Deforestation and Feminisation of Poverty: A Real Experience from Nayagram Block, Jhargram District, West Bengal

[1]Manishree Mondal and [2]Chayon Chakraborty

Abstract: 'Feminisation of poverty', the term coined by Diana Pearce in 1978 simply explains three distinct issues: women face a higher proportionate percentage of poverty than men; women's poverty is more severe than men, and, the incidence of poverty among women is increasing compared to that of men. The relation between women and their immediate environment is very close in the forest villages of rural India. The economic condition of these villagers is not so satisfactory. The womenfolk are poorer than their counterpart. Mostly women are responsible for the daily household jobs, and also contribute to the family income. They depend on forests resources for their household requirements and earning also. Deforestation is a life threat to them; it affects their time, labour and money resulting in further poverty. Thus, women are not only victimised in economic terms but also in social terms. This study narrates a real experience of 'feminisation of poverty' in rural marginal forest villages of Nayagram Block of Jhargram District in West Bengal. This study shows how deforestation, the only one reason of environmental degradation, enhances poverty among women

Keywords: *Feminisation of poverty, incidence, environment, deforestation, experience, income*

Introduction

United Nations Development Fund for Women (UNIFEM) stated that *"the burden of poverty borne by women, especially in developing countries"*. Not only lack of income is the key factor of poverty but also gender biasness and deprivation of capabilities in the societies are equally responsible for poverty. In developing nations like India, society is patriarchal in nature. Women are oppressed in every aspect, especially, from the view point of economic independence. Traditionally, women are dependent upon men as males are the primary earning members within the family. Women are simply treated as domestic worker or the 'unpaid labourer' of the family. Economic condition of women is more distressed than their counter part. Their sphere revolves only around their family.

The term 'feminisation of poverty' first coined by Diana Pearce in 1978, has explained three distinct issues. First, women face a higher proportionate percentage of poverty than men. Second,

women's poverty is more severe than men, and, third, the incidence of poverty among women is increasing compared to that of men.

This scenario has changed with time. At present, women too contribute to their family income, like their male counterparts. Women particularly those living in rural areas of third world countries, play a significant role in managing natural resources. Their task in economic sector as well as household maintenance makes them the daily managers of the living environment. Traditional interpretation of gender equates women with nature and men with culture (Kelkar and Devnathan 1991). "Nature as *Prakriti* is inherently active, a powerful, productive force in the dialectic of the creation, renewal and substance of all life" (Shiva 1988). Thus, women particularly are more vulnerable in terms of economic stability. This is mainly because they have least economic opportunities compared to others. Agriculture cannot support their livelihood because they have minimum landholdings and all of these are not fully cultivable. History shows that agriculture, pottery making, spinning of cotton, wool, flax, and silk are the primary occupations of women (Kosambi 1965). Women have lesser access to productive resources such as land (Agarwal 1986a). Most of the forest dwellers are largely dependent on the natural resources of the forest and women are an integral part of it because women are the primary collectors of these products. Women's absolute contribution to household subsistence from their wage earnings in the poor households are typically significant, which sometimes equal to men's and at other times greater than those of men (Gulati 1978). In marginal areas it is a real experience that how much women earn by their own and have spent all the money on the welfare of the family. They have no savings for their own, no expenditure on self-desires. When there is no collection of forest products, they have no money in their hands. Therefore, they cannot enjoy economic stability and become poorer than male.

Deforestation is the one of the key challenges for rural women in West Bengal from the economic point of view as they are highly dependent on forest products, especially in forest regions. It has been observed from field survey that forest dwellers are responsible for deforestation because they know that forest is their life savers. Deforestation and degradation of forest occurs due to illegal activities of outsiders in general, and by a few corrupted forest officials in particular.

Several schemes are introduced by Government of India to increase women's economic empowerment. For example, Mahatma Gandhi National Rural Employment Guarantee Act 2005, (MGNREGA), Rajiv Gandhi Scheme for Empowerment of Adolescent Girls 2011, (Sabala), Priyadarshini, 2011 etc. These schemes have enhanced women’s economic empowerment in rural India. These Schemes have witnessed mass women participation but still women are primarily dependent on the forest products. There is also gender discrimination in wage rate. Wage rate of women is markedly lower than men. "Thus, there has been a feminisation of poverty in which environmental degradation and pollution have a severe effect particularly in rural areas" (WHO 1990).

Literature Review

Women, and especially those in female-headed households, are often directly dependent on consumption and sale of forest resources than men (Dovie 2003; Khare et al 2000). In multiple societies, men enjoy higher ownership rights than women (Agarwal 2010; Ostrom, 1990;

Rocheleau & Edmunds 1997). From the previous studies it has been noticed that though women's participation in forest management organisation such as forest user group (FUG), raises incomes of women and promotes resource receptivity (Agarwal 2001, 2009; Upadhyay, 2005), but they are tend to be underrepresented in those groups (Agarwal 2001; Das 2011; Kelkar & Nathan 2003). This is mainly because of gender difference in accessing technology and lack of participation of women in resource management organisations (Nuggehalli & Prokopy 2009; Reed 2010). Gender differentiation in labour force and contributions to household earnings are influenced by several factors with varying degrees of influence. These factors are ethnicity, class, and caste, household composition, age, marital status etc. (Byron & Arnold 1999; Cavendish 2000; Cousins 1999; Shackleton & Shackleton 2010). It has been noticed in the literature on gender and development is that income controlled by mothers is more often spent on children's health, education and food, than income controlled by fathers (Blumberg 1988; Kennedy & Peters 1992; Kishor 2000).

It is very common that uneducated and poor women who primarily rely on non-timber forest products (NTFP) are often receive lower status in society than male ones. Women are generally treated as the unpaid labourer of the family. Women are continuously performing traditional roles in the home and limited within household activities, which may restrict their mobility or to participate in the commercial activities on a full-time basis. (Shackleton et al 2008). Women farm workers often receive lower pay than their male counterparts in South Africa and they are 'permanent seasonal workers' who do not even receive any bonus while their male counterparts receive bonus in the same category of work. Oppression continues regarding child care facilities which is not provided at the farm. In one hand, women are intended to return to work after the birth of their child to ensure the livelihood of the family while on other hand, lack of child care facilities at the work place forces them to remain unemployed (Kehler 2001). Thus, women fielded at the lower end of the value chain.(Carr and Hartl 2008; Shackleton et al 2010). It is widely accepted that women's position in society is determined both by their status as paid employee, and the status according to their reproductive and domestic role' (Hakim, 1996). Thus, women are the most vulnerable in the workforce, trimming will affect them more compare to their male counterparts (Kehler 2001).

The Millennium Development Goals (MDGs), in particular Goal 3 – "to promote gender equity and empower women", have incited an attention to socio-economic empowerment of poor women in both formal and informal employment. (Jones et al 2008). This is a step to combat poverty of women. Concept of poverty and its measures determined by the indicator of social well-being or in other words, access to those indicators of social well-being. (Dasgupta & Weale 1992). Key factors of well-being are welfare, health and human rights while the availability of shelter, health care, education facilities and income are first line indicators of well-being. (May et al 2000)

Objective

This paper mainly focuses on women's dependency on forest and estimating how deforestation is responsible for enhancing threats of poverty to rural marginal women.

Methodology

A pilot survey was conducted to get an overall idea on the effect of deforestation on the nearby villagers, especially on women of forest covered regions in Nayagram Block and also to minimise research gaps. Primary survey has been done based on a predefined, structured questionnaire and personal interviews. Data from questionnaire survey are tabulated, deforestation ratio, degraded forest cover of the study area has been calculated and analysed by using proper techniques. To fulfil the objectives of the present study the stratified random sampling technique has been applied. Sample strata have been divided on the basis of caste, tribe and income. A total of 200 samples are collected from the selected four mouzas. Samples are well distributed among the SC and ST families along with the other caste families. Samples are defined based on some criteria which lead the study towards its desired goal. These include:

- Mouzas having forest cover
- Scheduled category dominated ethnic structure
- Poor family economy
- Evidences of deforestation

Types of forest products collected,on which villagers largely rely, are divided into the following four categories: i) fuel wood for domestic use, ii) small twigs, wood, bark for sale, iii) mushroom for personal consumption and sales iv) green leaf of Sal, Kendu and grass and shrub for making broom sticks for sale.
Sample distributions of the study are as follows-

Table No.1 Sample Families for Household Survey.

Mouzas	**No of Families**	**SC[1]**	**ST[2]**	**Other**
Bhalukbasa,	38	2	24	12
Shitalpura,	99	34	40	25
Dalkisol	12	4	6	2
Balimuri	51	17	19	15
Total	200	57	89	54

Now the question is why women are the targeted group? The answer is very simple. Women are mostly involved in collection of forest products like fuel wood; small twigs, branches, bark; mushroom of all edible types; green Sal and Kendu leaves and broom sticks etc. Women are closely related to Mother Nature. Woman / Nature nexus played out historically in the dominant western culture (Griffin 1981). The above mentioned products are used for both domestic and commercial

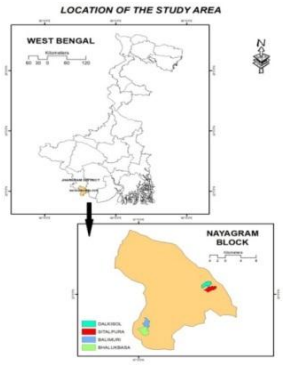
purposes. Deforestation gradually reduces the opportunity to earn money, particularly for women. Thus, deforestation is directly related with women's poverty in rural India. This study mainly focuses on two themes: first, quantitative analysis of collection of few selected forest products; secondly, quantitative analysis of time spent for the collection of forest products. Women are categorised into two groups for collection of samples: (i) women from scheduled category as they are highly dependent on forest-based economy, and (ii) women belonging to poor income group (having monthly income of less than 2000 rupees). The selection was made with a view to the fact that the impact of deforestation is highly expensive for them as they mostly sustain their daily needs from forest products.

About the Study Area

This study is based on the four mouzas of Nayagram Block, Jhargram district[3] of West Bengal namely Bhalukbasa, Shitalpura, Dalkisol and Balimuri. Nayagram is the border block of Jhargram district which shares common boundary with Odisha. Among these four mouzas Bhalukbasa and Balimuri are located near to Odisha. All the four selected mouzas are located near the forest areas of Jhargram district.

Villagers, especially women of Bhalukbasa, Shitalpura, Dalkisol and Balimuri are highly dependent on the forest products. This area is generally termed as economically backward area as there are not too many alternative opportunities for income. Extreme climatic condition, inadequate supply of water, infertile lateritic soil, less purchasing power of agricultural technology, very small landholdings and inadequate financing are the basic hindrances of economic backwardness of this region. Illiteracy is one of the soul constraints behind generation of diversified employment opportunities. Thus, people of this region primarily earn their livelihood from the forest. Women dwellers are the primary collector of forest products such as fuel wood, small twigs, branches, bark, and mushroom of all edible types, green Sal and Kendu leaves.

Fig No.1 Location of the Study Area.



Source: Compiled from Block Level Land and Revenue Department, Government of West Bengal, 2016.

Population statistics of the study areas are as follows-

Table No.2- Population Statistics of the Study Areas

Mouzas	JL. No	Number of Families				Total Population	Total Male Population	Total Female Population	Total Area (Hectare)
		SC	ST	Other	Total				
Bhalukbasa,	174	2	24	12	38	162	85	77	259.36
Shitalpura,	146	107	85	92	284	1174	573	601	322.86
Dalkisol	138	4	6	2	12	43	19	24	131.52
Balimuri	172	24	19	33	76	405	212	193	88.31

Source: Household Survey

Ethnicity and Economy

Income is one of the important parameters of social wellbeing (Smith, 1973). A family is capable to sustain all its basic desires when they have an adequate income. Income is the key determinant of poverty. In our study area, a large number of families belong to Below Poverty Line (BPL) category and it is needless to say that they also belong to tribal groups. Throughout the survey this study tries to explore the reason behind the ground reality of poverty in Bhalukbasa, Shitalpura, Dalkisol and Balimuri. The outcome of the survey depicts that almost half (45 percent) of the ST families have the monthly income of less than 2000 rupees. It is very unfortunate that there is no ST family whose income is more than 8000 rupees per month. Not only the tribal families but also the Scheduled Caste and other caste families have almost similar economic condition in the all four mouzas (Table 3).

It is very clear that an income structure is purely dependent on primary economic activities. As it is stated earlier in this article, due to lack of agricultural activities the dwellers of the Bhalukbasa, Shitalpura, Dalkisol and Balimuri are highly dependent on the forest products. They sustain their livelihood from the collection of these products. Women take the lead role in collecting those forest products and even they sell it in the local market to feed their families. Male members of the family are busy in migratory jobs or they are the sellers in the local markets of those products which are collected by their spouse or daughters or mother from the local forest. So, women are the supplier and male members of the family are the receiver of the benefit. The income is not shared by the male member with their counterparts on the pretext of running the family. If in some cases income is handed over to the female family member then it has been also directed that in which purpose, she has to spend the money. Therefore, the question is who is poorer? Of course, the women. Their poverty is more severe than men. They do not enjoy the freedom to spend the income as per their desires although they are the principal collectors of the forest products. They took the risk of going to the jungle for earning the minimum income to sustain their livelihood. This makes their situation

more vulnerable as women are victimised by several criminal activities, attacked by wild animals, and suffered from several chronic diseases. On one hand the income earned by women has been spent on the family welfare and on other hand there is a threat of reducing their income because of deforestation. In both ways' women become the poorest of the poor.

Table No.3 Families of Different Income Groups.

Income Group (Rupees/Month)	Ethnic Family (%)		
	SC	ST	Other
Less than 2000	16	45	16
2001-4000	29	32	20
4001-6000	32	21	37
6001-8000	17	2	18
More than 8000	6	0	9

Source: Computed through Primary Survey

Gender Role behind the Collection of Forest Products

Human beings are the integral part of nature. People who live near the forest areas are closest to mother earth. As it is stated earlier the villagers of the four mouzas are primarily dependent on the forest products. They collect fuelwood, small twigs, mushrooms, Kendu leaves, Sal leaves etc both for domestic and commercial purposes. This study tries to explore the gender role behind the collection of such forest products. Survey stated that women are mostly associated with this form of primary activities. They contribute to the family income, but a clear differentiation exists among the ethnic groups on this issue. ST women are remarkable in taking charge of the forest products collection rather than the male members. 77 percent of ST women are involved in collection while only three percent male are doing this job. Remaining 20 percent are credited to both male and female. The Scheduled Tribe families (here Santhals and Mundas) are female headed. Females own the responsibility of running the family and work harder than males. Among the SC families 42 percent women, and, 39 percent men are the primary collectors (Table 4).

Table No.4 Gender Role in Collection of Forest Products.

Ethnic Group	Total Families	Male (%)	Female (%)	Both Male and Female
SC	57	39	42	19
ST	89	3	77	20
Other	54	58	32	10

Source: Household Survey.

There is a difference in attitude among the ethnic groups. Status of women is not so dignified in the SC families. The men folk think that these are the duties of women only. Here is a basic distinction

between ST an SC families. It is true that the participation rate among Scheduled Caste and Tribal females is higher than the non-scheduled caste females (Raju and Bagchi, 2013). Women of ST families are forced to work due to their custom, whereas women of SC families are forced to do so due to their inferior status in the society. On the other hand, participation of women from General caste is much lower than male because of the patriarchal outlook. Men think, such kind of activities does not match with their status. For the difference in attitude towards women participation in economic activities results in a huge participation of women from ST families.

Deforestation and Poverty

It has been already proved that over time the study area experienced huge amount of deforestation and degradation of forest cover. Deforestation and degradation of forest deteriorate both the quality and quantity of forest products. Villagers of nearby villages are highly dependent on forest products: both domestically and commercially. Villagers in general and women in particular face too many challenges due to loss of forest cover. Their life became difficult because they lost one of the important sources of their income. Another significant fact is that women now have to spend more time to collect these products. The traditional Indian ideology is that man is linked with the public domain and considered as the bread-earner whereas women's place is inside the house with the responsibilities of child bearing, child care, cooking and cleaning etc. (Boserup, 1970). Thus, additional time spent in collection of forest products hampered the traditional duties of women. In the following sections these two facts will be discussed extensively to answer the basic questions that why and how rural women of forest regions in West Bengal gradually become poorer due to deforestation.

Loss of Money at The Cost of Deforestation

People of the Bhalukbasa, Shitalpura, Dalkisol and Balimuri mouzas earn their livelihood from the forest products which are collected from the nearby forest. Modern amenities for cooking, such as, LPG stove, induction oven etc are rarely available in these areas. Also, the tribal people or economically marginal people are unable to purchase such luxurious items at a very high cost. A large segment of populations of these four mouzas primarily use fuel wood for cooking. Especially the tribal people are highly dependent on the fuel wood. This huge demand of fuel wood is fulfilled from the local forest. As per 2011 Census of India, 60.51 percent households use fuel wood for cooking in Paschim Midnapore district of West Bengal.[4]

Purchasing fuel wood from the market left most of the families unfed for several days, as they do not have sufficient income. The local forest saved them from the threats of severe poverty on a daily basis. The threat of deforestation thus effects the life of the people. The authors have tried to find out impacts of deforestation on the economically marginalized people, especially the women. First, we have tried to measure the impact of deforestation on the loss of quality as well as quantity of forest products in monetary forms. Villagers living in the fringe of forests collect various products from forest.

Primary survey states that between 2011 and 2016 there is a monthly loss of 140 Rupees in Bhalukbasa, 193 Rupees in Balimuri, 70 Rupees in Dalkisol and 210 Rupees in Shitalpura for the loss of collection of fuel wood. 60 kg of fuel wood loss in Shitalpura mouza per month was because of the high rate of deforestation and degradation of forest. This is the highest loss of fuel wood among the four mouzas. Other mouzas faced similar problems as Shitalpura. Economically this is a huge amount of loss for the marginal people. Presently they are forced to purchase such amount of fuelwood from the market. Thus, deforestation is a serious issue in those areas resulting in increased poverty among the villagers of Bhalukbasa, Shitalpura, Dalkisol and Balimuri mouzas.

On the other hand, loss of forest cover reduces the income from other major forest products like small twigs, wood, bark, mushroom, green leaf of Sal and Kendu, broom sticks etc. Mushroom is one of the demandable forest products in the local markets as well as in markets of nearby towns like Jhargram, Midnapore, and Kharagpur etc. Gross monetary loss of those forest products estimated to 555 Rupees, 708 Rupees, 755 Rupees, 655 Rupees per month in Bhalukbasa, Balimuri, Dalkisol, Shitalpura mouza respectively (Table:5). Thus, the villagers of these four mouzas suffered from both ends i.e. domestic purpose and commercial purpose. A monthly loss of 755 Rupees is very costly for economically marginalised people. Loss of forest cover in every year successively kicked villagers in general and women in particular in the curse of poverty.

This leads to two questions. First, how such amount of loss of forest products hampered their livelihood as they do purchase their additional needs from the local market? Yes, they suffer. Presently they need to carry out an additional expenditure to sustain their livelihood on daily basis but their income has not increased successively. Thus, they continuously lose themselves in the darkness of poverty. They become forced to drop their children from school, lost their desires, indebted and suffered a lot due to several economic constraints. Domestic and commercial use of such forest products somehow reduced their family expenditure in terms of liquid money.

Second, how women are suffering and how are they victimised by poverty as this is the problem of the entire region? The answer to this question is hidden in another question, which is, who deal with the basic expenditures of a family in India? Women. Yes, women are the principal auditor in most of the families in India. Men hand over their partial income or sometimes full income, and, direct women to run the family expenditure. But how to run the family with such a minimum earning? Men usually do not interfere in such matters. Therefore, the struggle begins for women. Minimum earnings, along with it a loss of income due to a loss of collection of forest products, make it difficult for women to manage the family household. Loss of income from forest products or purchase of fuelwood from the market makes their life harder year by year. To overcome these challenges women put their lives at risks. Sometimes they keep themselves unfed to adjust the loss of income. There are remarkable inequalities in the allocation of household necessities: women work for longer hours, suffer from poorer health condition due to lesser food intake (Dreze and Sen, 1990). This worsens the situation. Insufficient food consumption and hard work result in malnutrition and anaemia. It even reduces their life span. Not only women but children also suffer. Malnutrition of the mother, especially the pregnant woman, affects the health of the new born baby. Deforestation leads the society of these areas towards an uncertain future. A healthy generation is

the potential resource for a better society or mandatory for a bright future. An empty stomach never nourished a mother's womb. Thus, the effect of poverty is more severe for women than men. It's a serious threat to society.

Table No.5 Loss of money at the cost of deforestation.

Mouza	Collected Products from Forest (Quantity/Month/Family)																
	Fuel Wood for Domestic Use				Small Twigs, Wood, Bark Etc For Sale				Mushroom				Green Leaf of Sal And Kendu and Broom Stick				
	2011	2016	Loss of Quantity (Kg)	Loss of Price (Rs/Month)	2011	2016	Loss of Quantity (Kg)	Loss of Price (Rs/Month)	2011	2016	Loss of Quantity (Kg)	Loss of Price (Rs/Month)	2011	2016	Loss of Quantity (Bundle)	Loss of Price (Rs/Month)	**Total Monetary Loss (Rs)****
Bhalukbasa	150	110	40	140	160	90	60	210	2	1.5	0.5	100	12	9	3	105	**555**
Balimuri	160	105	55	193	180	110	70	245	2	1	1	200	11	9	2	70	**708**
Dalkisol	140	120	20	70	190	110	80	280	3	1.5	1.5	300	13	11	3	105	**755**
Shitalpura	180	120	60	210	170	120	50	175	2	1	1	200	10	8	2	70	**655**

Source: Estimated from Household Survey.

** Estimation of monetary loss of forest products has been done on the basis of local market price.

Loss of Money at the Cost of Excess Time Spent for the Collection of Forest Products

Loss of forest cover increased the travel distance successively in recent years resulting in a deeper travel to the forest for collecting forest products. In this context it has been observed that within a five year of interval (between 2011 and 2016) an additional loss of 1.3 hours for fuelwood collection occur in all the selected four mouzas of Jhargram District. For collecting other mentioned forest products, they have to spend more time than the previous years (Table 6).

Table 8 showed the whole scenario: how much extra time they have to spend in 2016 as compared to 2011 for the collection of forest products. Deforestation is the sole reason for such a situation. Time is money. Thus, total extra time has been calculated in terms of wage rate as per agricultural labourer (Rs 200 per six hours). Finally, we have calculated the total monetary loss per head per family. It has been observed that the villagers of Bhalukbasa, Balimuri Mouza each bear a loss

1551 Rupees per month, and, the villagers of Dalkisol and Shitalpura Mouza each bear a loss of 1502 Rupees per month. It is a big amount for the economically marginal families. They would formulate a better standard of living than the present based on such income. Such a huge monetary loss is one of the major hindrances behind the poverty of this region as well as for the women. As women are the principal collector of such forest products, they directly suffered for such kind of economic failure.

Table No.6 Loss of money at the cost of excess time spending for collection of forest products.

Mouza	**Collected Products from Forest (Hours Spent per Day)**															
	Fuel Wood for Domestic Use				Small Twigs, Wood, Bark etc. For Sale				Mushroom				Green Leaf of Sal And Kendu and Broom Stick			
	2011	2016	Loss of Time (Hours)	Days Engaged/Year	2011	2016	Loss of Time (Hours)	Days Engaged/Year	2011	2016	Loss of Time (Hours)	Days Engaged/Year	2011	2016	Loss of Time (Hours)	Days Engaged/Year
Bhalukbasa	3	4.3	1.3	120	4	6.3	2.3	100	1.3	2.3	1	40	4	6.3	2.3	60
Balimuri	4	5.3	1.3	120	5	7.3	2.3	100	2.3	3.30	1	40	5	7.3	2.3	60
Dalkisol	2	3.3	1.3	120	3	5.3	2.3	100	1	2	1	40	3	5	2	60
Shitalpura	5	6.3	1.3	120	6	8	2	100	3	4.3	1.3	40	5.3	8	2.3	60

Source: Estimated from Household Survey.

Table No.7 Loss of Money in Terms of Excess Time Spending for Collection of Forest Products.

Mouzas	Loss of time in hour/year	Loss of time in Hour/month	Conversion of time into wage rate of agricultural labour (Rs 200/6 hours)
Bhalukbasa	564	47	1551
Balimuri	564	47	1551
Dalkisol	546	45.5	1502
Shitalpura	546	45.5	1502

Source: Computed from the responses of the respondents through Household Survey.

Feminisation of Poverty

Deforestation results in a loss of more than 2000 rupees per month leaving the poor family poorer. In the initial section of this article it has been observed that most of the families have a monthly income of less than 2000 rupees per month (Table:2). There is a loss of more than 2000 rupees per family per month only for the deforestation and degradation of forest cover (Table 8). Deforestation

restricts them to economically upgrade themselves from the lower income group. Thus, the societal progress also gets interrupted because of cutting down of trees by some culprits for their personal benefits. But the impact of falling down of the tress directly hampered the daily life of poor families of surveyed mouzas.

This monetary loss is not the loss of the family or not of the male members. It is actually the loss of women who earn this money. They spend their quality time. They take the risk. They do hard work for earnings. But deforestation and degradation of forest hampered their income. Women are successively losing their earnings day by day, becoming poorer and frequently falling sick due to over work and lack of nutritional food intake. Thus, feminisation of poverty accelerates in those economically backward regions of West Bengal simply because of deforestation.

The darn of poverty prevails in the life of the villagers especially for women of these areas. If there was no occurrence of continuous deforestation then they would have been able to live an easier life than the present time. Women can run the family expenditure with little less difficulties. They would lead a more joyful economic, social and cultural life, particularly, those women who have to spend more time to collect the forest products. If they are not forced to spend extra time on collection of forest materials then they could spend more time for caring their children, family, and particularly for herself.

Table No.8 Monthly Total Loss of Money per Family Because Of Deforestation and Degradation of Forest Cover.

Mouzas	Loss of money (Rs)/month/Family*
Bhalukbasa	2106
Balimuri	2259
Dalkisol	2257
Shitalpura	2157

* Loss of money (Rs)/month/Family in this table is the sum of loss of money of table no 6 and table no 8.

Conclusion

It has been clearly observed that deforestation imposed a serious threat on the people of the study area. Villagers of this region are primarily dependent on the neighbouring forest. Their sustenance of livelihood is mostly dependent on the forest product. Though men are involved on such job but major responsibilities are upon women. Loss of forest cover reduces the supply of forest products on which villagers are highly dependent in terms of domestic and commercial use. Poverty devour their desires, happiness and forced them to struggle only for survival.

Women are facing more challenges than the men in this region. They play a dual role. On one hand they collect the forest products and sell them in the markets. On the other hand they take care of children and other family members and also do other household activities. They spend several extra times per day to collect the forest products because they are forced to travel more distance as forest boundary is continuously retreating. This extra time is the quality time for a mother because they are unable to spend such valuable time for caring their children or family members. They are also

losing their income day by day. Generally, women are supposed to run the family expenditure with the minimum earnings, handed over by their husband. Thus, they become victimised under the curse of poverty. In a family of Indian society if there is shortage of food then women members usually sacrifice themselves by consuming her share and feed her beloved family members. If there should be sufficient income then women would not be suffering from hunger.

This study revealed the truth of poverty, caused by deforestation. It is just an emergency where we have to protect the forest cover. Deforestation and smuggling of forest products should be controlled immediately. Plantation programmes should be organised in those deforested areas with the help of local people and NGOs on a regular basis. Joint Forest Management policy need to be implemented to save those marginalized people from the curse of poverty.

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References

Agarwal, B. 2001. 'Participatory exclusions, community forestry and gender: An analysis for South Asia and a conceptual framework', *World Development*, 29(10): 1623–1648.

Agarwal, B. 2009. 'Gender and forest conservation: The impact of women's participation in community forest governance', *Ecological Economics*, 68: 2785–2799.

Agrawal, A. 2001. 'Common property institutions and sustainable governance of resources', *World Development*, 29(10): 1649–1672.

Agarwal, B. 2010. 'Does women's proportional strength affect their participation? Governing local forests in South Asia', *World Development*, 38(1): 98–112.

Agarwal, B. 1984. 'Rural Women and the HYV Rice Technologies', Economic and Political Weekly, 9: A39-A52.

(1986a), 'Women, Poverty and Agricultural Growth in India', *Journal of Peasant Studies*, *13* (4): 165-220.

Bagchi, D. and Raju, S. 2013. Women and work in South Asia: Regional patterns and perspectives. (Eds.). Routledge.

Blumberg, R. L. 1988. 'Income under female versus male control: Hypotheses from a theory of gender stratification and data from the Third World', *Journal of Family Issues*, 9 (1): 51-84.

Byron, N. and Arnold, M. 1999. 'What futures for the people of the tropical forests?' *World development*, 27 (5): 789-805.

Boserup, E. 1970. Woman's role in economic development Earthscan Publication, (No. 330.91724 B743).

Carr, M. and Hartl, M. 2008 D. *Gender and non-timber forest products: Promoting food security and economic empowerment. International Fund for Agricultural development* (IFAD), Italy.

Cavendish, W. 2000. 'Empirical regularities in the poverty-environment relationship of rural households: Evidence from Zimbabwe', *World development*, 28 (11): 1979-2003.

Cousins, B. 1999. 'Invisible capital: The contribution of communal rangelands to rural livelihoods in South Africa', *Development Southern Africa*, 16 (2): 299-318.

Census of India. 2011. *District Census Handbook*, Paschim Medinipore.

Dasgupta, P., & Weale, M. 1992. 'On measuring the quality of life', *World development*, 20 (1): 119-131.

Das, N. 2011. 'Women's dependence on forest and participation in forestry: A case study of joint forest management programme in West Bengal', *Journal of Forest Economics*, 17 (1): 67-89.

Dovie, D. B. 2003. 'Rural economy and livelihoods from the non-timber forest products trade. Compromising sustainability in southern Africa?', *The International Journal of Sustainable Development & World Ecology*, 10 (3): 247-262.

Dreze, J. and Sen, A. 1990. Hunger and public action. Clarendon Press.

Griffin, S. 1981. Woman and nature: The roaring inside her. New York, Harper and Row.

Gulati, L. 1978. 'Profile of a female agricultural labourer', *Economic and Political Weekly*, A27-A35.

Hakim, C. 1996. Key issues in women's work: Female heterogeneity and the polarisation of women's employment (Vol. 4). A&C Black.

Jones, N., Holmes, R., & Espey, J. 2008. Gender and the MDGs: a gender lens is vital for pro-poor results. Overseas Development Institute.

Kehler, J. 2001. 'Women and poverty: the South African experience', *Journal of international women's studies*, 3(1): 41-53.

Kelkar, G. and Nathan, D. 2003.Forest societies in Asia: Gender relations and change, Gender relations in forest societies in Asia: Patriarchy at odds (Eds.), New Delhi: Sage Publications, 1–32.

Kelkar, G. and Nathan, D. 1991. Gender and tribe: women, land and forests in Jharkhand. Zed Books.

Kennedy, E. and Peters, P. 1992. 'Household food security and child nutrition: the interaction of income and gender of household head'. *World development*, 20 (8): 1077-1085.

Khare, A., Sarin, M., Saxena, N. C., Palit, S., Bathla, S., Vania, F., and Satyanarayana, M. 2000. Joint forest management: Policy practice and prospects, *Policy that works for forests and people*: Series 3, London: International Institute for Environment and Development and Delhi: WWF-India.

Kishor, S. 2000. Empowerment of women in Egypt and links to the survival and health of their infants, Women's empowerment and demographic processes: Moving beyond Cairo (Eds.), Oxford: Oxford University Press, 119–158.

Kosambi, D. D. 1965. The culture and civilisation of ancient India in historical outline (Vol. 358). Routledge and K. Paul, London.

May, J., Woolard, I., and Klasen, S. 2000. The nature and measurement of poverty and inequality. In Poverty and inequality in South Africa: Meeting the challenge (Eds.), Cape Town: David Philip, 19-48.

Nuggehalli, R. K. and Prokopy, L. S. 2009. 'Motivating factors and facilitating conditions explaining women's participation in co-management of Sri Lankan forests', Forest policy and economics, 11 (4): 288-293.

Ostrom, E. 1990.*Governing the commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Reed, M. G. 2010. 'Guess who's (not) coming for dinner: Expanding the terms of public involvement in sustainable forest management', *Scandinavian Journal of Forest Research*, 25(sup9): 45-54.

Rocheleau, D. and Edmunds, D. 1997. 'Women, men and trees: Gender, power and property in forest and agrarian landscapes', *World development*, 25(8): 1351-1371.

Shackleton, S. and Shackleton, C. 2010.Exploring the role of wild natural resources in poverty alleviation with an emphasis on South Africa, Reforming land and resource use in South Africa: impact on livelihoods (Eds), Routledge, 8.

Shackleton, S., Campbell, B., Lotz-Sisitka, H. and Shackleton, C. 2008. 'Links between the local trade in natural products, livelihoods and poverty alleviation in a semi-arid region of South Africa', *World Development*, 36(3): 505–526.

Shiva,V. 1988.*Ecology and the Politics of Survival in India*, New Delhi: Sage Publications.

Smith, D. M. 1973. *The geography of social well-being in the United States: An introduction to territorial social indicators*. McGraw-Hill.

Upadhyay, B. 2005. Women and natural resource management: Illustrations from India and Nepal. *In Natural resources forum*,Oxford, UK: Blackwell Publishing Ltd., 29 (3): 224-232.

WHO. 1990. *Women, Health and Development, Progress Report*, Executive Board 87th Session, Provisional Agenda (EB 87/22), Geneva

End Note:

[1]SC is the abbreviation of Scheduled Caste.
[2] ST is the abbreviation of Scheduled Tribe.
[3]Selected four mouzas are presently situated in Jhargram District of West Bengal. When the survey was conducted these mouzas were in the Paschim Midnapore District. Jhargram is the new born district of West Bengal which was formed in 2017.
[4]In 2011 Jhargram District was the part of Paschim Midnapore District of West Bengal. So that the 2011 Census report available as a whole for Paschim Midnapore District.

Bio Profile of the Authors:

[1] PhD, Associate Professor, Midnapore College (Autonomous)
Email: manishree72@gmail.com
[2]State Aided College Teacher (Category-I), Midnapore College (Autonomous)
Email: chayonchakrabortygeo@gmail.com