

## DEFORESTATION IN SOCIAL CONTEXT: A CASE STUDY OF PURULIYA DISTRICT IN WEST BENGAL, INDIA

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### ABSTRACT

Deforestation is conceived as a word more 'physical' than 'social' in policies and practices so far. But it is the time to rethink about it. At present, most of the forest destruction in the world and in India also, is caused either through the decisions taken 'socially' by the power-centre or so-called 'illegal' or extra-legal activities evolved through complex socio-economic and political dialectics. Even the consequences of deforestation is attracting more and more social controversies that are not minor in impact than their physical counterparts like soil erosion, loss of bio-diversity and weather imbalances. Thus deforestation in a particular forest land may be defined and should be dealt with close connection to its social context, with particular reference to its different stakeholders residing within, in the vicinity of and far away from the forests.

Puruliya district, where the present study is nestled in, is an economically backward district, situated in the western boundary of the state of West Bengal. At least 14 percent of the district's total land surface is under forest cover. Once lush green healthy vegetal cover of Puruliya is now reduced to discreet patches, due to massive deforestation occurred in recent past. Almost one third of the district's total population belongs to scheduled caste and scheduled tribe categories. Moreover, 95 percent residents live in villages. Thus dependence on forest for food, fodder, fuel, fertilizer, house building materials and medicines are high. But the access to those forest resources is restricted by several forest laws having colonial legacy that give birth to shady practices and instigate deforestation in the district. A perceptive survey through pre-fabricated questionnaires in randomly selected forest and revenue villages in Puruliya district reveals that the present form of deforestation can be defined as a product of the conflict of ideas between the hegemonic power centre and the marginal people of the district. Thus, any attempt to sustainable conservation of forest resources in Puruliya have to consider the strong social factors active behind deforestation.

**Keywords:** Deforestation, Socio-economic dialectics, social factors, hegemonic power centre, sustainable conservation.

## INTRODUCTION:

Deforestation is one of the most volatile environmental issues of the present time that attracted debates over its pros and cons from various scholars of multiple disciplines. Half of the world's original forests has been destructed by 2011, majority being in the last 50 years (FAO, 2011). The problem of deforestation is more acute in the tropics i.e. in the developing and underdeveloped world. There are some reasons to relate deforestation to human society than the nature. *Firstly* there is a debate over the actual definition of the term. While some intended to include any kind of forest clearing by cutting and/or burning as deforestation, some others are more interested in conversion of the forest lands into non-forest uses (Mayhew, 1997). However, these two approaches are different. The first case focuses on actual removal of the vegetal cover. But the second focuses on the administrative process rather than the flora; thus a piece of land without any vegetal cover can remain as 'forest' up-till its status converted in papers. Government of India in general and the Ministry of Environment and Forest in particular believes on the later. So it is almost impossible to detect any kind of deforestation in the country from their documents while it is feared that only half of the so-called forests of India are actually forested. *Secondly*, there is a common trend to emphasise on the physical causes and consequences of deforestation and ignoring their social counterparts. In a world, where almost every natural system is now more or less man-induced, it seems ridiculous to avoid the social connections of deforestation.

In India, forest department is the single largest owner of land resources. Governed by an elitist bureaucracy it rules almost one third land of India by virtue of the power incurred to them through a series of draconian forest laws (Biswas, 2002). Evolved from the British idea of pragmatism to fulfil their colonial ventures these laws had only served and for one's surprise, is still serving the interest of the hegemony, ignoring the plea of the common people whose life depend heavily on forest resources. The whole system of forest management in India is now depends on hefty subsidies and every year it is creating opportunities to attract more. Ironically these subsidies seldom reach the bottom level. Thus the social space between the hegemonic and the traditional societies has become highly volatile in India. The present academic endeavour tries to identify the areas of social conflict between the hegemonic society and the marginal traditional society in the Puruliya district of West Bengal that instigate the process of deforestation in the district.

## BRIEF SURVEY OF LITERATURE:

The survey of literature has been done keeping in mind the empirical nature of the study. Tribes of India' by Nirmal Kumar Basu (1968) provided extensive details on the livelihood patterns, economic and cultural life of the Santhal tribe. Dilip Kumar Goswami (2004) gave a detailed history of the ancient dynasties who ruled in different parts of Puruliya district in different times. '*Kherwal Bansha Dharam Punthi*' by Majhi Ramdas Tudur Reska, translated by Sukumar Shikdar and Sarada Prasad Kisku, published in 2004, has come out as a plentiful source of information about the ancient religion, rituals and cultural evolution of Santhali people; the largest tribal community of Puruliya. Most interestingly, this book presented a huge collection of folklores on the creation of the world and birth of the first man and woman and their eventual diversification into twelve kherwali sects. This book also presents idea of evolution of the Santhali people from a hunter-gatherer stage to the sedentary agricultural stage. 'State of Forest Report-1997' published by Directorate of Forests, Government of India, provided information on the forest cover in the district of Puruliya and its consequent changes with time. The Census Reports and abstract from 1951 to 2011, published by the Government of India stands for the sources of information and statistical data in numerous fields of the study. 'The Annals of Rural Bengal' by W.W. Hunter, published in 1868 dealt superbly on the invasion of British rule in the loosely fitted federal structure and social frame of the rural Bengal in the eighteenth century and its consequences like the great famine of Bengal in 1770. Besides it gave important information on the tribal population living in the western boundary of Bengal and their conflict with the agrarian people of the east.

Besides, numerous articles and reports from different periodicals, chronicles, journals, magazines and news papers like 'The Hindu Survey of Environment' 'Geographical Review of India', 'Swadesh Charcha Lok', and Anandabazar Patrika etc have been studied to satisfy various important aspects of the study.

Although there are lots of literatures available on Puruliya district depicting different physical, social, economic, anthropologic and political elements of the district, there is still no such work is available that focuses on the process of deforestation and its consequences on the aboriginal societies. Thus the present study becomes relevant.

## BACK GROUND OF THE STUDY AREA:

Puruliya is the western border district of the state of West Bengal in India. Geographically the region is located between 22°42'23'' north and 28°45' north latitudes and 85°45' east and 87° east longitudes. It has a long history of socio-cultural revolution. In different ancient Indian literatures this land was referred as *Bajrabhumi*, *Shumbho Bhumi*, *Shikhar Bhumi*, *Radha*, *Manbhumi* etc (Mukhopadhyaya, 2003).

### (i) PHYSICAL SET UP:

Eastern flank of Chhotonagpur plateau, dissected by the valley of river Subarnarekha, is included in the district of Puruliya. Undulated plains dotted with numerous residual hills made of old granite and gneiss dominates the morphology. The underlain rocks of this district are mainly made of Precambrian metamorphic (Saha, 1997). Average elevation of the district ranges between 200 and 300 meters. Maximum elevation occurs at the west where *Ajodhya* massif raises abruptly up to 600 meters from the Baghmundi plains. General slope of the district is from west, north-west to east, south-east. Slope varies widely in direction and magnitude in local level. Thus the highest slope is found in the western part of Puruliya near the *Ajodhya* hills and the lowest slope is observed in the middle of the district. Some of the mightiest rivers of south Bengal have originated in Puruliya. Damodar, Dwarkeswar, Kangsaboti, Kumari, Shilaboti and Subarnarekha are some of them. All these rivers are non perennial in character and mostly rain-fed. The prevailing climate is moist tropical. Thermal extremity and monsoonal vagaries are the dominant features of the climate. *Alfisols* cover most of the district. These are derived laterite, transported and deposited by several rivers having their origin in Chhotonagpur plateau (Biswas, 2002). *Inceptisols* are found in narrow troughs along the principal river basins. Dry deciduous forests of *Sal*, *Palash*, *Mahua*, *Asan*, *Kusum* and *Shimul* dominate the combination of trees.

### (ii) SOCIO-ECONOMIC SET UP:

Puruliya district comprises of twenty Community Development Blocks (C.D. Blocks). There are three municipalities i.e. Jhalda, Puruliya and Raghunathpur. Apart from that, the district has nine census towns. The whole district is divided into three subdivisions i.e. Sadar west, Sadar east and Raghunathpur (GoWB, 2004). The land is known as the habitat of aboriginal *Austro-Dravidian* people from Neolithic period. *Santhal*, *Munda*, *Bhumij*, *Kora*, *Sadak*, *Oraon*, *Birhore* etc. are some eminent tribal groups of this region (Basu, 1968). They practice animism and totemism and have distinct social structures and institutions. With the passage of time, their institutions are succumbing to the pressure of increasing cultural-political influences of the surrounding agrarians of Hindu community (Sidique et.al, 1998).

Puruliya is one of the backward districts of West Bengal in terms of economy and human development. This district ranks 15<sup>th</sup> in West Bengal according to population size and 5<sup>th</sup> in its land surface area. Scheduled caste and scheduled tribe population together form 36 percent of the district's total population. Notably is drought prone the district has the second highest concentration of Scheduled Tribe population in West Bengal (Census, 2011).

## FOREST RESOURCES OF PURULIYA DISTRICT:

According to classification of Chapman and Seth (1968) forests of Puruliya district comes under “group – 5, tropical dry deciduous forests; sub group – 5, Northern dry deciduous forests, sub type 5B/C1C – Dry peninsular sal- West Bengal lateritic tract” (GoWB, 1997). About 14 percent of the district's total land is under forest cover but these forests are too much fragmented. Randomness of forest patches is greater in the southern and western part of the district than in the north.

In the last couple of decades, forest cover had actually increased in Puruliya. However, canopy density had reduced at the same time. At present only 181 sq.km is considered as dense forest where canopy density is 40 percent or more. ‘Open’ forest where canopy density ranges between 10 percent and 40 percent, occupied rest 426 sq.km. Apart from that there are 32 sq.km scrub land with less than 10 percent canopy density in Puruliya district (GoI, 1997).

**(i) Flora and fauna:** Forests of Puruliya district contains immense floral and faunal variety. At least 82 types of trees, 44 types of shrubs, herbs and weeds, 14 types of climbers and six kinds of bamboos and grasses are found here. These forests contain 0.98 percent of the global fauna, 10.22 percent of total Indian fauna and almost 25 percent of West Bengal's wild life (Chattopadhyaya, 2007). These include 37 types of mammals, 160 varieties of birds, 29 types of reptiles and 14 types of amphibians (Agarwal, 1992).

**(ii) Utilization of forest resources:** Timbers produced from forests of Puruliya are mainly used in construction

sector. Poles and posts made of Sal wood (*shorea Robusta*) is the principal product of the Puruliya forests. Next important produce is fuel wood that is used in furnaces or converted into charcoal. Some pulp woods are also produced that are used in paper mills. Forest department is the sole proprietor of collecting and auctioning those resources. Apart from those hegemony marked resources, aboriginals collect plenty of booty from the forests that they consider boons of the Mother Nature. These materials range from consumables like various fruits, leaves, tubers, shoots etc. eggs and meat, fodder for the domestic animals, house building materials like bamboo and *Kashi* grass, medicines like amla, bahera, arjun or swet pan to the materials for handicraft like shellac, cane, babui grass etc.

**(iii)Dialectics of resource utilization:** Greatest irony of Indian forest bureaucracy is that forest dwellers are the folk that depends most on the forest resources but almost all the beneficiaries from those resources are non-forest dwellers. The department that calls for profit maximization from the forest lands are considered as the defenders and protectors of the same but the marginal people, depending heavily on forest resources for subsistence are kept away like harmful pests. Hegemonic perceptions often fail to realise the forest beyond woodlots or land-bank. Auctioning forest blocks to timber merchants or leasing out forest lands for quarrying or mining is thus considered easy way to make profit. Conversion of forest lands to non-forest uses in the name of 'greater wellbeing of the people' or for the 'National interest' like construction of dams and reservoirs, rail-roads or express ways, even industries or housing projects is considered justified. But the people living in harmony with the forest for hundreds of years by carving their lifestyle, material culture and social institutions in such a way to strike the balance with the Mother Nature and to restrain sustainability of the natural system is taken out of the equation at the time of making decision about the land they are living or the forest stretch they are dependent upon.

In Puruliya district, considerable area under forest has been converted to other purposes in recent past. Construction of pump storage hydroelectricity project over Ajodhya plateau has consumed 631 acres of dense forest land in the district. In compensation the district forest department has got 575 acres of vested land at Barabazar block where they started raring a plantation of exotic species. Several hundred acres of forest land has also spend for coal and black stone mining and establishing industrial estates at the northern blocks of the district.

## DEFORESTATION- AN EMERGENCE THROUGH TIME:

Deforestation is not an abrupt or discrete process. Its vigour and extensiveness is achieved through a complex and dynamic socio-cultural interface played between the natural forest system and different stake holders from the human society. The objectives and attitudes of the stake holders to the forest resource utilization are of particular importance. So, it is necessary to consider the emergence of deforestation process through the changing social perspective of Puruliya district. Considering the British colonial advent in the district as a socio-cultural watershed, the entire period is divided into three segments i.e. pre-colonial or the time of tribal indigenous rule, the time of colonial take over and the post-colonial or the legacy period.

## TRIBAL INDIGENOUS RULE AND THE FOREST:

Prehistoric relicts have been found in several places in Puruliya. That proves that the land was a preferred habitat for some human races from ancient times. However little is known about their material culture at present. Anthropologists consider present day tribal groups like Santhal, Munda, Bhumij, Koda, Sabar etc as the descendants of the ancient people of Puruliya. In absence of written documents it is wise to look into the folklores, songs, rituals and beliefs of these people to understand the material culture of their ancestors in general and their relation with the forest in particular.

In *Kherwali* religion it is believed that the ancestors of all Santhali, Munda and Bhumij people were migrated to their present habitat from a distant place called '*Hihiri-Pipiri*'. Lack of greenery and food was one of the causes of their migration. Their journey was marked by several phases named after seven trees. Among those seven trees, Sal (*Shorea Robusta*) or the '*Sare-Sarjam*' acquires the highest spiritual place (Tudureska, 2008). So Sal is considered sacred and a must in every auspicious rituals of the tribes of Puruliya. Still now in Puruliya, the '*Jaher Errra*' or the sacred residence of the Village God just outside the tribal villages, can be found wrapped in a dense cover of Sal trees. Beside Sal, Asan and Karam are two other trees worshipped by the tribal people in Puruliya. It suggests a strong bond of their ancestors with the adjacent forests. Folklores say that the twelve sects of *Kherwals* like *Majhi*, *Soren*, *Tudu*, *Kisku* etc evolved from different body parts of a deer called '*Ma Murum*' that was hunted by the sons of '*Adi Pita- Mata*'(ibid). The twelve sects thus evolved are commissioned



with particular duties in social life and several taboos regarding hunting was fixed for each sect. 'Marangburu' was considered as the 'messenger of the highest god', who roams in disguise of a tiger. These are probably accounts of the early stage of human habitation in Puruliya when hunting and gathering mode of resource utilization prevailed and the society was dependant on the bounty of nature.

Tribal people started agriculture only after coming in touch with the grain farming communities of the river plains. Some sects of them like Mahatos acquired the skill greatly and became totally agrarian tribe. Others opted for agriculture as a side job. Even then, forest was the source of livelihood for most of the communities. There were some verbal yet reliable customary rules of forest resource utilization revered by the tribal communities. Forest was the property of common people. No person or clan was permitted to claim its exclusive rights. The amount of forest resources harvestable by each community or village was restricted. Any dispute about that was mitigated by a court of five wise men from selected sects. There was also a higher court at 'paragana' or regional level to hear the grievances that cannot be solved at the lower level. Personal grievances were dealt at the village level and no one was permitted to extract forest resources at a commercial basis. These system of forest management prevailed successfully for hundreds of years before disrupted by the colonial takeover of forest resources by the British rulers (Gadgil et.al, 1992).

### THE COLONIAL TAKEOVER:

British East India Company got the exclusive right of revenue collection from Bardhaman and Medinipur *Chuklas* of the then Bengal province in 1763 (Mukhopadhyaya, 2004). Northern part of Kasai River was included in Bardhaman and the southern part in Medinipur. First hundred years of colonial regime was devoid of any particular forest strategy. The British rulers focused on increasing revenue from the *Jungalmuhal*. Unlike the valued teak forests of the Central Province, they indulged in forest clearing and converting the land into agricultural fields (Gadgil et.al, 1992). The mineral resources, especially the coal reserve under the soil of Puruliya caught their attraction. The 'Permanent Settlement Act' of Lord Cornwallis in 1793 and the 'Sunset Law' created massive upheaval in the social system of *Jungalmuhal* as many of the ancient rulers were replaced by absentee land lords. These new ruling class had no idea about the inseparable bond between the tribal people and the forest and they cared little about the sustainability of forest system. So, they rampantly went on leasing out the forest for clear felling and converting the land into other uses like sericulture, road construction, setting up small dams on non-perennial streams to promote grain farming etc. Thus an ethical clash became inevitable between the tribal people and the British along with their native counterparts. The famous 'Chuar revolt' was an outburst of that.

The *Chuar* revolt changed several things in *Jungalmuhal* and the tribal people got back some of their rights over the forests. But forest clearing proceeded with great vigour and much of the district's forests obliterated totally for supplying fuel wood and charcoal to the towns. It was Lord Dalhousie, who first ever conceived the idea of a particular forest policy in India. He established Forest Department in 1864 under a German botanist, Sir Dietrich Brandis. Sir Brandis and his several other colleagues tried to establish a sustainable forest management system but it seems that their scholastic endeavours ultimately ended in vain to make way for the colonial interests of the British rulers (Biswas, 2002). So, Puruliya district got nothing but tags of protected forests for two places i.e. Matha and Kuilapal (Voelcker, 1893). On the contrary, forest people lost their rights over the forest resources and it became a matter of privilege provided by the forest department. Eventually the forests of Puruliya district became a supply ground of poles and railway sleepers. Coppicing of Sal got the importance. Other species of the mixed deciduous forest were neglected and cleared massively rendering injustice to biodiversity. Thus the original succession was replaced by a human induced secondary succession where Sal became the sole standing crop in most part of the district. The draconian forest act of 1927 gave the forest department monopoly on rights over the forest resources and banished common people from their forests. Forest officials became extremely powerful. Activities like entering the forest, cattle grazing, collection of lesser forest products; even fishing from the water bodies within the forest became prohibited and punishable offence under law. At the same time leasing out of the forest land to commercial farms gain pace.

### LEGACY OF THE CROWN:

India became sovereign in 1947, but it took long five years to form a new forest policy. Mean while, dilemma in enacting the provisions of 1927's forest acts i.e. acquisition of private forests enabled the private stake holders to clear cut the forest lands under their control. Again the turmoil at the time of inclusion of Puruliya district into the state of Bengal from the former state of Bihar created the opportunity for the crooks to cut down several

acres of forest land. The forest policy of 1952 emphasized the claims of the communities living in and around the forests, though rising finance from the forest lands was given more importance than securing the rights of the forest dwelling communities. Even the fifth clause of this policy dictated that it is not the solemn right of the villagers to rip forest resources just because their village is situated near that 'national asset' (Mishra, 2002). Thus the new policy in essence became an extension of the colonial policy that only pays interest in making profit from the forests (Kulkarni, 1987).

The forest policy of 1988 presented a paradigm shift in utilization and management of forest resources. Rights of the poor people living at forest fringes were recognized by stating the role of fuel wood, fodder, minor forest products and small timbers in sustaining their life. More precisely, the new policy sought to include those people in restoration and maintenance of forests. Whatever the goal was, the well grown up forest bureaucracy of India did not show their good intension to translate them into reality. Thus the forest people remained 'intruder' in their own lands and forced to commence 'unlawful' activities to sustain their life. The economic incentives coming from grey market sources make forest conversion more profitable than forest conservation hence no economic value is readily apparent from them. The poor payment from forest department regarding forest protection, raising up, conservation and harvesting is making more and more people disillusioned about the present system. For example, after toiling two decades, the members of Joint Forest Management Committees (JFMCs) in Puruliya got just Rs.140/- per member per year, despite the forest they regenerated had immense economic value let alone the environmental causes (Bera, 2011).

### CONSEQUENCES OF DEFORESTATION IN TRIBAL SOCIETY:

Much of the tribes in Puruliya, like any other part of the world have evolved through complex socio-ecological environments where forest plays a conjugal part. So, it is obvious that loss of forest cover has a derogative effect on those societies. Forest is like a living entity to most of the tribesmen that offers something more than the daily needs. It is the source of spiritual powers and divinity that keeps their social bonds alive. There is a proverb among the aboriginals of Puruliya that states- "a tribesman can be far from the forest but forest lives close to his/her heart". The want on forest destruction in Puruliya is thus not only affecting the local small economy, it is causing a breakdown in the social institutions as well.

Physically deforestation means decrease in employment from the forests in a local scale. It also means unavailability of the everyday needs like fuel, fodder, small wood and medicines (Kumar, 2001). When the deforestation reaches its peak in a particular region, the resource crunch aggravates and in extreme conditions, when the forest totally disappears or became so degraded that cannot support its normal activities, the community dependant on that particular forest patch becomes critically exposed to threats of socio-economic breakdown (Khoshoo,1996). The dark shadow of hunger and starvation looms large and the society become extremely vulnerable. Mass exodus occurs when the situation turns worse by prevailing drought or crop failure due to uncertain weather. Even in the time of normalcy, huge streams of migrants hit villages and towns of the eastern neighbour districts and toil there sweats at the agricultural fields of the Ganga plains or in brick kilns or construction sites at cities and towns, to earn a miser living. This is co-locally termed as '*Pub Khatte Jaoa*' (going east to earn a living) that denotes the broken condition of forest-based self sustaining economy of Puruliya at present.

The abysmal condition of regional economy is now gradually leading to cultural decadence in aboriginal societies. Extensive interaction with the paddy growing communities of the alluvial plains has developed a sense of inferiority within the forest-based people of the district. Most importantly, the cosmopolitan people living in towns and cities has induces 'urban' values like the 'concept of individualism' within the migratory folks that contradict heavily with the ethnocentric values of clan controlled traditional societies. Dignity of the social institutions of '*Majhi-Laya-Gadait-Paragana*' losing its way to hegemonic structures and a cultural vacuum is developing within. The otherness of the people, particularly the young ones, both from their society and the hegemonic world is leading toward social unrest and widening the gap between two societies. Where the facets of mutual interaction continue to seal in this way, a violent conflict is the only thing that can be expected.

### CONCLUSION:

The above discussion points out some aspects that indicate that the process of deforestation is much more socially constructed than naturally invented. Also the impact and aftermath of deforestation is more thorough and complex within the society, particularly the forest-based one. But the government is not willing to

appreciate the social connections of deforestation, at least that is what apparent from the reports of the forest department. Probably that is simply because they are the one who instigate the whole process or more likely, the victims are largely tribal people who are constantly getting marginalised. Here, in Puruliya, a place that is experiencing extreme violence in recent years in form of clash between the state forces and some self announced avengers of 'depressed, oppressed and downtrodden' tribal people, question is rising fast that whether it is the time to change the stance at government level and accept the consequences of their past acts to deliver social justice to the people of Puruliya, which they are long denied off.

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