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### **A Study on the Forest Based Livelihoods in Some Forest Fringe Villages in Medinipur Sadar Block of Paschim Medinipur District, West Bengal**

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#### **ABSTRACT**

Concentration of forest is closely associated with concentration of tribal population as these tribal people are dependent on forest for their livelihoods. Forest meets their basic needs by collecting fuel wood, fodder, small timber as well as by providing them economic sustenance. Same scenario is also present in the western part of Paschim Medinipur district of West Bengal. In Paschim Medinipur district most of the villages of the western part are associated with forest and the livelihoods of the people of those areas are completely depending on the forest. In the present study eight forest fringe villages have been selected from Medinipur Sadar block of Paschim Medinipur district. Sal (*Shorea Robusta*) is the main forest product here. Collecting sal leaf, making sal plates and selling them to the market are the main sources of income of the rural forest people. Proper maintenance of forest by collection of various forest products, selling them to the markets and benefit sharing to the rural poor especially forest fringe people can uplift the economic condition of the area. In the present study various livelihoods of the forest dwellers are ranked according to their importance based on the field investigation, which reveals the dependency of livelihoods on the forest and the impact of Joint Forest Management (JFM) activity over the people is also studied. Finally, some rational development plans are given which are utmost essential for linking all the social and economic needs as well as to improve the socio-economic status of forest-dependent communities in the study area.

**KEY WORDS-** Forest, livelihood, dependency, development plan, Joint Forest Management.

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## INTRODUCTION

After the development of the concept of space a term was coined out by E.L Ullman<sup>1</sup> in 1945 to indicate the interdependence between geographical areas. It also revealed people-environment relationship within a single area, which is known as spatial interaction. The concept of spatial structure was given by D. Gregory<sup>2</sup> in 1985 in the book named as “*Social relation and spatial structure*”, where the resource sharing within the spatial structure is highlighted. In the present study an attempted is made to understand the nature, dependency and utilization of forest resources in some forest fringe villages. The district Paschim Medinipur is thickly forested and contains large share of the forest lands of West Bengal. There is 176,183 hectares of land under recorded forest area (i.e. 18.95 percent of the total area) of the district. All the forest areas of the district are categorized as reserved forest, protected forest and un- classed forest. Forest coverage is found in various patches or mosaic. It is not always continuous forest. In the district western and middle part, the topography is little undulating and most of the land is covered with laterite formation except the riverside area. In that little undulating part of the Paschim Medinipur district most of the villages of the western part are associated with forest and livelihood of the people completely depends on the forest. Social forestry is going on there and the forest is maintained by Forest Protection Committee (F.P.C). At present some work is going on by Forest Department (F.D) such as Jatrofa cultivation in waste land, soil conservation etc. In the selected villages various schemes like Rastriya Sam Vikas Yojana (RSVY) and development of eco-tourism as in Gopegarh etc have already been implemented. Whole area is poverty stricken and percentage of Schedule Caste and Schedule Tribe population is much higher. In this region various developmental works like village resource development, micro watershed development can be integrated into Joint Forest Management (JFM) villages for the optimum use of forest. Besides this agro-forestry may be introduced in these areas, cottage industry of sal leaves, mats, ropes from sabai Grass (*Eulaliopsis Binata*), handicraft with bamboo etc may bring economic benefit to the forest fringe dwellers. Though agricultural practice is continued here but the scope of agriculture is limited and proper utilization of forest and forest products can earn much economic benefit to the rural people. So here a study has been made on the forest fringe villages of Medinipur Sadar block to understand their dependence on forest based on livelihoods and the socio economic-scenario of the villages.

## METHODOLOGY AND DATA SOURCES

The methodological procedures of this research work are divided into following three stages: pre field, field and post field stages<sup>3</sup>. In pre field stage eight forest fringe mauzas have been selected

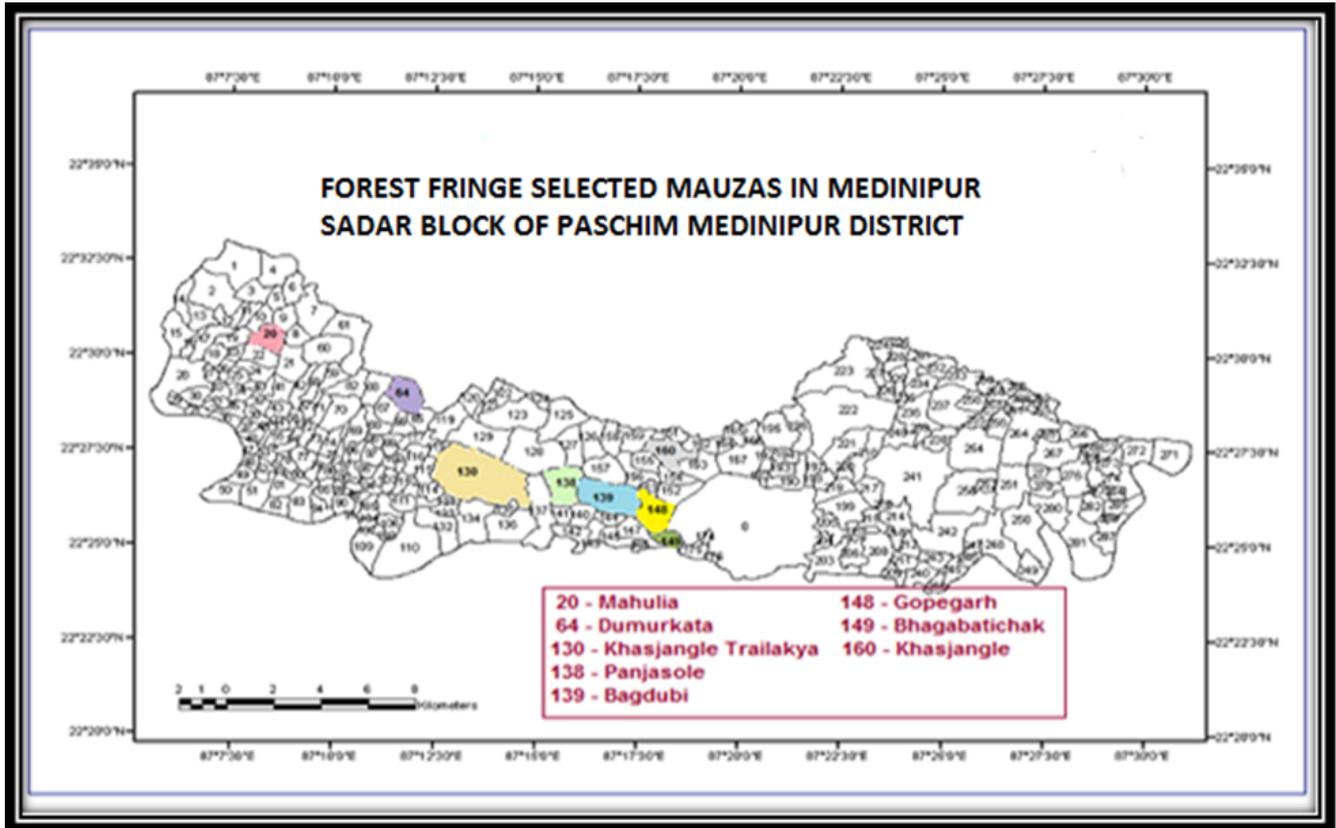
from Medinipur Sadar block. Then detail study has been made on percentage of forest coverage, access to forest products, selling process of the forest products, benefit sharing etc. Field stage mainly involves field study, sample survey and collection of primary data through questionnaire and secondary data from various sources. From the selected villages three hundred household are surveyed. Primary data are collected through questionnaire on various livelihoods of the villagers and socio-economic status whereas secondary data are collected from District Land and Land Reform Office, District Collectorate Office, Bureau of Statistics, Midnapur Town. Then the post field stage which mainly involves data compilation, computation, processing and analysis. Here ranking method is applied on the livelihoods of the villagers and prioritization of the livelihoods is done to understand the dependency of the people on the forest. Finally, at the end some suggestions and conclusion are given. Figures and maps are prepared by incorporation of information from Topographical maps of Survey of India (Map nos. 73 N/3, N/4,N/7, N/8, N/11, and N/12) and Block map of Medinipur Sadar of Paschim Medinipur District. The dependence of the forest fringe people are analyzed based on the various means of forest based livelihoods found in the study areas through ranking method, and then various livelihoods are ranked based on their relative importance, the scenario of JFM in the study villages are studied in details, finally based on major findings of the present study suggestions are given for the betterment of these forest fringe villages.

## **DISCUSSION AND RESULT**

### ***a) The study area***

The study area mainly covers eight mauzas of Medinipur Sadar block of Paschim Medinipur district. Hare the livelihood of the people of the villages depends on the forest. The villages are selected based on more than fifty percent area under forest. The selected mauzas of the district are as follows -

Mahulia (J.L No.20) from Dherua Gram Panchayet, Dumurkata(J.L No.64) from Chandra Gram Panchayet, another one mauza Khasjangle Trailokya (J.L No.130) from Manidaha Gram Panchayet and the five mauzas from Tantigeria Gram Panchayet which are Panjasol (J.L No.138), Bagdubi (J.L No 139),Gopgarh (J.L No 148), Bhagabatichak (J.L No 159) and Khasjangle(J.L No 160).



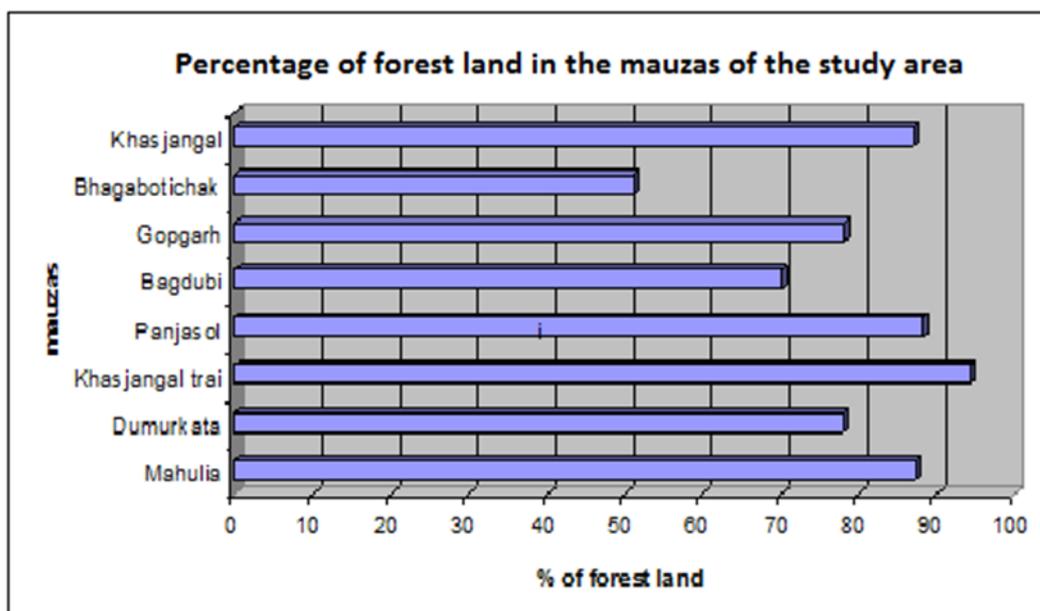
Source: District Land and Land Reform Office, Medinipur Town

**Fig.1. Forest Fringe Selected Mauzas in Medinipur Sadar block of Paschim Medinipur District.**

In the study area more than ninety percent forest concentration found over Khasjangal Trailokya. Mahulia, Panjasol, Khasjangal are registered between 80 to 90 percent forest concentrations. Whereas Bagdubi and Bhagabatichak are registered 59 percent and 51 percent respectively. Other mauzas are experienced forest cover between 60 to 80 percent.

***b) Forest types and forest resources in the study area***

The study area is under Midnapore Forest Division of Paschim Medinipur district. Three legal types of forest have found here, which are reserved forest, protected forest and un- classed forest. Joint Forest Management practices continue over the region. 90 percent of the total forest areas are managed through the Forest Protection Committee. Mainly three types of forest found here, such as sal coppice, open scrub forest including blank and degraded and plantation.



Source: Census, 2001.

Fig. 2 Percentage of forest land in the mauzas of the study area.

**c) Access to forest product**

The forest plays very important role for benefiting the local people. Here people’s livelihood completely depends on the accessibility of the forest products. Based on the people’s accessibility these products are classified into two categories, such as major products and minor products. And then based on the total products collected further classification has been made which is as follows - a. Products for sale b. Products for house hold consumption.

Table 1. Major and minor forest products in the selected villages

Major products	Minor products	Product for sell	Product for household consumption
1.Sal wood 2. Fuel wood	1. Tendu leaves 2. Mohua 3. Sal leaves 4.Honey 5.Fodder	1.Tendu 2. Mahua 3.Sal leaves 4. Fuel wood	1. Sal leaves 2. Fuel wood  3. Fodder

Source: Primary Data

**d)Selling process**

After the collection of various major and minor forest products some products are prepared for sell and other products are kept for household consumption. The selling procedure is mainly decided by the Forest Protection Committee but interferences also come from forest officers and businessmen from the outside. The products which are sold to the market are sal leaves, kendu leaves, fuel woods, surplus agricultural products etc. The selling process is not well developed.<sup>4</sup>

**e) Dependency on forest products**

In the study areas villagers livelihoods<sup>5</sup> totally depend on forest and forest based activities. The information about the means of livelihoods was collected during the field survey. Major livelihood options are collecting sal leaf, making sal leaf plates, selling sal leaf to the market, collecting and selling fire woods, livestock farming, agricultural activity, growing homestead vegetables, fishing, collecting kendu leaves etc.

**Table 2: Village wise relative importance of means of livelihoods in the study area**

Sl no	Name on the mauzas	Ranking of alternative livelihood options									
		Collecting sal leaf from forest	Making sal leaf plates	Selling sal leaf to the market	Collection and selling fire woods	Livestock farming	Agricultural activity	Growing homestead vegetables	Fishing	Collecting Kendu leaf	Making rice form paddy
1	Mahulia	1	2	3	5	7	6	8	9	4	10
2	Dumurkata	2	3	4	5	7	1	6	8	10	9
3	Khasjangle Trailokya	1	2	3	5	10	6	9	8	4	7
4	Panjasol	2	1	3	4	6	5	7	10	8	9
5	Bagdubi	6	7	8	9	10	1	3	4	5	2
6	Gopgarh	3	4	5	6	10	1	2	9	8	7
7	Bhagabatchak	2	3	4	1	5	6	7	9	8	10
8	Khasjangle	1	2	3	5	10	6	9	8	4	7

Source: Primary Data

Based on the data collected during the field survey ten main livelihood options are identified and each of them is ranked accordingly. These ranks are made according to the opinion of the respondents. In three villages (Mahulia, Khasjangle Trilokya, Khasjangle) collecting sal leaf from the forest ranked as first.

Based on the initial ranking final ranking is made. In final ranking collecting sal leaf, making sal leaf plates and agricultural activity are ranked in 1st, 2nd and 3<sup>rd</sup> place respectively. Selling sal leaf and collecting forest woods are in 4th and 5th position. Whereas collecting kendu leaf, making rice from paddy and growing homestead vegetables are ranked 6th jointly. Fishing activity and livestock farming are ranked 7th jointly among the various livelihoods.

**Table 3: Final ranking of livelihoods in the study villages**

Sl. no	Livelihoods	Final ranking of livelihoods in the selected villages.	Rank wise result
1	Collecting sal leaf from forest	18	1st
2	Making sal leaf plates	24	2 <sup>nd</sup>
3	Selling sal leaf to the market	33	4 <sup>th</sup>
4	Collection and selling fire woods	40	5 <sup>th</sup>
5	Livestock farming	65	8th
6	Agricultural activity	32	3 <sup>rd</sup>
7	Growing homestead vegetables	51	6 <sup>th</sup>
8	Fishing	65	7 <sup>th</sup>
9	Collecting Kendu leaf	51	6 <sup>th</sup>
10	Making rice from paddy	51	6 <sup>th</sup>

Source: Primary Data

**f) Joint Forest Management (JFM) activity over the study area**

Joint Forest Management (JFM) is a concept of developing partnerships between forest user groups and the Forest Department (FD) on the basis of mutual trust and jointly defined roles and responsibilities with regard to forest protection and development<sup>6</sup>. The policies and objectives of Joint Forest Management are mentioned in the Indian comprehensive National Forest Policy of 1988 and the Joint Forest Management Guidelines of 1990 of the Government of India. Joint Forest Management originated in Arabari Forest Range in Paschim Medinipur in West Bengal near the study area in 1971. The major hardwood of Arabari is sal, a commercially profitable forest product. The forest official, against the suggestions of his co-workers, sought out representatives of eleven local villages and negotiated the terms of a contract with an *ad hoc* Forest Protection Committee. The initial program involved 612 families managing 12.7 square kilometers of forests classified as "degraded". 25 percent of profits from the forests were shared with the villagers. The experiment was successful and was expanded to other parts of the state in 1987 even in the present study area. Joint Forest Management (JFM) is still in force at Arabari forest range.

**g) Proposed work for the forest fringed villages-**

There are some proposed works in the Forest Department in the study area.

➤ **Benefit sharing**

1. Under the Joint Forest Management (JFM) programme, residents of forest-fringe villages of the study area have been provided access to forest produce to meet their **basic needs of fodder, fuel wood and Non-Timber Forest Products (NTFP)**. In lie of this, people are protecting and managing the forests with the Forest Department (FD).
2. In most of the forest villages, **social fencing** is being practiced for forest protection. Regular voluntary patrolling by villagers is a common practice while the number of members in the patrol party varies between two to ten.
3. Fuel wood generated from various silvicultural operations, also provide fuel wood supply in different areas of study villages.
4. People have a right to collect even the **nationalized products like Kendu leaves**, Sal seeds etc but have to deposit these with the agency responsible for procurement and earn a prescribed wage. In the study area people get 25 percent of the net profit from cashew.<sup>7</sup>

➤ **Marketing**

1. There are three types of products available to communities for marketing in Joint Forest Management (JFM) areas (i) immediate products like Non Timber Forest Products (NTFPs), grass, fuel wood available almost immediately or after a time period depending upon the state of degradation of the forest that is being managed jointly, (ii) intermediate products from operations like thinning, other cultural operations, and (iii) final products like timber from felling.
2. Currently forest villages under Joint Forest Management (JFM) members receive 25 percent of the net sale proceeds of the final harvest sold by the Forest Corporation. The share of forest products to communities varies as per provisions in Joint Forest Management (JFM). However, the forest villages under JFM share is rather minimal in case of high revenue earning Non-Timber Forest Products (NTFPs.) like Kendu leaves where communities receive only collection wages. However, State agencies such as Forest Department (FD) do have a major role in the marketing of timber and fuelwood.
3. The considerations for timber marketing in Joint Forest Management (JFM) areas are: involvement of committees in timber marketing and benefit sharing, balancing demand, supply and prices, rationalizing restrictions on the flow of products and role of intermediaries, exploring the established infrastructure of agricultural markets for forest produce marketing etc.
4. Community involvement in Non-Timber Forest Products (NTFPs.) management needs to be ensured in (i) technology for collection, preservation and regeneration; (ii) scientific harvesting and handling; and (iii) planned extraction and management based on a Non-Timber Forest Products (NTFPs.) database.

**Findings**

Major findings of the study are as follows-

1. All the selected villages are having more than 50 present areas under forest. And their livelihoods completely depend on the forest.
2. Sal is the main forest product here. Collecting sal leaf, making sal plates and selling them to the market are the main sources of livelihood.
3. In all the villages the forest is maintained by Forest Protection Committee (F.P.C).
4. At present some work is going on by Forest Department (F.D) such as Jatrofa cultivation in waste land, soil conservation.

5. In the study villages various schemes like Rashtriya Sam Vikas Yojana (RSVY) and development of ecotourism as in Gopigarh have already been implemented.
6. Whole area is poverty stricken and percentage of Schedule Caste and Schedule Tribe population is much higher and literacy rate is also low. In Bhagabatichak and Bagdubi (in average 55 to 60 percent) the percentage of literacy is moderate where as in Khasjangle Trilakhya, Panjasole (less than 40 percent) the percentage is much lower.
7. Economy of the region completely depends on the forest and the scope of agriculture<sup>8</sup> is also very limited here.

### ***Suggestion***

After the detail analysis of the study villages some developmental suggestions are given here.

1. Various developmental works like village **resource development, micro watershed development** can be integrated into Joint Forest Management (JFM) in those villages to improve the socio-economic status of forest-dependant communities in order to reduce pressure on forests.
2. A number of **self-initiated groups**<sup>9</sup> also to be involved in forest management.
3. The powers vested in the Forest Department (FD) like the ability to resolve disputes, disband a badly functioning committee, cancel membership, nominate Non-Governmental Organization (NGOs) for membership etc provide for an unequal relationship between the Forest Department (FD) and the village forest committee. This area should be rectified.
4. Current legal and policy provisions on forests, forestry, revenue land, rights and concessions including cess, grazing issues, customary laws, effect of Panchayati Raj on Joint Forest Management (JFM), Non-Timber Forest Products (NTFP) collection, its use, marketing, etc. need to be reviewed in light of the Joint Forest Management (JFM).
5. **Equity in respect of caste, sex, level of poverty is very much essential in forest village committee.** Making provisions in state resolutions for representation of Scheduled Castes, Scheduled tribes, the landless, women and the marginalized sections, in the general body and management committee is the first step. The Forest Department (FD) and nominate Non-Governmental Organization (NGOs) have a major role to play in solving equity issues in the participation of forest-based activities and benefit sharing programme.
6. Non-Governmental Organization (NGOs) are increasingly getting involved with forest-based activities especially in Joint Forest Management (JFM). They have an important role to play in capacity building, information dissemination, monitoring and evaluation, policy making and as facilitators in the programme implementation.

7. **More and more involvement of women in forest-based activity** is much essential as men can engage themselves in other economic activities.
8. Especially in West Bengal Panchayat involvement is very strong. Sometimes free and fare participation of people is hindered due to political interference. On the other hand, Panchayat assistance sometimes becomes favourable to resolve inter- and intra-village conflicts, leadership issues, and representation in the Management Committee of traditionally marginalized sections of the village etc. Norms governing the functioning of the committees are to be reviewed. Inter-departmental conflicts are to be managed efficiently.
9. Agro-forestry may be introduced in these areas such as cottage industry of sal leaves, mats, sabai rope, handicraft with bamboo, paper from sabai grass<sup>10</sup> etc. may bring economic benefit to the forest fringe dwellers.

## **CONCLUSION**

After the study in detail in the forest fringe villages it can be concluded that the economy of the villages completely depends on the forest. In the villages the forest is maintained by the villagers by Joint Forest Management. In the selected villages various schemes or plans of the Forest Department (F.D) are going on and these are also centres of attraction for the many forest villages throughout the country. But still there are some disputes and problems which are hindering in the way of development of the villages. So in this situation it is very much necessary to implement the suggestive measures, which are discussed above. Various Non-Governmental Organization (NGOs) along with the Government may come forward to mitigate the disputes and for continuing the both village development and forest-based activities.

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