Abstract— The study aims to project the impact of livelihood contributions of forest resources to the tribal community of Jharkhand. The paper contributes towards the change in social life of tribal community in perspective of economic and social aspects. Forest produces providing the supplementary livelihood opportunity for accessing food security during their food insecurity period due to mono-cropping pattern followed in Jharkhand. Traditionally community has been involved in collection and trading of these forest produces for filling their needs but they have been exploited and these primary collectors of the produce do not get fair price as per the quality of the produce. Moreover with the poor marketing infrastructure wherein lack of both availability and access to storage facilities compels them to sell off their produce to the first market contact that is generally the haat or the petty trader. Forests in Jharkhand spreads over an area of 23605 square kilometers, which constitutes about 29.61% of the total area of Jharkhand. Moreover, out of the 23605 square kilometers of forests, 82% of area falls under the protected forests, whereas 17.5% of the lands falls under reserve forests. The study reveals the increase in economic status of the family of collectors with an increase in income of Rs 50000 annum. The occupational shift was observed during the seasons of collection of NTFP for the local people. The involvement percentage of household in collection and trading in the study area was found to be 25% to 100% as collection season varied. Women participation was found to be 80% in marketing of the produces which was breaking the myth of of men domination in decision making for economic status of the family.

Role of agriculture was found to be 30%, forest produces 43%, daily wage labour 13%, business or shop 3%, service sector in primary sector 5%, service in secondary sector 4% and others 2% in lifting up economic condition of the tribal community in the study area.

In dealing with the collection and trading activities women in the tribal community in the study area were found to be more participatory and decisive showing the gender equality within the society.

Keywords—forest economy, NTFP, tribal community, income, women participation, gender equality

I. Introduction

Jharkhand known for the forest area rich in natural resources and its native history as well as various forms of deprivation and exploitation. About 40% of the people live below the poverty line, and about 25% of the child population is observed to be malnourished. Though rich in forest resources there has been lack of natural resource management in the state which have the potential to develop the economy of the state and increase the employment status. The livelihoods among tribal communities in India is complex, dynamic and multidimensional phenomenon, the perception of which varies with geographic location, type of community, age, gender, education, fluctuations in resources, services and infrastructures and social, economic, cultural, ecological and political determinants (Kumar et al., 2009). Agriculture is the only source of income, attain food security, growth, employment and development for the tribal communities in Jharkhand as there is mono-cropping system. In this way they only manage to achieve food security for half of the year for their family as there are small landholdings and rest of the year they migrate out to other cities for daily wage employment for their needs. In this situation forest produces play a vital role in the tribal family where women and children involve in collection and trading activities in the seasonal year of the produces which acts as a mini bank for the family for fulfilling their needs. All the luxury things for the family is completed with the income they generate through trading of forest produces. This also helped the community to show the culture of gender equity as women are empowered to take the decision in trading and utilization of the collected produces of the tribal family.

METHODOLOGY:

The present study was undertaken in Khunti district of Jharkhand. In this study women, farmers, children, youth, landowner and landless farmer, wage labor, members of women SHG were selected for interview. This study was complied with the help of primary data. The primary data were collected using well prepared interview schedule. The schedule included question related to general information about their agriculture practices, financial support mechanism for the family, income cycle, livelihood activities and consumption, credit system and their market transactions. Khunti district comprises of 6 blocks with 86 panchayat and 867 villages. The study was done in 36 villages from 2 selected panchayats in every block.

The sample villages are known to be rich in forest resources and near to the economic point of the produces. These villages have a forest coverage of 23.6% to 52.89% with the main occupation of agriculture and collection of forest produces. The average landholding of the family is 0.23 acre. Majority of the population in the villages are dominated by schedule tribes with few population of SC communities. Development indicators are low on these villages with the parameters of infrastructure, education, medical, social, economic, agriculture, irrigation and transport facilities. Though the majority of the population are observed to be below poverty line but BPL card holders are only 37% which indicates that few are entitled for benefit of government schemes such as PDS, IAY etc.
1. SOCIO-ECONOMIC PROFILE:-

Jharkhand state’s major population is dominated by tribal population whereby having 70% of forest area coverage. Scheduled Tribes (STs) in these areas are indigenous, have their own distinctive culture, geographically isolated and are low in socio-economic conditions. For centuries, the tribal groups have remained outside the realm of the general development process due to their habitation in forests and hilly tracts. After independence, Government of India has scheduled the tribal groups in the Constitution and provided special provisions for their welfare and development as in the case of SCs. There are about 654 ST communities across the States in India and 75 of the STs are most backward and are termed as Primitive Tribal Groups. Most of the tribal areas are hilly, inaccessible undulating plateau lands in the forest areas of the country resulting in the bypassing of general developmental programmes. Due to this, infrastructure and development facilities in tribal areas for education, roads, healthcare, communication, drinking water, sanitation etc. lagged behind compared to other areas which has resulted in further widening the gaps of development between the tribals and the general population for a long time.

Tribals constitute 8.61% of the total population of India, numbering 104.28 million (2011 Census) and cover about 15% of the country’s area while in Jharkhand the population of scheduled tribe was 86,45,042. Of them, 78,68,150 live in rural and 7,76,892 in urban areas. In terms of proportion, scheduled tribe population constitutes 26.2% (rural 31.4% and urban 9.8%). The highest proportion of tribal population has been recorded in Khunti where 73.3% of the total population is scheduled tribe.

In the state Jharkhand sex ratio (number of females per 1,000 males) has improved in the state with the present count at 949 as against 941 in 2001 while in the sample district Khunti it stood at 994 per 1000 male in 2011 compared to 2001 census figure of 992.

The economic life of the tribals is specific in nature. They are generally involved in food gathering and hunting, shifting cultivation, agriculture, artisanship, as pastoralists and cattle herders, folk artists and wage labourers. A large number of tribals in rural areas are still dependent on forests for their livelihood. In the forest based tribal economy provisions for basic necessities like food, fuel, housing material etc. is made from the forest produce.

Table 1. Percentage of forest area by state and percentage of tribal households by distance from the nearest forest

<table>
<thead>
<tr>
<th>States</th>
<th>% of forest area to geographical area</th>
<th>Distance km</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 1</td>
<td>1 to 5 km</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>61.6</td>
<td>15.7</td>
</tr>
<tr>
<td>Assam</td>
<td>9.9</td>
<td>14.1</td>
</tr>
<tr>
<td>Gujarat</td>
<td>9.9</td>
<td>10.8</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>20.8</td>
<td>51.1</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>42.3</td>
<td>57.1</td>
</tr>
<tr>
<td>Manipur</td>
<td>75.6</td>
<td>19.3</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>52.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Mizoram</td>
<td>36.7</td>
<td>13.9</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>29.6</td>
<td>15.4</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>9.3</td>
<td>16.9</td>
</tr>
<tr>
<td>Tripura</td>
<td>60.3</td>
<td>19.8</td>
</tr>
<tr>
<td>All India</td>
<td>23.3</td>
<td>15.7</td>
</tr>
</tbody>
</table>

Note: The table presents data for only those states in India where ST concentration is high.

Source: Statistical Abstract, 2001; Sarvekshana

Historically, the economy of most tribal community was subsistence agriculture or hunting and gathering. It is largely observed that tribal community in India is observed to be residing in all the forest rich areas as large number of tribals in rural areas are still dependent on forests for their livelihood and culturally attached to the nature. In the forest based tribal economy provisions for basic necessities like food, fuel, housing material etc. is made from the forest produce. Table 3 shows that around 16 percent of tribal households live within a distance of one km from a forest. The proportion is higher in the northeastern states. Meghalaya reported the largest proportion of its tribal households living within 1 km of a forest. In almost all the northeastern states over 95 percent of the tribal households reside within 5 km of a forest. In Jharkhand almost 88% of population is near forest areas within the range of 10 km. In most of the states more than 60 percent of the tribal population resides within that distance from the forest. Thus, out of 68 million tribal people, a large percentage of whom live close to forest areas constitute the most disadvantaged section of society based on per Capita...
income, literacy rate, health status and lack of access to basic amenities.

2. INCOME CYCLE OF TRIBAL FAMILY:

Tribal families of the Khunti district are majorly engaged in agricultural activities (mainly cultivation of rice, madwa) and collection of forest produces. Due to very small holding and the very low productivity of the land most households eke out a living by maintaining a diversified pattern of occupations; no single activity provides sufficient resources to entirely ensure their livelihood. Women’s work is critical for the survival of tribal households both in terms of provisioning food and income as well as in the management of resources (Malik et al. 2010). Distant migration among the men and youth are most prevalent but local wage-earning is practiced by the staying families in the area. Women and children are mainly involved in collection and trading of forest produces in the season. They are mainly involved in collection of mahua, char, kendu leaves, ber, kusum and Karanj seeds, tamarind etc. In the study it was found that family income contribution is 37% from agriculture, 35% from collection and trading of forest produces, 3% from service, 25% from daily wage employment. The contribution of 37% from collection and trading of forest produces has the ability and potential to cover rest of the 28% percent of income sources coming from different sources due to lack of knowledge in correct market valuation of the produces, which could be supported by better institutional and infrastructure support for natural resource management.

3. INCOME OBTAINED FROM NTFPs:

Non-timber forest produce is the next major alternative source of income after agriculture because of availability of forest produces at large scale. The income generated from NTFP was Rs-50000 per annum with an average income per household. As the forest produces season varies tribal families engagement varies accordingly as NTFP plays a critical role in providing sustained sources of income for the tribal communities but the awareness regarding real market value of the produce was low. This lead to the exploitation and under-paid for the quality produces collected. Women participation from families is 100% in the collection of NTFPs. In the study it was found that trading of the forest produces is majorly done by the women as they are the main collectors. Average collection from the family is 12 kg in a week for mahua, 12 kgs/week for char, 15 kg/week for tamarind, 13 kg/week for kendu leaves and 9 kgs/week for kusum and aranj seeds. Lac cultivation is mainly done on Kusum and ber trees which produces around 50-60 kgs of lac and average income from lac is around 60000 Rs/annum. The local people were found less aware about the market value of many produce, untrained on value addition and processing of NTFPs and therefore not able to generate significant income from NTFP.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Income Sharing INR(indian rupees)</th>
<th>Income Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>9784</td>
<td>47.69</td>
</tr>
<tr>
<td>Forest Produces</td>
<td>5432</td>
<td>26.48</td>
</tr>
<tr>
<td>Small scale enterprise</td>
<td>942</td>
<td>4.59</td>
</tr>
<tr>
<td>Labour Work</td>
<td>1545</td>
<td>7.53</td>
</tr>
<tr>
<td>Livestock</td>
<td>578</td>
<td>2.82</td>
</tr>
<tr>
<td>Service</td>
<td>1247</td>
<td>6.08</td>
</tr>
<tr>
<td>Others</td>
<td>989</td>
<td>4.82</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20517</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data, Khunti district

On interaction with the several SHGs (Shelf Help Groups) and Farmers group in all the sample villages in the Khunti district fairly represents the socio-economic status of the tribal villages and of the state as well as more than 80% of the households were engaged in NTFP collection and managed their livelihood by marketing and consumption of NTFPs supplemented with agriculture produces.

It is quite evident from the data that tribal community in Khunti district is having its two main income sources one is Agriculture and second dependency is on forest produces. In case of interior block, 60.32 per cent of the total employment was contributed by NTFPs followed by 18.76 per cent by agriculture, 17.71 percent by wage employment (labour work) and 7.21 per cent through allied activities. In periphery block, it was 52.5 per cent by NTFPs followed by wage employment (24.34%), agriculture (17.42%), allied activities (4.14%) and least from other sources (0.60%).
At pooled level, NTFPs contribution to household employment was 56.41 per cent, followed by that from wage employment (21.02%), agriculture (17.48%), allied activities (5.67%) and other sources (0.29%). (Source: Village level survey from sample villages)

4. ROLE OF WOMEN:

For the accelerated socio-economic development of any community, the active participation of women is essential (Awais et al. 2009). Women participation was found to be 100% in collection and trading of the forest produces. It was observed that women were independent and decisive on the matter of trading the produces. Tribal women follow occupations based on natural resources, oriented towards the empowerment of tribals, particularly women, have improved their socioeconomic conditions and status. As women were responsible for purchasing food items and hence it was found that women's used these forest produces as their debit card to cash income for purchasing of goods and items. This proved the gender equity in the tribal community.

5. NTFP AND FOOD SECURITY:

Agriculture is the main occupation for the tribal family but due to small landholding and lack technical know how productivity is low and food security obtained from this is only three to four months. For rest of the time mail members migrate for daily wage labour work for attaining source of income for food for the family. In this case women are responsible for coping up with food shortage for the family. And this brings the family including women and children's engagement in collection of forest produces. Although this also puts negative impact on attendance of the children's in the schools during the collection season. Women sell these collected forest products in local haats where they exchange it with other goods and debit cash for the produce and purchase food items for the family. The study reveals that these forest produces increase the food security from three-four months to 10 months as whole throughout the year different forest produces have varied seasonal time and generally in summer time which is lean agricultural season.

Gap analysis:

The NTFP sector has remained underdeveloped in comparison to its vast potential chiefly because of some of the serious gaps that have been existing since long, as under:

• Gaps at policy level: There is no national clarity at policy level on NTFP management. Stake in NTFP sector has been a major issue of confrontation between the Forest Department and the local communities, particularly after PESA and FRA. Grey areas exist even in legal provisions, and access/transit regime is incompatible across the country. For example, bamboo as per FRA is a minor forest produce; but Indian Forest Act, 1927 treats it at par with timber and the Forest Department is not ready to lose its stake in bamboo. The then Minister for Environment & Forest Mr.Ramesh wrote letters to state chief ministers to recognize bamboo as an MFP and transfer ownership of the same to local communities accordingly in deserving areas; but the state forest departments are hardly willing to accept that. Monopoly rights of states are legally questionable though they still continue with that.

• Gaps at production level: While conservation and regeneration of NTFP species did not receive adequate attention in the timber-centric forest management system, unsustainable harvesting practices along with diversion of forest land for non-forest use caused substantial degradation of the resource base. Of late medicinal plants received some special attention which helped in promoting their commercial cultivation, but not the NTFPs as a whole.

• Gaps at institutional level: There is no central organization to coordinate NTFP-related matters, so there is an overlapping of concerned schemes/programmes and institutional activities. Further, procurement agencies at state- and central level lack adequate capacity and skill to successfully manage the trade affairs like private traders; and local institutions of primary collectors are often confronted with limited capacity versus uncertain market.

• Gaps at management level: NTFP management protocols are hardly available/developed. Making working schemes for bamboo is easy but not for other NTFPs because they are not so widespread/contiguous. Orissa and Kerala adopted some NTFP management guidelines, but overall achievement of the same seems to be poor. Moreover, there is a dilemma regarding ownership of communities, and even community forestry hasn’t yet evolved to take up this challenge independently and effectively.

• Gaps at market level: The NTFP market is mostly unorganized in nature (except for few items like tendu patta or bamboo), and uncertainty in market demand makes it difficult to survive with one or two items only. Lack of value addition (like, cleaning and grading) at primary level causes the primary supplier lose a substantial part of the possible income. Few items are almost exclusively dependent on export market due to unfavourable domestic policy (as in case of sal seed butter which can be used in Europe in chocolate making but not in India). Procurement agencies lack market intelligence to trade successfully. Monopoly rights save them, but such rights are legally contradictory in PESA and FRA areas whereas there is also an understanding that a kind of centralized and government procurement & marketing system is at present more preferable than total deregulation because the latter might ultimately go against the interest of the primary collectors (like, in case of tendu patta).

6. ECONOMIC EMPOWERMENT THOROUGH NTFP:

The poorest lack adequate income sources and economic buffers who are completely dependent on agriculture but these seasonal forest produces gives a buffer for the family in maintain stable economic status, local haats which play an important role in the rural economy and are the nerve centres of the economic, social and cultural life of tribal. The haats reflect the demand pattern of the local area. NTFP Collectors and majorly tribal community depend on the haats not only for selling of the produce, but also for procurement of items needed in their daily life. It is the first market contact for
villagers and is the easiest means of selling local products and exchanging rural surplus. This increases the purchasing power of the tribal family by 20%. It also helps the family to achieve growth in the development indicators such as infrastructure (building house), purchasing vehicle, education (ability to get high education which was impossible for them to afford in general condition of surviving on agriculture alone).

CONCLUSION:

The study lead to conclude that the forest plays a vital role in tribal life traditionally, economically and socially. The livelihood opportunities based on forest engages the tribal community to primary sector and direct paid employment. This provides the economic support to the family in vulnerable period. The livelihoods promotion among tribal people needs a shift of paradigm focusing on forest resources to keep pace with current development and future challenges in the area. There is vast opportunity for NTFP sector to generate livelihood opportunities specifically for the tribal population as they are attached to it traditionally and culture. Many more challenges get associated with the primary producers which prevents them from getting better price for their produce. It is in this context that introduction of aggregation and local value addition measures can help producers to get better prices. Similarly either by supporting primary collector to have access to infrastructure or by creating need marketing infrastructure producers can be supported to fulfill gap and gain access to remunerative markets (NTFP survey report, 2006). Margins, column widths, line spacing, and type styles are built-in; examples of the type styles are provided throughout this document and are identified in italic type, within parentheses, following the example. Some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

Acknowledgment (Heading 5)

I sincerely acknowledge the cooperation and help extended by the gram pradhans, Muhikayas, PRI members, local leaders, Government officials, NGO workers and tribal villagers in carrying out the research work in the sample villages under Khunti district in Jharkhand.

References