

LIVELIHOOD PROMOTION

through Non Timber Forest Produce (NTFP)
in WEST SINGHBHUM



An Initiative by

Jharkhand State Livelihood Promotion Society



Context

Jharkhand's poverty ratio was 49% as against the national average of 26% in 2000 and it was highest among all states at 49%. Of the 49% rural poor, 75% live either inside or on the periphery of the forests. Their survival depends on the forest's resources as it is their main source of livelihood. Jharkhand has 29% forest area as against 23% all India average. Jharkhand accounts for 3.4% of the total forest cover of the country and ranks 10th among all states. Forest contributes about 1.3% of the State's GSDP (2005-06) which is less than half of what used to be in 2001-02.

Non Timber Forest Produce (NTFPs) play an important role in the livelihood support of tribal and forest dwellers in terms of subsistence and income generation. They depend on it for food, fodder, medicines, entertainment, income and for their cultural practices. The dependence is largely on produce like kendu leaf, mahua (flower and seed), char, tamarind, sal leaf and siali leaf etc. Despite all this, the state has not paid much attention on the development and value addition of these products and most of these products are wasted for lack of post harvesting technology in cleaning, drying, packing, storage and processing. MART a partner agency of JSLPS conducted a baseline survey on NTFP based livelihood system followed by handholding village community in carrying out various interventions. The assignment was piloted in 2 blocks (goelkera and bandhagaon) of West Singhbhum district.

In the district of West Singhbhum, tribal are predominantly dependent on NTFPs as a source of income and more importantly as a coping mechanism. Villagers or community in the forest fringe villages have started these activities because they possess the traditional skill base, have access to the resource base, have access to finance albeit from the moneylenders etc. In addition government policies have also become primary collector or producer friendly with the passage of time paving the path for villagers to take up more economic activities. In this situation a common issue is of lack of marketing support, which renders the primary producers helpless in this competitive world and is further compounded by their vulnerability to exploitation due to various factors such as small scale of operation, lack of capital, unavailability of facilities (stoage), lack of information on marketing etc.

The selling mechanism of almost all the products is predominantly individual oriented, which has helped traders (small as well as big) to gain in a big way. A closer look the value chain of any of produce any of these traders profile reveals that they operate on similar margin as a primary producer and gains simply because of the scale of operation. A rupee margin per kg is around Rs. 1500 (say) for the primary collector but becomes 15,000 for the small trader who purchases from 10 such primary collectors and further becomes Rs. 1,50,000 for the big trader to whom such 10 small trader sell. Hence, the equation magnifies with the increase in the trade volume and though the margin sharing is equitable the absolute amount is what holds key at the trader level for they get the critical mass to deal in essential inputs required by primary collectors.

Profile of Major NTFPs

In 100 villages of Bandgaon and Goelkera blocks of West Singhbhum following profile of major NTFPs emerged from the study to map potential NTFP. It was clear that the given the quantum of NTFP collected, the potential to move up along the value chain was possible. Various interventions both for the raw produce and value added activities were planned.

Name of NTFP	Harvesting period (Months)	# of hhs involved in collection	# of hhs involved in selling	Period of collection in days	Duration of collection (hours/day)	Total amount Collected in qt.	Amount consumed in qt.	Marketed surplus in qt.
Mahua Flower	Mar-April	3174	3174	25-30	4-8	6116	924	5192
Mahua Seed	June-July	2945	1510	15-25	3-5	1356.7	115.7	1241
Char Seed	Apr-May	2800	2800	10-20	3-6	205	0	205
Tamarind	Jan last-Feb	340	340	1-4	3-6	961	134.3	826.7
Sal Leaf	May-Feb	1523	117	300	2-4	579	423	156
Siali Leaf	June-Dec	290	85	240	2-3	150	25	125



Livelihood Model

The Endeavour was to build a livelihood model around NTFP with a view to plug the existing gaps across the value chain stages of the produce.

Components of Livelihood Model

1. Capacity Building through awareness and concept sharing
2. Installation of basic facilities and infrastructure
3. Establishing Market Information System
4. Developing Remunerative Market Linkages

Major Initiatives in the Model

The study brought out that village community has inadequate information about important aspects of enterprise promotion and lacks initiative to make markets work for them. Their exposure to market environment is limited to the nearest market, generally local bazaar, with negligible idea about more remunerative markets both within and outside the district and state boundaries. The ownership and marketing of the NTFPs is individualistic and because of small surpluses, raw produce is sold without any value addition. Villagers even, do not gain from aggregation and collective marketing of various raw produce. Moreover, it is generally the raw produce which is being sold with hardly any value addition of the myriads of non timber forest produce. The need for interventions both at the raw produce level and introducing processing of certain produce got manifested in discussion with the community and market



Initiatives under the Livelihood Model for West Singhbhum



players' level. The range of interventions in augmenting price and income at community level were decided as following. All the above interventions work in synergy under a comprehensive Livelihood Model towards strengthening NTFP based livelihoods to create the desired impact of increasing price and income.

Steps taken by JSLPS for model demonstration of NTFP based livelihood promotion include

Appropriate Marketing Strategy for collectivization

It is with this backdrop that proper collective action at the primary producer and collector level holds promise of ensuring better prices by reducing dependence (hence exploitation) and ensures development of a system to sustain the initiative. This provides continuous benefits to the producer. Many best practices across the subcontinent suggest that a process intervention is required to develop a win-win system.

There has been one off/ rare instance at the community level wherein the groups had aggregated produce and sold at higher prices, it could not be sustained because of lack of handholding by the facilitating agency and dedicated leadership at the community level. It would be also be important to look into developing associate of resource persons from among the community who can provide support in developing remunerative market linkages.

The primary collector sells his minimum marketed surplus to the local trader for getting immediate cash. This in fact is the root of all exploitations ranging from price-cutting, faulty weighing etc. In the present context to check his sporadic individual selling and to accrue better prices, collective action is imperative and the only way out to extend reach to remunerative markets, which require minimum scale of volume. Without collective action plight of primary collector would increase since the pressure on forest and competition is bound to increase.

Step by Step Plan for initiating Collective Marketing

- Community Mobilisation
- Working Capital for undertaking Collective Marketing
- Drying Platform
- Black Polythene
- Weighing Scales
- Coin Box Phone
- Market Information System

Community Mobilisation

A local social mobilisation agency ICFG also a partner of JSLPS, supported in formation/strengthening of 88 SHGs

Working capital for undertaking collective marketing

Working Capital Requirement in undertaking Collective Marketing: Around Rs. 2 Lakh of working capital required for trading 100 q of Mahua, 100q of Tamarind, 50 q of mahua seed.

Drying Infrastructure (Drying platform)

NTF produce is sold mainly individually and is a fact middle men who come to village to buy produce (both agri and NTF), exploits the villagers on both quality as well as quantity aspects. To get remunerative markets is a distant reality for the villagers. Hence, there is a need in village to have a drying platform to fetch better prices for a range of agri and NTF produce and break away from exploitation.

Raw Material required for drying platform

Slate (kadappa) stone is required to construct a drying platform. The stone has a unique characteristic of drying the produce in almost half the time than the time taken in conventional drying techniques employed by villagers. It is available at Ranchi, Mahasamund and Arang in Chattisgarh, where around 10-15 traders are engaged in the supply of the stone.

Utility of Drying Platform

It can be used to dry various agri produce such as paddy, minor millets, pulses, oilseeds etc. along with NTFP such as mahua flower, mahua seed, char seed etc. This implies that community can use it for around 6-7 months of a year. Moreover, after proper drying community can store the produce for a longer period (without fear of loss due to rotting etc.) and gain by selling from the price fluctuations.

Estimated Cost for Construction of Drying Platform

The total estimated cost of constructing a 40'x40' drying platform comes around Rs. 75,000 including the barbed wire fencing around the platform (to minimize wear and tear of the platform and check encroachment by animals).

Steps for Establishing Drying Platform

- Assessing community's need for drying platform
- Common consent of villagers
- Land identification for construction of drying platform
- Approval from authority for construction
- Finalization of size and layout of the platform
- Land work and seeking Sramadan (Community's own labour) for carrying out the preparatory work along with help in construction
- Checking availability of slate stone and making arrangements towards its purchase
- Arranging of a skilled mason for ensuring good construction
- Developing appropriate mechanism towards community level ownership and maintenance
- Planning for paraphernalia (filter, and cart etc.) to ensure quality, and in-village transportation etc.
- Black polythene on (usually made of concrete) floor can also be used to dry produce. In addition, low-cost raised structure of soil can be made, which when covered with black polythene can effectively serve the purpose of drying the produce.



Black Polythene

Black polythene is required to provide cover to the aggregated produce in case market linkage gets delayed. It would act as a preventive measure to ensure that the produce does not get spoiled due to exposure to rains particularly while lifting of produce in the market linkage event. It is found that cost of black polythene is around Rs. 180 (20x20 ft), Rs. 360 (20x40 ft), Rs. 720 (40x40 ft).

Weighing Scales

Usually, there is no clarity on weight and measures among community & they get cheated by the petty traders either at haat or at village level. Some time they also sell siali leaves without knowing the quantity. Villages do not have the basic infrastructure to know about the quantity & this makes them completely dependent on the traders. Hence introducing weighing scales was a viable option to educate villagers and stop exploitation. It was observed Ranchi Upper Bazar accepts packets of equal weights only and rejects packets of variable weights. Hence, weighing scale at village level was the appropriate initiative introduced for collective marketing to ensure equal weights of packets.

Market Information System

1) Coin Box Operated Pay Phone:

Many Remote villages are not having basic land line and / or out of coverage of cell phone network. Hence they are debarred from getting the benefit of telephone based information. Coin box operated phone are easy to operate and were established in remotest place for sharing the market information and other village urgent need to communicate with outsiders.

2) Marketing Information Board:

A Marketing Board is placed at the village level with an intention of providing market rate of major NTF produce in different near by markets. The coin box is a means of accessing market information by the marketing cadre for updating the market information among community. Each Marketing Board costs around Rs. 3000.

Key Learning / Results

- Phones installed in 5 villages namely Godaduba, Buruhundur, Sarbil, Arahasa and Rengalbeda of Goelkera block. 5 Coin box phones are now functioning and forest dwellers have got opportunity to talk from forest area to anywhere in India by inserting one rupee coin only. The Coin box phone is already used by NTFP collectors and marketing cadre to regularly interact with traders of Tata, Ranchi, Chakradharpur, Bisra, Jaraikela.
- Rain Proof polythene sheets are used to protect products from rain and managed by SHGs.
- Villagers are generally cheated on weighing at the hands of intermediaries and local traders. Moreover, with aggregation and collective marketing being started by SHGs, manual weighing scales and electronic weighing machines become a utility facility allowing villagers to have control over their produce and plug the leakages due to fraudulent weighing practices.
- Both electrical and manual weighing scales were used at PDS distribution points of SHGs, Near Goelkera Buruhundur Haat on “Weekly Haat Day’s, Friday”. Recently, weighing scales are also used to measure the weights of oil seeds, powdered oil seeds, quantity of oil extracted and oil cake etc. It is also being used for general purpose of weighing of Agricultural, NTFPs, Grocery item etc.

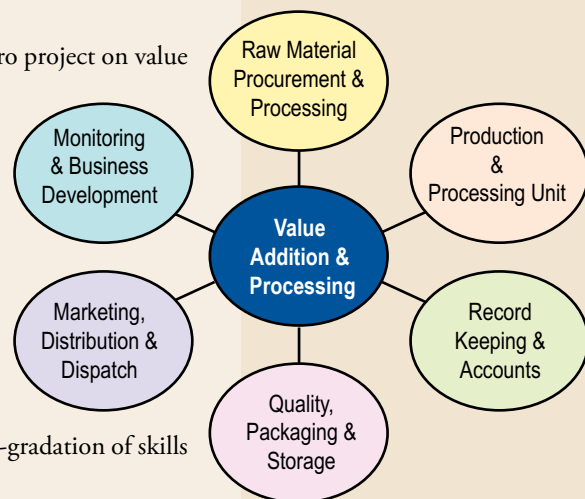


Value addition for NTFP

The following are strategic points need to be considered for setting up the micro project on value addition of NTFP by a SHG.

Strategic points:

- Mature SHGs should be sensitized on the process
- Prospective SHGs to be linked with the concept from the beginning
- Focus on collaboration with local and distant markets
- Linkages with organized buyers
- Building awareness regarding the dynamics of the economic activity
- Involving local youth in supporting the unit for marketing of the product
- Initial handholding at the SHG level is necessary for scripting success
- Arranging basic, advanced and refresher training at regular intervals for up-gradation of skills and being contemporary in market
- Developing linkages with Business Development Services (BDS) providers
- Secondary institutions should be promoted after SHGs are able to progress satisfactorily



Some Initiatives

Oil Expeller unit

Improved oil expellers were installed in 5 villages of Goelkera and Bandgaon block.

Features of Oil extraction Process

- The Processing capacity of manual oil expeller is 20 Kg/ hour
- 2 Quintal Oil seeds can be processed per 10 working hours/day
- In 1 hour, 10 Kg seeds powder can be easily boiled by steam in 1 set of utensil having capacity to contain 10 kg seed powder
- 2 sets of Utensil needed for boiling 2 Quintal of oil seeds powder by steam application from lower container containing water towards upper container having perforated/ holes at lower portions
- (20-35)% of oil can be extracted during once processing of oil seeds powder (Applied by steam)

Assumptions

- Unit owner can put a service charge of Re. 0.25 p per kg and retain the oil cake for further sales
- Calculation is based on the assumption that 35 quintals (407 make truck) oilcakes would be sold in the season
- Unit will get 1.2 kg of oil and 2.8 kg of oil cake from 4 kg of seed i.e. the unit will have to expel 50q of seeds to get 35 q of oil cakes
- Unit expels 1.5 quintals of seed per day and hence to expel 5p quintals of seeds would require around 34 days. It is assumed that depending on the production of mahua seeds the unit may function for 45-50 days (season)
- The machine can run through out the day depending on the quantity of seeds available at the unit
- Cake will be sold to haat level or town level trader @ Rs. 3 per kg
- 2 labour to run the machine would be required, paid salary @ Rs. 1500 for the season

Income and Expenditure analysis

Expenditure	Machine with Wooden Frame (Rs.)	Revenue	Amount in Rs.
Cost of machine	5200	Revenue from service charge on expelling 50 q of seeds	1250
Transport and installation	1000	Sales of cake	10500
Maintenance during the season	500	Total	11750
Labour cost	3000	Profits	2500
Sub Total	9700	ROI (machine with wooden frame)	23.5%



Recommendation for Up Scaling

- Manual Oil expeller can be installed in a cluster of villages where oilseeds are available.
- Agricultural oilseed products like mustard seed, groundnut etc can also be used.
- Minimum 2 machines installation at a single place shall provide better result as one machine shall be used for non edible oil seeds like karanj, neem, kusum while the other oil expeller can be used for all other edible oil seeds like groundnut, mustard seed, sunflower etc.
- Cluster based approach to oil expeller shall be helpful in collective marketing of oil seeds, oil cake and oil.

Sal Leaf Plate and Cup making

The Unit of Sal leaf Plate and Cup was installed at Nayak Tola, Godaduba, Goelkera. The unit consists of 4 Sal leaf Plate and 4 Sal Leaf Cup machines. Mr. Sanjay Jaiswal, manufacturer and supplier of electrical Sal plate and cup machines, Betonati, Mayurbhanj, Orissa imparted the technical training to the SHG members of Nayak tola, Godaduba, Goelkera. 5 female operators and 2 male operators were trained on process of “Plate and Cup Die Repairing and fitting with edge sharpening”. Out of 15 trainees, 7 trainees were able to practically demonstrate the repairing of die (plate & cup) along with edge sharpening and electrical fitting of both the machines. During the training period, trainees made ready 6 machines and after training fitted another 2 machines. Maa Durga & Maa Pauri SHG members were trained regarding “Production of Sal Leaf Plate and Cup “ and “Operators training on Machines die repairing cum electrical fitting” and Specialist trainer from Betonati in Mayurbhanj, Orissa imparted training at Godaduba unit on “Production of Quality Leaf Plate and Cup Production based on as per market demand”.

Assumptions

1. A bundle of 100 stitched leaves (stick stitched) costs Rs. 10 when incurred from locals sources.
2. Cost of pasting plastic is Rs 80/kg and 1 kg of plastic can paste 8000 stitched leaves i.e. 4000 plates.
3. Cost of packing plastic is Rs 40/kg and 1 kg of plastic can pack 5000 plates.
4. Electricity and water charges for manufacturing 50 plates is assumed to be Re. 1/-
5. Labour charges for manufacturing 5000 plates is Rs 150/-
6. Cost of transporting and marketing in local haats and markets is Rs 50 for 5000 plates.
7. Miscellaneous costs like stationery, wastage etc has been assumed to be Rs 30 for 5000 plates.
8. Production capacity per hour per machine is 500 plates per hour and the machine is functional for 5 hours everyday.
9. The unit is functional for 20 days a month producing 50,000 plates per month.
10. Selling price of packed bundles of 100 plates is Rs 60 each.
11. Depreciation of fixed costs and machinery is 10% per annum.



Fixed Cost

The fixed costs for establishing the unit is Rs. 15,000 which includes Leaf plate making machine, dies and other service equipments.

Output and profit analysis for 1 machine unit:

The following table showcases the entire output and profit analysis of the unit

Particulars	Amount (Rs)
Manufacturing Cost of 50 plates	14
Selling price of 50 plates in local haat	30
Gross profit per 50 plates	16
Gross profit per 50,000 plates (1 month's production)	16,000
Gross annual profit from the unit	1,92,000
Depreciation of machinery and fixed costs per annum	1450
Net profit per annum	1,90,550

Key Learning

Training of Plate and Cup Die Repairing and fitting with edge sharpening is equally important and need to be given to the beneficiary for maintenance of the maintenance. Cluster approach for creating quality products in scale is also required to be done for continuous market supply and getting benefit by SHG.

Promoting Business and Marketing Cadre

The number of petty traders increases during post harvesting season and operate either as commission agents of big traders or directly collect and sell the produce to the big traders. The biggest losers in the process are the producers and the collectors who have to give in to the whims and fancies of the traders.

One of the major tactics these traders employ is of giving advances to the prospective producers and collectors there by forcing them to get into tied sales.

It is in this context a business promotion and marketing cadre if groomed wherein he/she is responsible for optimizing the prices at the primary producer or collector level and become a local resource person on marketing. This cadre operates on a commission basis or on a mutually agreed system developed in village community. Since collective action at the primary stakeholder level is imminent, investment towards creating a trader layer at the community level promises of a better endowed system.



Challenges /Risks and mitigating mechanism

It may be that after some time this cadre with all good intentions might start functioning as a mainstream trader and become

exploitative by nature. It is obvious that this trader will be selling to the big traders and there exist a possibility of his replacing the bigger trader in the village.

Hence, it needs to be clearly defined that who could be part of this cadre and they should be appointed in a participatory way at the village level. Moreover, in wake of collective action by the CBOs (SHGs, Mahila Samiti etc.) most enterprising members (subject to his/her interest) followed by educated and unemployed youth (again subject to the interest) should be preferred. A win-win operational mechanism has to be built in to minimize the above-mentioned possibility.

This cadre gradually become the business counselor for the entire village and cluster. She/He is capacitated to assist the SHG and farmers to develop business plans and help them in linkage with market and service providers. Moreover experience of SHGs who have successfully dealt with big trader needs to be understood by the community before developing an operational plan.

Step by step plan to promote Marketing Cadre

1. Identification of educated, unemployed youth, SHG leaders etc. interested in taking up trading activity at the village level.
The selection is done in a participatory manner with the involvement of villagers
2. Greater understanding of the local economy and dynamics of market via
 - a. Exposure to local markets particularly haats to understand the market mechanism
 - b. Orientation on business and marketing
3. Interaction with bulk buyers operating in distant markets
4. Interaction with institutional buyers to forge appropriate linkages
5. Capacity building on issues related to
 - a. Networking with producers of the village, SHGs and NTFP collectors
 - b. Finalizing terms and conditions for the dealing with villagers
 - c. Market identification
 - d. Negotiation with right buyers and business terms and condition
 - e. Market linkage
 - f. Accessing market information
 - g. Logistic management related to procurement and marketing
 - h. Profit and loss, breakeven analysis, economy of scale etc.



Key learning:

Marketing cadre are center to development of NTFP cluster for collective marketing. If they are properly groomed and trained the NTFP collectors can get many benefit other than higher price realization for their NTFP.



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