

Impact of Deforestation on the Life of the Plain-Bhuiyans (A Case Study of Two Villages of Northern Orissa)

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ABSTRACT The present paper attempts to understand the changes manifested in the dependence relation of the Plain-Bhuiyans with the forest over a period of thirty years. Two Plain-Bhuiyan villages of Koira block of Sundergarh district were studied for this purpose. It was found out that in the past the Plain-Bhuiyans had constructive dependence on forest that kept a balance between their own needs and environmental imperatives. Industrialization and commercialization of the economic frontier along with the enactment of various legislative measures are responsible for a gradual replacement of this constructive dependence by a destructive dependence.

Ecologically, forests influence natural phenomena like rainfall, atmospheric quality, floods, landslides and other natural disasters. Increasing denudation of forest has now become a matter of serious concern to everybody. Deforestation seems to have come to symbolise the situation of over exploitation of natural resources (Fernandes et al., 1988 : 2). Today we have exceeded the "optimal utilisation effort" (Gadgil, 1983 : 113) and consequently, are faced with soil erosion due to inadequate tree cover, draught due to loss of ground water storage, floods due to run of water and landslides due to the denudation of hills (Gadgil et al., 1983 : 12-13).

The ever increasing of commercial demand for forest products following the growing industrialization of our country in the post-independence era leading to wanton destruction of forest without corresponding reforestation has cumulating adverse effects on our rich forest resources. Thus, deforestation, now poses a major challenge to the mankind. If this impoverishment is allowed to continue, it is feared that the next few decades will threaten the very basis of life on this planet (Ratha and Behera, 1985).

The Bhuiyan is one of the sixty-two scheduled tribes of Orissa. They have their major concentration in the districts of Sundergarh, Keonjhar and Mayurbhanj. The Bhuiyans are generally classified into two types, namely, *Pauri* or Hill Bhuiyan and *Mal* or Plain Bhuiyan. This classification is based on their place of habitation. The Hill Bhuiyan usually reside on the hill tops. They are less exposed to the people and culture of the plain areas. The Plain-Bhuiyan mostly reside in foot hills or plain areas along with the caste Hindus (Behera and Nanda, 1990).

OBJECTIVES

The present study takes in to account only the Plain-Bhuiyans for the purpose of its analysis. Some of the major objectives of the study are as follows:

- 1) To compare the past (as it existed thirty years ago) and present relations of the Plain-Bhuiyans with the forest
- 2) To highlight the consequences of deforestation on the life of Plain-Bhuiyans
- 3) To critically examine those reasons which force a Plain-Bhuiyan to exploit its habitat.

METHODOLOGY

The paper is a study of Koira block of Sundergarh, a tribal predominated northern district of Orissa. The block having 112 villages is situated in the eastern part of the district. The Bhuiyan constitutes the largest tribe of the block. Two Plain-Bhuiyan dominated villages namely, Dengula and Raikela, falling within a radius of 7 km from the block headquarters, were chosen for the study. The villages Dengula and Raikela are situated at the foot of the hills Dengula and Tensa, respectively. The number of Plain-Bhuiyan households in Dengula and Raikela are 48 and 43, respectively (Census conducted by the Department of Anthropology and Sociology, Sambalpur University in 1989). Our unit of analysis is Bhuiyan-household. We could not cover one household during the course of our field work. Data were, however, collected from the rest ninety heads-of-the-Bhuiyan-households through a month long field-work conducted between January and February, 1989.

The Rourkela Steel Plant and its auxiliary industries were installed in this tribal predominated dense forest belt sometimes during late 1950's and early 1960's. Forest area of this region was being cleared to provide space for installation of industries and open cast mining. Since then there has been massive deforestation of this region by the reckless extraction of forest resources by national and international industrial commercial concern in collusion with the obliging techno-bureaucratic apparatus of the state.

Therefore, the present study takes into account the year 1960 as the cut point for its analysis. In order to ascertain the relation of the Plain-Bhuiyan with the forest as it existed 30 years ago, we collected data from only those 36 heads-of-the households (out of the 90 sample respondents) whose age were fifty or above. All those respondents were atleast about 20 years old during the period of the early industrialisation. Therefore, they could provide us a comparative picture of the past (as it existed 30 years ago) and present relation of the past Plain-

Bhuiyans with the forest. Interview, observation and case study methods were employed for data collection.

PAST RELATION OF THE PLAIN-BHUIYANS WITH THE FOREST

About thirty years ago this area was endowed with enormous natural resources. Both our sample villages were within a distance of 1 km from the forests. The forests were then dense and deep. It had a large variety of plants. The dense forests had then provided shelter to a number of animals and birds. The Plain-Bhuiyans lived in harmony with the forest to such an extent that this relationship can be described as symbiotic. All aspect of their economic, social, cultural and religious life were closely linked to forest in such a way that it became a life support system of the Plain-Bhuiyans. Thus they had "constructive dependence" on forest that kept balance between their own and ecological needs.

The Plain-Bhuiyan used to meet their basic survival needs like food, fuel, fodder, building materials and medicines from the forest. Edible fruits, leaves, flowers, root, etc. from the tree and crop from slash and burn cultivation provided them with food. Forests were the only means of survival especially in lean season. For instance, the undergrowth of trees which consists of edible herbs, mushroom, tuber, etc., was popularly known as 'famine food' as they were the main means of survival for the Plain-Bhuiyans in lean months. Medicines were got from herbs, roots, flowers or animals and birds from jungle. The Plain-Bhuiyans were traditionally dependent on forest for building materials, agricultural implements, fencing material, furnitures, ropes, mats, leaf plates, leaf cups, etc. About three decades ago they did not have to cut fodder from the forest. They were sending their cattle out to the forest to graze.

Further, the Bhuiyan had a culture geared to keeping a balance between their own needs and environmental imperatives. Consequently, their socio-cultural life had been very

intricately intertwined with the forests. The "constructive dependence" of the Plain-Bhuiyans on forests was manifested in all their religious mechanisms. Substantial part of their oral traditions—myths, legends, folktales, folklores, etc., — reaffirmed the concern of the Bhuiyan to conserve the natural resources of its neighbourhood. For example, manifested in certain trees, bushes or mountains were their Gods and Goddesses, most of them forest deities. Tree like banyan, pepal, mango, mahul, sal, sahada, etc., were considered sacred. These species had very great economic value for them. Thus the species on which they depended the most were given a sacred status and preserved. This sense of continuity was legitimised through totemism. Thus the Bhuiyan had consciously designed the cultural device of totemism in order to provide for a reasonable safety to the flora and fauna of its environment as each clan of the tribe refrained itself from injuring or killing a particular species of animal or plant (Ratha and Behera, 1990).

Added to these were social control mechanisms of the Bhuiyans that ensured that when trees had to be cut down or animals to be killed, the destruction was minimal and it had scope for the renewal of the species. This was seen in the techniques used to cut bamboos and trees to ensure coppicing, the limits put on the quantity of firewood each Bhuiyan family was allowed to use, etc. Similarly, when destruction of trees was an economic necessity as in the case of slash and burn cultivation, the forest deity (*bana devata*) was appeased before the operation started and even then only bushes and shrubs and branches of bigger trees were allowed to be destroyed (Fernandes et al., 1984: 183).

The Bhuiyans were traditionally very much dependent on shifting cultivation. In fact, person like Rothermund (1983 : 55) would say that shifting cultivation was very much rational in the traditional tribal economy and change in this practice is linked to population pressure and other demographic change. Studies have shown that when fallow period is enough to

allow regeneration, *podu* is not harmful to forests. In fact, some researchers have concluded that when a cycle of 18 to 20 years is maintained, shifting cultivation is the most suitable form of cultivation for the hill regions. It is important to note here that about thirty years ago the Bhuiyans were maintaining a fallow period of 15 years for shifting cultivation. The forests thus yielded the type of produce which the Bhuiyan needed to live on. The latter in their turn developed the type of cultural practices required to preserve the forest. Thus, they had a vested interest in the preservation of forests.

THE PRESENT SITUATION

In recent time the nature of this relationship of dependence has been undergoing a slow change. With intervention of industrial interests and gradual depletion of forests in this area, this "constructive dependence" is in the process of being replaced by "destructive dependence", i.e., destruction of forests for survival as against the earlier balance between human and ecological needs (Fernandes and Menon, 1987 : 10).

With the massive deforestation during the last three decades the distance of the forests from both Dengula and Raikela has been increased from an average of 1 km thirty years ago to an average of 5 km today. The reduction in the forest area near the aforesaid villages has resulted in the non-availability of Minor Forest Produce (MFP) which formed more than 50 per cent of food and was a major source of income of our sample respondents. One of the respondents said that "now we require much more human power to collect even the minimum required for survival." The consequent diminution of their income, the absence of viable economic alternatives and employment opportunities have forced many of the Bhuiyans into indebtedness and land alienation to money lender. Our estimate is that about 20.3 per cent of the sample respondents/their forefathers have lost their land to moneylenders over the last three decades and have either become landless or marginal farmers. As a result of this even

today 17 (18.8 per cent) of our sample respondents still primarily depend on shifting cultivation. The non-availability of MFP has further resulted in internal competition. This competition has now caused a great threat to their earlier sense of solidarity.

In our studied area, in the last thirty years the cycle of shifting cultivation has been narrowed down to six years and in some cases even to three years. All the 17 (18.8 per cent) respondents who still primarily depend on shifting cultivation admitted that this has produced adverse effects on land by causing low fertility and soil erosion. Since the land is not left fallow long enough for the forest to grow again, now plants of all species, irrespective of their religious value are cut by these respondents. One of the respondents replied that "no plant can be spared because the over-exploitation of land has made the soil less fertile and it needs all the ashes that can be got by burning every plant that grows in the very short fallow period." Thus it is this reduction in the cycle, not shifting cultivation itself, that leads to deforestation.

Our sample respondents, who deified and glorified nature and forest, have gradually started exploiting it for meeting their needs. Deforestation in this area also has led to the disappearance of forest based fauna. Hunting has almost become a thing of the past and robbed a Plain-Bhuiyan of his easy and free animal protein from his diet. The regular annual burning of forest of this region by the timber and kendu leave smugglers has now hardened the upper surface of the soil so as to make it impervious to the rain waste. This has lowered the sub-soil water level considerably. Now the nearest stream to both the villages dries up in summer and thereby drinking water becomes a scarce commodity here. The summer has now become much more oppressive in this region in comparison to the past. The soil has lost most of its fertility. During monsoon, the rainfall is not sufficient.

Deforestation has further caused many evil consequences in the life of our sample respon-

dents viz., reduced food supplies, increased distance of forest, deprivation of medicinal herbs without access to modern alternative, etc. Some of our respondents told that these are felt more by Bhuiyan women than by men. Since women are the suppliers of food, fuel and fodder, they have to walk the extra distance which increase their workload. 76 (84.4 per cent) respondents admitted that the workload of their female folk has been multiplied many fold with the increasing deforestation of the region. 32 (35.5 per cent) of our sample heads-of-the households often migrate seasonally in search of work since economic alternatives don't exist in their forest region. This too has negative consequences on women. It has now resulted in 14 (15.5 per cent) female headed Bhuiyan households in our studied area. In the absence of their menfolk, these women are left to fend for themselves and deal with exploitative elements such as moneylenders, *Gountia* (Landlords) and businessmen leading to land alienation, cheating in weighing and pricing and sexual exploitation. Today, however, deforestation caused by clear felling and the deterioration of their grazing lands and reservation of many tracts of forests where formerly their cattle used to graze, forces them to cut fodder. The fodder is further staled - something that was unheard of among the Bhuiyans about three decades ago.

36 (40 per cent) of the sample respondents have now taken to destructive practices such as cutting of trees for sale as firewood primarily to urban consumers. What destroys forests is not the use of firewood by the Bhuiyans for cooking but their dependence on its sale for living. This dependence of the Bhuiyans on the sale of firewood for survival is a recent phenomenon in our studied areas.

The various kinds of restrictions on the Bhuiyans virtually put them at the mercy of Forest Department lower level functionaries of this region. One of our respondents remarked that "the attitude of the local forest department people towards them is one of callousness, indifference and neglect". Illiteracy and poor

economic conditions make their situation more vulnerable. Taking advantage of the cold attitude of the officials of the Forest Department, the lower level functionaries such as Forest Guards exploit the Plain-Bhuiyans in collection of forest produce. Besides their exploitation in the exercise of their customary right over the forest, the Plain-Bhuiyans become victims of the commercial exploitation of the forest. The forest contractors have been employing the Plain-Bhuiyans to do unskilled jobs for low wages and in appalling conditions. While their income has been reduced because of deforestation, 71 (78.8 per cent) respondents do not have suitable economic or employment alternatives. They are, therefore, forced to depend more than before on a much smaller area and over-exploit it. The Bhuiyans who had a vested interest in the forest conservation, have now begun to contribute, though on a smaller scale compared to industry, to the deforestation of forest. Thus increase in the sale of MFP, firewood and fodder is an indication of greater poverty among the Bhuiyans. The data presented in this section indicate a clear link between poverty and deforestation by the Bhuiyans.

CONCLUSION

The entry of various industries and mines to this region that view the forest only as raw materials and of the state to whom it is revenue, has clashed with the interest of Bhuiyans to whom it is a life system. In fact, it is a clash of interests between two unequal partners. In the process, the will of the stronger partner has prevailed and the forests have been destroyed over the last three decades to cater to industrial and revenue needs (Viegas and Menon, 1985).

The Bhuiyans still depend on forest for their very survival. The new forest policy has, therefore, affected them more than that of the non-tribal population.

The 1952 policy statement of the Government of India and the Indian Forest Bill 1980 prescribed that the claims of communities should not override the national interests, that

in no event can the forest dwellers be permitted to use the forest wealth at the cost of wider national interests. Those policy and Bill which turned the forests into a source of raw materials, treated the Bhuiyans along with other tribal communities of this region as a threat to these riches. Those have been methodically creating a distance between the Plain-Bhuiyans and their traditional habitat and thereby contributing to the process of the slow erosion of Bhuiyan culture and economy that was closely linked with forest in recent past. Thus the plea of forest conservation has been used by the state as a justification to rob the Plain-Bhuiyans of the resources base of their survival. This now forced on a Plain-Bhuiyan an attitude to exploit the forest as much as he can, whenever, opportunities arise. Various developmental programmes taken up by government in this area have also largely ignored the importance of local man-nature relationship.

In recent years it became a pattern to picture the tribals as the destroyers of the natural resources of national importance. Traditionally tribal economics made marginal demands on their habitat. The attitude towards the natural resources was one of respect due to a sacred gift. Extension of outside administration and impact of non-tribal, however, have brought in a change in their attitude. Heavy demand of minor forest produce from the non-tribals and the growing cash needs of the tribal have now intensified the process of deforestation (Ratha and Behera, 1985).

Therefore, any attempt to protect the forest from the tribal without effort to deal with their basic interest is bound to worsen the situation. The change of tribal attitude towards natural resources that has assumed commercial tones should therefore be understood in the context of its occurrence and the forces operative around (Ratha and Behera, 1990). The factors of powerlessness and lack of viable alternatives for the survival of the tribals have to be borne in mind in any attempt to solve the serious problem of

deforestation. Otherwise one runs the risk of victimising the victims of exploitation.

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