking water	35.7	44.0	37.6	39.0	40.1	63.6	50.7	63.8	41.0	52.6
Access to forest	41.7	49.4	41.1	63.1	37.0	37.0	39.1	55.1	39.7	51.2
<b>Average natural assets</b>	<b>38.3</b>	<b>48.8</b>	<b>38.5</b>	<b>48.5</b>	<b>39.3</b>	<b>48.8</b>	<b>44.4</b>	<b>58.5</b>	<b>40.1</b>	<b>51.2</b>
Good ties with neighbour	59.5	98.2	83.7	91.5	82.1	92.6	98.6	95.7	81.0	94.5
Good ties with	37.5	82.1	65.9	89.4	56.2	78.4	86.9	94.	61.6	86.0



local leader/UP/NGO								2		
Good ties with relatives	42.9	74.4	46.8	55.3	51.9	83.3	81.2	66.7	55.7	69.9
Participation in social gathering	33.3	86.3	50.4	83.7	47.5	67.3	71.0	78.3	50.6	78.9
Social status at home	41.1	77.4	48.9	85.8	52.5	85.2	68.1	86.9	52.7	83.8
Social status at outside home	45.2	94.6	51.1	91.5	51.2	93.8	88.4	71.0	59.0	87.7
<b>Average social assets</b>	<b>43.2</b>	<b>85.5</b>	<b>57.8</b>	<b>82.9</b>	<b>56.9</b>	<b>83.4</b>	<b>82.4</b>	<b>82.1</b>	<b>60.1</b>	<b>83.5</b>
Housing condition	44.0	35.7	37.6	77.3	48.1	80.2	53.6	81.2	45.8	68.6
Household assets	33.3	40.5	36.9	75.9	54.9	72.8	34.8	79.7	40.0	67.2
Water facilities	75.6	38.1	66.7	74.5	64.2	66.7	43.5	49.3	62.5	57.2
Sanitation	33.3	74.4	36.9	71.6	38.9	77.2	79.7	98.6	47.2	80.5
Electrical facilities	37.5	57.7	43.9	66.7	52.5	66.7	47.8	66.7	45.4	64.5
Agricultural equipment	33.3	63.1	39.0	46.1	41.4	50.6	50.7	73.9	41.1	58.4
Livestock & poultry owned	38.7	55.4	42.6	53.9	44.4	38.9	69.6	82.6	48.8	57.7
<b>Average physical assets</b>	<b>42.2</b>	<b>52.1</b>	<b>43.4</b>	<b>66.6</b>	<b>49.2</b>	<b>64.7</b>	<b>54.2</b>	<b>76.0</b>	<b>47.3</b>	<b>64.9</b>

**Source:** Field survey, 2015

### **Financial Capital**

Financial stability seems to be a major concern of tribal women. In the tribal societies, a number of local NGOs have provided different financial and technical assistance. NGOs have a programme to support tribal women by providing credit with interest for their income generation activities and have also been involved actively in saving facilities for weekly or monthly basis which directly increased their financial capitals. The overall financial capitals increased from 54.5% to 76.5% respectively. Out of three indicators of financial capitals, credit facilities increased by 26.3% followed by household income (21.1%) respectively.

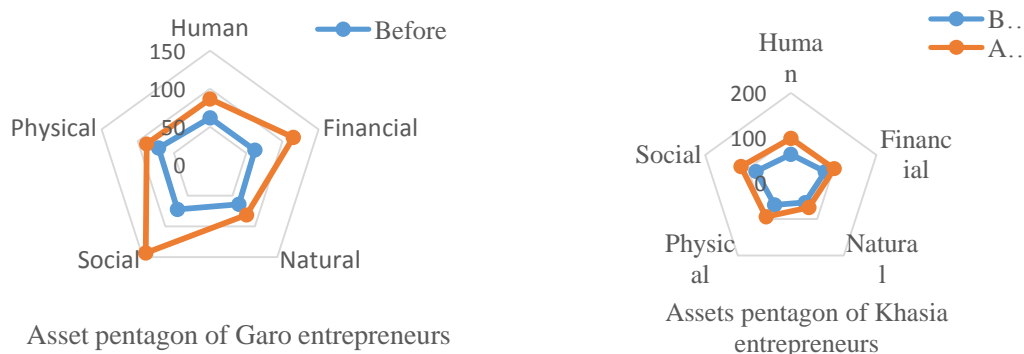
## Livelihood Status of Tribal Women

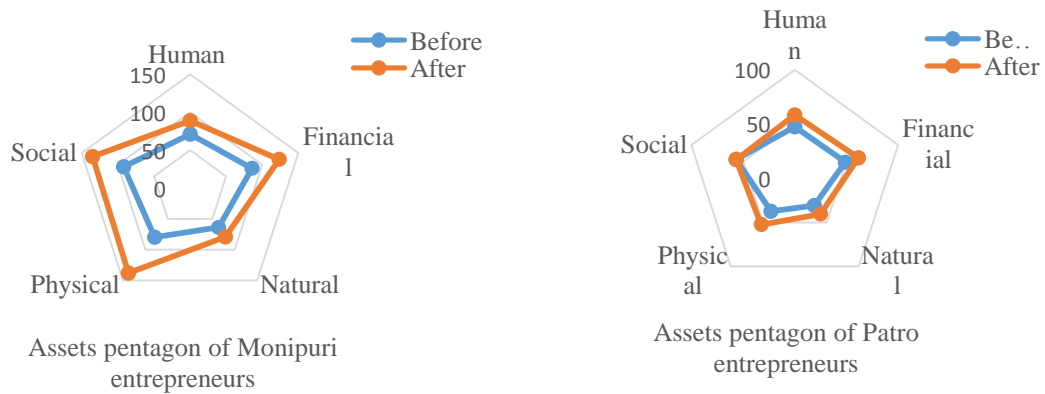
Furthermore, *Garo* entrepreneurs who were associated with local NGOs got credit facilities (38.7%) and increased household income (30.9%) more than past. Results from field survey of livelihood assessment tool are shown in the above radar diagram (Figure 2). The diagram clearly shows that *Khasia's* women have changed more their financial capital due to entrepreneurship development. Financial capital has been increased from 57.2% to 71.8%. Here, credit facilities (24.8%) have also been contributed more than savings (12.8%) and household income (6.3%) respectively. But *Khasia's* household income was poor because of poor contribution of their male counterparts. Asset pentagon (Figure 3) also shown the positive change of financial capitals from 52.9% to 76.1% for *Monipuri* entrepreneurs. Household income of *Monipuri* entrepreneurs have been increased 28.4%, followed by savings (21%), which indicated more household income influenced more savings. *Patro* entrepreneurs have also improved their financial capital through credit facilities (21.8%) and household income (18.8%) respectively.

### Natural Capital

It was also noted that entrepreneurship development has positively impact on changing natural capitals in the study areas. Findings of the study shown that all entrepreneurs have improved their natural capital from 40.1% to 51.2% while land ownership was very poor for *Khasia* and *Monipuri* women. Land ownership was better for *Garo* (15.4%) followed by *Patro* (13%) respectively. *Monipuri* entrepreneurs had no access to forest because of their living place while *Khasia's* women enjoyed more accessibility of about 22 percent. Drinking water facilities were better for *Monipuri* entrepreneurs (23.5%) but it was poor for *Khasia* (14.1%) respectively. The following asset pentagon also clearly shown that natural asset changed but not so much for all entrepreneurs.

**Figure 2:** The change of livelihood assets after entrepreneurship development





### Social Capital

Social capital refers to ‘the social resources upon which people draw in pursuit of their livelihood objectives (DFID, 1999). Enterprise income has been given them to gain social respect and recognition from the community. The overall social capital increased from 60.1% to 83.5%, where the largest improvement was found in *Garo* entrepreneurs (42.3%). Limited scope of joining in bamboo handicrafts activities have been increased conflict among neighbor and bamboo suppliers which negatively affect not only among neighbor (-2.9%) and relatives (-14.5%) but also on their social status at outside home (-17.4%). It establishes a relationship between social classes and the existence of trust and mutually beneficial bonds of *Patro* entrepreneurs, which indicating weak social bonds and small base of trust for low social standing. However, social status at outside was better among *Garo* (49.4%), *Monipuri* (42.6%) and *Khasia* (40.4%) entrepreneurs respectively. As a result, participation in entrepreneurial activities has strengthened their social ties amongst themselves and also with the community they are serving.

### Physical Capital

It can be seen from the Table 1 that tribal women increased their physical capital from 47.3 percent before to 64.9 percent after taking up enterprise activities. The sanitation facility was a highly improved indicator among others, which was available and well equipped for all. In terms of water facilities, it was negative not only unavailability of water sources but also long distance of their living places from a public water supply. They have to collect water for washing, cleaning even for drinking from a public station, which was not sufficient and quality satisfying amount as well. It was therefore, revealed that there were some positive changes indicators with some negative changes (i.e. water facilities) in physical capitals.

**Table 2:** Present Livelihood capitals of tribal women after entrepreneurship development

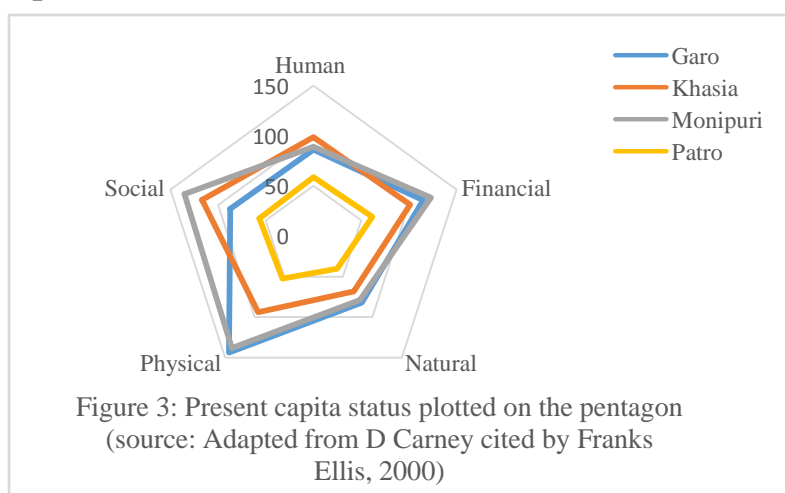
(n=180)

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Livelihood capitals	Changing livelihood assets				Average Change livelihood capitals
	<i>Garó</i>	<i>Khasia</i>	<i>Monipuri</i>	<i>Patro</i>	
Human capital	14.7	25.2	10.8	15.7	16.6
Natural capital	10.5	10.0	9.5	14.1	11.03
Financial capital	31.7	14.6	23.2	18.4	22.0
Social capital	42.3	25.1	26.5	- 0.3	23.4
Physical capital	9.9	23.2	15.5	29.2	19.45
Average change livelihood capitals	21.8	19.6	17.1	15.4	18.5

**Source:** Field survey, 2015

The existing livelihood status of each community was also being summarized and shown in Table 2. It was observed that remarkable changes were found within and between communities. Social capital was highly changed (about 23.4%) while lower in natural capitals (about 11.03%), respectively. Social capital was considerably better for *Garó* with the highest contribution of improving social status and communication. Both *Monipuri* and *Khasia* entrepreneurs were characterized by low access to natural capital relatively poor land ownership systems. Table 2 also shows that the poorest change of livelihood status was found for *Patro* entrepreneurs (about 15.4%) due to poor contribution to improve the overall five livelihood capitals. Livelihood status of the entrepreneurs are summarized using Carney (1998), cited by Frank Ellis schematic approach to compare livelihood capitals. The pentagon has been used to describe the capitals according to the perception of tribal women entrepreneurs. Therefore the capital status plotted in Figure 2 and 3 represents the general overview of the findings on entrepreneurship development to the household capitals of tribal women entrepreneurs.



The correlation analysis was done to check a relation between different capitals, which was presented in the following Table 3. It was clear from the Table 3 that human capital has shown highly positive correlation with natural and financial capital. It means that educated, skilled and experienced human can enrich their natural and financial capitals easily. The significance of correlation coefficient has been checked which showed the correlation between the capital was significant ( $p < 0.01$ ). It means that through entrepreneurship development, human capital of tribal women entrepreneurs were significantly correlated with natural and financial capitals than others.

**Table 3:** Results of the correlation analysis among the livelihood capitals of entrepreneurs

Capitals	Human	Natural	Financial	Physical	Social
Human	1				
Natural	0.714*	1			
Financial	0.679*	0.493	1		
Physical	0.123	0.093	0.082	1	
Social	0.267	0.337	0.274	0.065	1

**Source:** Field survey, \* showed correlation between the capitals

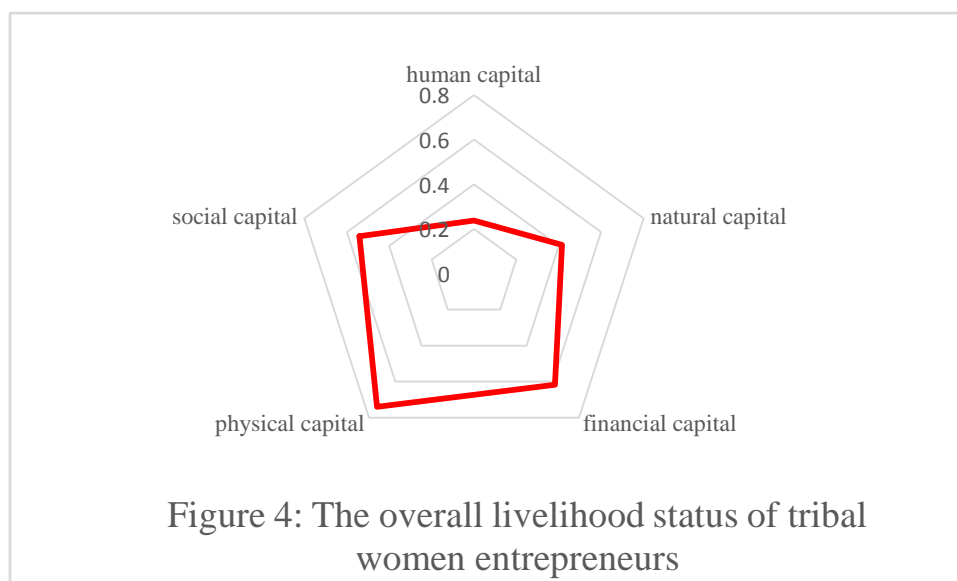
**Table 4:** Comparison between different livelihood capitals

Parameters		Std. Deviation	t-value
Human	Physical	0.072	-94.00
Human	Financial	0.069	-73.79
Human	Social	0.071	-57.75
Human	Natural	0.064	-37.54
Physical	Financial	0.095	17.36
Physical	social	0.042	64.32
Physical	Natural	0.024	178.63
Financial	Social	0.091	11.39
Financial	Natural	0.089	30.59
Social	Natural	0.034	49.31

For testing significant differences between the mean values of the various livelihood capitals, statistical decision was taken if calculated value of t is greater than or equal to tabular value of t at the specified level of significance, reject the null hypothesis or accept the alternative

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hypothesis at that level, otherwise accept it. The results of t-test were presented in the following Table 4. It is clear that there was a significant difference between among livelihood capitals ( $p < 0.01$ ) that means calculated value of t was greater than tabular value, so the null hypothesis was rejected for accepting the alternative.



The overall scores of different capitals of livelihood which affect the livelihoods of tribal women entrepreneurs are depicted using asset pentagon in Figure 4. It was observed that human, natural and social capital had relatively poor contribution to tribal women entrepreneurs in different entrepreneurial activities compared to greater contribution by the physical and financial capital as well.

### Conclusion

To sum the concept of livelihood improvement was important considering five capitals for tribal women who engaged in various livelihood strategies as pig farming, shop keeping, handloom weaving, and bamboo handicrafts etc. A number of livelihood measuring indicators used to refer livelihood capitals as how they responded to their circumstances after entrepreneurship development. The most important aspect was whether and how livelihood capitals were changed through entrepreneurship development. The study shown that most of the entrepreneurs improved their livelihood capitals as well as socio economic conditions which directly improve their livelihood status. The present study was to analyze the changing livelihood capitals which signify the livelihood status of tribal women entrepreneurs in two district of Sylhet region i.e. Sylhet and Moulvibazar. The asset pentagon of five capitals was used to see whether entrepreneurship development changed

their livelihood capitals or not. For livelihood status, it has been observed that the impact of entrepreneurship development for four tribal women groups i.e. *Garo*, *Khasia*, *Monipuri* and *Patro*, in the study areas were more or less changed of their five capitals. The study revealed that *Garo* and *Khasia*'s entrepreneurs had changed their average livelihood capitals more compared to *Monipuri* because of suitable enterprise activities and their level of income. *Patro* entrepreneurs had poorly contributed to improve their livelihood capitals than others due to increased conflict among neighbour, relatives and unavailability of bamboo.

The overall asset pentagon has clearly indicated that physical and financial capital were higher which signified the entrepreneurial activities were more benefited for improving physical and financial capital than human, social and natural capital. The more emphasis needed to be given on improvement of human, social and natural capital. The correlation of different livelihood capitals also indicated that natural and financial capitals were more correlated with human capital. If human capital is enriched than natural and financial capitals are automatically improved in that aspect. Educated, skilled and experienced people are more conscious about using their nature and finance. It is therefore, necessary to give an emphasis on improving human capital at first. For improving human capital, conducting formal and informal education, health facilities, and training in different sector of enterprise activities would be appropriate measure. On the other hand, natural capital could be improved through government intervention of land settlement law for them. For social capital, it is necessary to increase the social development activities and direct involvement of government and non-government organization in the study areas. Finally marketing and exporting facilities for produced product of entrepreneurs also could be an increasing tool of livelihood status.

### **References**

- BBS.Labour Force Survey, 2017, Bangladesh Bureau of Statistics. Ministry of Planning Government of the People's Republic of Bangladesh, Dhaka.*
- BBS.Household Survey, 2010, Bangladesh Bureau of Statistics. Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.*
- Carney, D. Sustainable Livelihoods Approaches: Progress and Possibilities for Change.1998,*  
<http://www.eldis.org/vfile/upload/1/document/0812/SLAProgress.pdf>  
 (Accessed on: 12 January, 2016).

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- Day, S. *Degrading Forest Environment and Local Garo Females in ModhupurGarh, Bangladesh*. 2008, M.Phil dissertation, Department of Geography and Environment, University of Dhaka, Dhaka.
- DFID. *Sustainable Livelihoods Guidance Sheet. Introduction: 1999*, <http://www.eldis.org/vfile/upload/1/document/0901/section2.pdf> (Accessed on 12 December, 2016).
- Ellis, F. *Mixing it: Rural Livelihoods and Diversity in Developing Countries*. 2000, Oxford University Press, Oxford.
- FAO. *Rapid Guide for Mission: Analysing Local Institutions and Livelihoods*. 2005, Food and Agricultural Organization of United Nations, Rome, Italy.
- Guo, S.; Zhang, J. *Analysis of Farmers' Livelihood Capital Vulnerability, Economic Survey*. 2013, 3, 26-30.
- Miles, J.; Shevlin, M. *Applying Regression and Correlation: A Guide for Students and Researchers*. 2001, London, saga Publications.
- Mullah, M.A.S.; Parveen, N.; Ahshanullah, M. *Tribal People and Their Socioeconomic Characteristics in Rangamati Sadar Thana*. BRAC University Journal, 2007, 4, 1, 47-58.
- Pages, E.R. *The Changing Demography of Entrepreneurship. Local Economy*, 2005, 20, 93-97.
- Sarma, G. *An Analytical Study on Entrepreneurial Activity as a tool for Socioeconomic Development of Tribal Women in BTAD Area of Assam*. IOSR Journal of Economics and Finance 2014, 3, 2, 49-52.
- Schumpeter, J.A. *The Analysis of Economic Change, Review of Economic Statistics*, 1935, 17, 4, 1-10.
- Singh, G.; Belwal, R. *Entrepreneurship and SMEs in Ethiopia, Gender and Management*, 2008, 23, 2, 120-136.
- Sun. B.; Zhao, Z.; Sujie, L.; Wen, Y. *Impact of Household Livelihood Strategy Surrounding Nature Reserve in Yunnan*. Journal of Residuals Science & Technology, 2016, 13, 8, 140.1-140.5.
- Yang, Y.; Zhao, F. *Investigation and Analysis of Farmers' Livelihood Capital within the Framework of Sustainable Livelihood*. Agricultural Economy, 2009, 3, 58-64.