
Plates of Hope

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Abstract

This case study is about sensing a new market for a traditional product of leaf plates and appropriately modifying the product to serve the needs of urban consumers and in the process, enhancing returns to the forest dwellers. The introduction and adoption of technology especially by adivasi women was done in collaboration with Govt. agencies and a private enterprise. The case also depicts the challenges of a dwindling raw material base and how they came in the way of this livelihood intervention.

Background

Forest dwellers, across the country, especially adivasis, collect and sell a range of forest produces to earn a living. Forest produces command not only a large share of but also compose a critical element in their livelihood basket, more so because of the timing and cash yielding nature of a large number of forest produces. The income from forest produces goes as investment in agriculture, serves as risk hedging instrument in crop loss years, meets requirements of health emergencies and also major consumption expenditures like clothes and festivals. However, the income for the primary collectors/processors in this transaction has always been very low. This is often attributed to an unorganized market and little access of the primary collectors to the market. An unusually longer value chain makes the situation more difficult both for the primary producers and an intending livelihood promoting organization (LPO). Most of the forest produces are either sold raw or in semi-processed form. Hence, livelihood promotion interventions often take the route of producer end value addition to maximize income for the forest dwellers. But value addition often requires better physical infrastructure as well as introduction and adoption of technology, both of which elements are missing in our forested areas.

Plate and cup making from sal and siali leaves is a household industry in many districts of Orissa, an eastern state of India, owing to the availability of raw materials and skills. The state with eight million adivasis and 48.4 lakh ha of forests² is the laboratory and hub of many forest based occupations and livelihoods. The “*leaf plates and cups*” industry is now at least a thousand crore³ industry in Orissa. From twig stitched plates to machine stitched ones, from flats to pressed plates to pressed buffets, the range is immense and caters to different market segments. A number of organizations, both governmental and non-governmental, have been working on different aspects of plate making like product design, technology and market so as to enhance returns to the primary producers.

Orissa Rural Marketing Society (ORMAS) is a Govt. of Orissa entity under the Panchayati Raj Department, which is responsible for marketing rural produces and assisting rural producers in marketing their produces. It has presence in every district in the form of District Supply and Marketing Society (DSMS), headed by a Chief Executive. It participates in trade fairs and exhibitions around the country with its range of rural produces. In one such event it came in contact with Annapurna Cottage Industries, Hyderabad, which evinced interest in its plates made of *siali* leaf. But the latter wanted the product to be modified according to the needs of elite urban markets. It wanted the leaves to be stressed to a cardboard and stitched. It also promised to train some people who would subsequently serve as master trainers for achieving the volume. With a buyer in hand and that too one promising to train some people, ORMAS wanted the idea to be grounded.

Nayagarh district, especially Daspalla block, is known as a major *siali* leaf producing area of the state. One of the first units called Advance Leaf Plate Making Unit came up in Buguda Colony of Daspalla in August 1999. ORMAS managed it for around two years. But it was becoming increasingly difficult for ORMAS to manage the whole range of tasks including training, collection, storage, quality control, transport, interface with buyers, negotiating infrastructural bottlenecks like electricity, etc. Subsequently, the units in other places closed down.

Subrat Mohanty, a 1990 batch management graduate of Xavier Institute of Management, Bhubaneswar, was then with ORMAS and posted at Dhenkanal. He had earlier done stints with Girijan Cooperative Corporation (GCC), Andhra Pradesh, and Orissa Rural and Urban Producers' Association. Realizing that many initiatives aimed at improving the lot of rural producers lose sheen after the initial bout of flash because of managerial weaknesses, he decided to take it up as a challenge. He was closely associated with operationalising this idea of advanced leaf plates as an instrument to improve the income of adivasis within ORMAS. Moreover, he was convinced that the idea made business sense. He formed and registered an organization called Manav Vikas in 2001. He quit ORMAS and offered to manage the Daspalla unit. Since May 2002 the Daspalla unit is being managed by Manav Vikas.

Objectives

The objectives of the study are to

- understand the key elements and strategies in a market driven intervention in the forest produce sub sector
- probe the enabling factors, demand, industry and institutional conditions present for the intervention, especially the facilitating policy environment created by the enactment of PESA Act
- understand the effects on the livelihoods of the intended beneficiaries
- understand the impact of such interventions on the long term livelihood security of forest dwellers

Methodology

The study objectives required collection of both primary and secondary data and their analysis against the broad parameters laid down by The Livelihood School in its protocol for development of case studies. Primary data were collected through the instrument of semi structured interviews with the women engaged in plate making both in Buguda Colony, Daspalla and Bhubaneswar processing units. Three out of 25 women engaged in leaf plate stitching in Buguda Colony unit were interviewed. One master trainer, a woman who had seen the early days of the intervention, was also interviewed. Similarly three women including one scheduled caste woman were interviewed out of 26 engaged in the Bhubaneswar unit. The universe for the support staff like supervisor, mechanic, store keeper comprised six (6) persons, three each in Buguda Colony and Bhubaneswar. The supervisor in charge of the Buguda Colony processing unit and the mechanic in the Bhubaneswar unit were interviewed based on a checklist. Extensive interactions with the Chief Executive of Manav Vikas were held over two days to map the evolution of the livelihood intervention, understand its various dimensions and the implications for scalability and replication.

A thorough scanning of available literature on forest based livelihood interventions, leaf plate making industry and the economics of this industry preceded primary data collection. The Livelihood Framework⁴ (a modified version of Porter's Diamond) used by The Livelihood School was used for analyzing and drawing conclusions.

Data collection was done in two phases in January and August '08. The author has, by design, limited himself to the study of the Manav Vikas intervention with the forest dwellers engaged in siali leaf plate making in Daspalla area of Nayagarh.

The land, the livelihood and the leaf

Daspalla block of Nayagarh district in Orissa has two distinct parts, namely the hills and the valleys. The valley part, which has well drained soils and is irrigated by the Kuanria irrigation project, is densely populated with agriculture being the major livelihood activity. The hills are the land of the *adivasis* who depend on forests for livelihood. Upland paddy, *kulthi* and *kandula* (a local variety of *arhar*), black gram, rape seed and mustard are the main crops. Wage employment programmes of the government are the third major source of livelihood for the people. Out of a population of around one lakh, 30 per cent are cultivators, 32 per cent agricultural labourers, 11 per cent workers in household industry and 27 per cent are engaged in other occupations.⁵ Although Daspalla is the least urbanized tehsil with no notified urban area or census township, its 11.15 per cent population engaged in household industry is the highest among the four tehsils of the district and is much above the district average of 7 per cent. With the exception of the mother habitation

in a gram panchayat, the other habitations are small and often have five to ten households. The cost of accessing and delivering various social and economic services is often prohibitive. The distance of panchayat headquarters from the block headquarter varies from 30 to 60 km. None of the *adivasi* dominated panchayats have a haat. They either depend on Daspalla at one end or Chakapad in Kandhamal district on the other. The Khordha Bolangir National Highway passes through this area and serves as the major outlet to the outside world. Apart from this, physical infrastructure like roads and electricity are poorly developed, especially in the mal (forest- adivasi) region. Kondhs are the major tribe and are further sub divided into malua (more connected to forests) and desiya (more exposed to agriculture) kondhs.

The hills of Daspalla are part of the Eastern Ghats and have rich forest resources. The vegetation is of the dry deciduous type with sal (*Shorea robusta*), mahua (*Madhuca indica*), tendu (*Diosporos melanoxylon*), bamboo and *siali* as the major species. The other species are *arjuna* (*Terminalia arjuna*), *asana*, *amla* (*Embilica officinalis*), *harida*, *bahada*, mango, tamarind and jackfruit. The land use figures show that 48 per cent⁵ of Nayagarh's geographical area is notified forest area with Daspalla being the most forested block.

Siali (*Bauhinia vahili*), a climber, is found in the dry deciduous forests of central India and is invariably found in association with sal. But unlike sal, the *siali* leaf is larger in size and retains green colour even after drying, giving it an edge over sal in terms of market perception. Moreover, *siali* leaf is available for collection for around nine to ten months a year, making it an almost year-round livelihood option⁶. The production is less during summer and most during early winter. Though the availability of leaves in the forests is also high during the rainy season, the collection is low because of fear of attack by various kinds of insects which breed on *siali* leaves. Also, pest infestation affects the quality of the leaf. Mostly, the women and children of *adivasi* households collect the leaves from the forests which are then processed for sale. Sometimes, and in some areas, men too go to the forests for collection but tend to maximize the day's collection by cutting the climber itself rather than picking the leaves. There are traditional boundaries defining the area of collection of a village. Any violation of this boundary results in conflict between and among villages and often culminates in indiscriminate cutting of the *siali* climber. As the *siali* tree grows old, the production of leaves goes down and the size of the leaf becomes comparatively smaller. The traditional wisdom is to cut the climber at a distance of two feet from the root so that regeneration happens in the rainy season⁷. *Siali* is often called the golden leaf because of its cash yielding nature and the *siari* parab (*siali* festival) is common in the *adivasi* areas of Orissa.

The policy overhaul and the trade

Monopoly leasing of non timber forest produces (NTFP) was the key feature of the

state policy till March 2000. Mostly state corporations like Orissa Forest Development Corporation (OFDC) and Tribal Development Cooperative Corporation (TDCC) were given lease to procure and sell *siali* leaf products from primary producers. The intention was to ensure fair price to the forest dwellers and harvest the resource as per the carrying capacity of the forests. After the coming into force of Provisions of Panchayats (Extension to Scheduled Areas) Act (commonly known as PESA), the Government of Orissa, on March 31, 2000, notified *siali* leaf as one of the minor forest produces to be managed by the gram panchayats under a new policy on procurement and trade in NTFPs. This facilitated the entry of multiple players, especially small traders, into the market and enhanced competition.

The PESA Act conferred ownership rights of minor forest produces on the Gram Sabha in Schedule V areas, which make up 41 per cent of the geographical area of Orissa. While passing the enabling legislation to implement PESA in the state, the Orissa Legislative Assembly extended the provisions relating to minor forest produces, thereby transferring ownership of minor forest produces to gram panchayats across the state. A uniform legal framework for trade in *siali* leaf and its products in both Schedule V and non Schedule V areas created a conducive market and enhanced volume by facilitating hassle-free aggregation. It may be mentioned here that Daspalla is not a notified Schedule V area.

Fourteen out of 30 districts in Orissa produce *siali* leaves. At one point of time leases were given to OFDC and TDCC for 23 forest divisions of Orissa. The potential as assessed by the state Panchayati Raj Department stands at 1,465 truckloads for 13 districts, each truckload carrying 210 bundles of 1,500 pieces each.⁸ Since the first lease for procurement and trade in *siali* leaves was given to Mala Baniya Samabaya Samiti, Tikabali in Kandhamal district in 1950, some kind of regulation has existed for trade in *siali* leaves. Nevertheless, unorganized trade by small traders account for 50 per cent of the turnover. The traders visit the villages on a particular date/day on a bicycle and collect the produce from the doorstep. They pay in cash and often give an advance.

The intervention

The intervention involved introduction of technology, provision of skill upgradation, acquisition of market space and creation of infrastructure, all of which required collaboration with a host of agencies and people having relevant competencies.

To begin with Manav Vikas got a grant under the Special SGSY programme for SHG development for 50 SHGs. It identified 17 villages and willing women of *adivasi* households who could be trained in tailoring. In each village, 10-17 machines were given to women willing to take up stitching of *siali* leaf plates. An intensive one month training was provided to 45 women by a master trainer from

Andhra Pradesh. The training had three components, namely, tailoring, leaf plate making and minor repairs. During the period the trainees were provided a stipend of INR 2,000. In addition, the leaf plates they produced were purchased for a discounted price.

Warehouse spaces were hired in five places to serve three to four villages each. Each warehouse cost INR 120/ per month in terms of rent. Dates were fixed for collection of produces and payment of money. A godown built by ORMAS in the village of Talagaon was also maintained and used by the organization.

In the meantime, an advanced leaf plate unit came up in Buguda colony at a cost of INR 5.36 lakh. This facility has a workshed, godown space and office and it came up over a period of three years. There are 25 machines on which 25 women can work at any given point of time. As of January 2008, 25 women from four villages were on the muster roll maintained by the organization. Records revealed that there were 11 and 23 working days in May and June 07 respectively. The women can join and leave work any time between 9am and 4pm according to their convenience. They are paid on piece rate basis. Threads and needles apart from leaves and jars are provided by the organization. The centre is manned by a supervisor and assisted by a mechanic who does the repairs in case of breakdowns. There is another person who acts as an assistant cum watchman.

Since this intervention was conceptualized after observing the market, scouting for buyers, broad basing the buyers in terms of numbers and spreading are some of the major tasks performed by the organization. It started with a buyback arrangement with Annapurna Cottage Industries, which was the only buyer as long as ORMAS was managing the affairs. Now there are 13 buyers in Cuttack itself. It has buyers in major industrial hubs of Orissa like Rourkela, Joda-Barbil and Angul-Talcher. It has a buyer in Rairangpur who caters to the industrial area of Jamshedpur. Aggressive marketing efforts have ensured that there are buyers as far as Mumbai. The marketing strategy has three elements. Bulk buyers in the form of Annapurna in Hyderabad provide the threshold. Being closer to the production centres, dealers in major cities of Orissa ensure higher margins. Tie ups with specialized agencies like Sasha, Kolkata has meant entry in international markets and a brand name.

Though market development efforts succeeded in creating a demand, the Daspalla centre was not able to cope with the increased demand, especially that for pressed buffets. Matching the demand schedules with supply was becoming increasingly difficult because of erratic supply of electricity. Hence, it came up with a processing unit under the name of Sraddha Enterprises in Bhubaneswar. It was registered as a small scale industry making it eligible for tax benefits, cheaper electricity tariff and accessing mainstream credit.

Sraddha Enterprises started operation in April 2004 with five machines and 10 women workers in an 800 sq ft space in Bhubaneswar. In August 2008, the unit had 26 women working at 13 machines in a workspace of 1,800 sq ft. The unit is manned by a manager, a technical and a semi-technical person and a packing assistant. The production figures for the last five years are given in Table 1.

Table 1
Production over the years

Year	Production of stitched plates in lakh units	Production of pressed buffets in lakh units
2002-03	44	3
03-04	52	10
04-05	60	6
05-06	53	1.08
06-07	54	
07-08	59	

Better prices, spreading benefits and a socially inclined entrepreneur

The impact of this intervention was studied both from the perspective of increased unit price of the product for the forest dwellers and increase in their household income. The fundamental change that has taken place is that producers now get differentiated prices instead of the former uniform rate irrespective of the size of the leaf plates. The standards like 14, 16 and 18 inches are now accepted and distinguished by the producers. In 2002, the rates got by the producers were INR 22, INR 24 and INR 26 for 100 pieces of 14, 16 and 18-inch machine stitched plates respectively. When the intervention was initiated, the rate was a uniform INR 10 for all sizes.

A new market segment has been created. Initially a niche segment; it has taken a substantial pie of the overall market over time. Many players have entered the market, thereby taking the benefits to leaf plate makers across the state. Leaf plates and cups were earlier associated with “rural feasts”. Now it has become an integral item in the list of an urban caterer.

Assets in terms of machines and skills have been bestowed in the hands of primary producers. The intervention has produced a generation of trainers which is passing this skill to the next generation in the family.

The effort has produced an entrepreneur who is inclined to work with the rural producers, especially *adivasis*, and disadvantaged urban dwellers in spite of multiple hurdles. He has been innovative with production processes and institutions. The experience with similar kind of institutions has been put into practice. From a job seeker to an employer, the journey has been a long and enriching one.

Changed Lives

On a normal day, Mamata Jani, 31, walks 2 km from her village Mitukuli to the workshed in Buguda colony to stitch leaf plates. Married for 12 years, she is part of a six-member family comprising parents-in-law, husband, son and daughter. The family has four acres of land fit for producing kharif paddy. They also grow some black gram and *kandula* in the rabi season. In December 2007 she worked in the shed for 15 days and earned INR 600. When told that this is not big money, she retorts, *“I cannot work as a wage labourer as I have to take care of my family. Here I decide the work, when to come and when to go. Moreover, this amount meets the cash deficit in the family. I can also take an advance. I have been able to send my son to school.”* Mamata is one of the 25 women from four villages who look to the workshed as a source of stability in their family income.

Dhobani Goud (38) migrated to Bhubaneswar along with her mason husband from Buguda area of Ganjam district in search of a better life. She has two sons and two daughters in college. They live in a slum. She stitches plates in Sraddha Enterprises Bhubaneswar facility and earns INR 1600-1800. In July 2008, she earned a monthly wage of INR 1,670. She works from 10am to 6pm in the workplace which is a 10 minutes walk from her residence. She invests the money in the education of her children and also saves a part of it for her daughters' marriage. Dhobani is one of the 17 women from disadvantaged families living in slums who come to the unit for a better future for their children. The unit also provides means of livelihood to five destitute women.

Sashi Bhusan Behera from Phulbani has been working with Manav Vikas as a mechanic for the last eight years. He is a tailor master and gets a monthly salary of INR 3,800. He has worked in Daspalla and is presently in Bhubaneswar. He handles 7 to 8 repair jobs per day including repair of pressing machines in which he has no formal training.

Analysis

The objective of the intervention was to enhance the income of forest dwellers by using the natural and human capital and encashing an opportunity to serve the high end markets. The portfolio of people to be impacted by the intervention comprised four main livelihood activities, namely, subsistence farming for partial food security,

forest produce collection, home based processing and sale and wage labour. The last two are the sources of cash for the family. But whereas wage labour is not available all the days round the year, there is an annual calendar of forest produces. Another critical aspect is that women dominate the forest produce arena whereas men dominate the wage labour arena. An analysis of the labour market reveals that the daily wage for women in agricultural operations hovers around INR 25, less than half the minimum wage. Though Government works offer minimum wages, these are far less and require travel to a distant location. As one Binchala Malik of Buguda colony put it, “*Who will go and work in the sun and heat?*” The area does not have high levels of migration either. Access to and perception of the labour market is generally negative.

Reaping the resources

The rich forest vegetation providing multiple products is seen as the safest bet by the 20,000 odd population of eight *adivasi* dominated gram panchayats in Daspalla block. From hill brooms in September-October to *amla*, *harra* and *bahada* in November-January to bamboo harvesting and *kendu* leaf (KL) bush cutting in January-March to *mahua* flower and *kusum* seed collection in February-April to KL collection in April-May to sal seed, mango and *mahua* fruit collection in May-June to leaf plate making for around six months, forests are abuzz with activity for around nine months of the year. A conscious search for economic opportunities may be rewarding in terms of higher wages, but it is also about making a choice, and while doing so factors like being part of a family and society come into play. A majority have chosen to take advantage of the resources available at the doorstep. Moreover, the skills have been honed over years and generations. The factor conditions thus favour supporting livelihood opportunities in the forest produce sector.

Sensing and developing the market

Market is often considered as the biggest bottleneck in any successful livelihood intervention. This is an intervention that began its journey from the market. The potential buyer had a market in mind that is green conscious yet will not compromise the comforts of a plate. Hence the demand was for a product of different specification rather than an entirely different product. The market was elite and urban and small. It was physically at a distant location and thus involved higher servicing costs. Producers were never exposed to that market. Going for that market was a tough decision. It required investment at the production end, involving infrastructure like worksheds and godowns. There had to be investments in training, machinery, quality control and supply chain management for raw materials like boards, jaris, threads, needles, etc. So relying on one particular buyer would have been a costly mistake. Conscious development of local market was an integral element of the strategy. The result has been overwhelming. Now, 90 per cent of the

turnover comes from buyers within the state. The buyer base has increased while the earlier one has been retained. The retail market has also developed with pressed buffets finding a prominent place in the range offered by the retailer.

The business model

The business model of distributed home based production and dedicated production centres within the control of the organization has helped the organization to overcome the mismatch between production and supply schedules. The choice of product basket of pressed plates and buffets is aimed at capturing the middle and upper end of the market. Though the production centres account for only 20 per cent of the production of stitched plates, they act as buffer in times of seasonal movements in demand. The flexibility of work schedules and availability of cash advance fits into the requirements of the stakeholder population. The focus is clearly on the market. The intervention did not have much institution building component. It used SHGs only for accessing machines at subsidized cost and training.

The SSI called Sraddha

The unit in Bhubaneswar in the form of an SSI was initially a response to electricity problems in the Daspalla unit. But now the entire pressing operations have been shifted to Bhubaneswar. The raw materials for pressed buffets like cardboard and LDPE (a synthetic fixing element that joins two leaves) are sourced from outside and need not be transported to the Daspalla unit, 160 km from Bhubaneswar. Another factor that helped in determining the adoption of this institutional form was access to commercial credit at concessional rates. Now the unit enjoys a cash credit limit of INR 5 lakh at 11.5 per cent interest.

Looking at the costs and the revenues

The organization has not made any investment in fixed costs as far as the Daspalla operations are concerned. The entire investment of INR 5.36 lakh was financed by ORMAS and DRDA under the Special SGSY programme. The training cost was also sourced from DRDA. The machines at homes are owned by individual producers who become owners after payment of the loan. As regards operating cost, the cost estimates for a truckload are given in Table 2.

Table 2
Cost of a truckload of stitched Siali leaf plates

Sl. No.	Cost Head	Cost in INR
1	Payment to the producers @INR 24 per 100 pcs of 16 inches	75600
2	Bundling @INR 2 per bundle	420
3	Loading	450
4	Loss due to white ant infestation and transport (2.5%)	1890
5	Tarpaulin and Gammaxine and NGO margin	18900
6	Royalty to ORMAS	3150
Total		1,00,410

At the rate of INR 70 per 100 pieces, the sale value of a truckload of produce comes to INR 220500/. This means that the above costs account for 50 per cent of sale revenue. But the above cost estimate does not include the INR 7,200 paid as annual rent for the five warehouses. Similarly, the salary cost of three persons based at Daspalla and the managerial costs of the Coordinator of Manav Vikas and the chief executive based in Bhubaneswar are also not accounted for.

The cost components and their respective shares for a 16 inch pressed buffet produced at the Bhubaneswar unit are given in Table 3.

Table 3
Cost of a pressed buffet

Sl. No.	Cost Head	Cost in paise
1	Stitched plate	26
2	Cardboard	100
3	LDPE	4
4	Labour cost	11
5	NGO margin	6
6	House rent	3
7	Electricity	2
8	Salary of human resources	2
9	Packing	3
10	Transport	3
11	Interest	3
12	Maintenance	1
13	Provisioning for taxes and duties	2
Total		166

The organization pays a royalty to ORMAS at rates of INR 1, INR 2 and INR 3 per 100 plates of plain stitched, stitched and pressed and pressed buffets respectively. An internal cost benefit analysis reveals a return of more than 20 per cent even after accounting for fixed costs incurred by ORMAS, costs not accounted in the Tables above and an opportunity cost of 10 per cent.

Keeping pace

The shift to machine stitched plates has led to a 240 per cent rise in the price obtained by the plate makers. This has happened over a six-year period. The annual incremental growth comes to around 35 per cent. This portfolio of their livelihood basket has grown faster than the other portfolios and more than the rate of growth in the country's GDP. They incur additional costs in terms of threads and needle. This is neutralized if the cost of non adaptation to the changing demand pattern is taken into account. Though the lot of the plate makers has not improved greatly, the intervention has certainly been a ray of hope in terms of stable income and an appreciable change in consumption levels of food and non food articles.

Listening to what women say

In a focus group discussion with women, the changes perceived in their lives were

mapped. The stress was not on the amount of money that flows into their families, but the ability of this money to generate hope. The money helps them to educate their children and marry their daughters to better-off families. The first group of advanced plate makers takes pride as trainers and makes some money occasionally as trainers for women in other parts of the state. Some of them have been able to participate in fairs and exhibitions in Bhubaneswar and other places. In terms of income they get INR 40 to 50 per day against the wage rate of INR 25 in agricultural operations.

Backseat for conservation

The general trend of degradation of forests has impacted the availability of raw material, that is, *siali* leaf. The major cause of degradation is not the increased production of *siali* leaf plates, but rather a thriving timber trade which eliminates host trees. The organization believes that it cannot do much in this respect. “*We can only tell them not to cut the siali climber,*” says the Coordinator of Manav Vikas. The forest department's so called scientific management is also playing havoc with the availability and regeneration of *siali* resource. During the regular thinning and cleaning operations, *siali* often becomes the first casualty as it is a climber and is thought to throttle the growth of the host species. .

Challenges

The major challenge facing the intervention is the dwindling raw material resource. A large area has been declared a sanctuary making it a no-collection zone. The increased pressure on the truncated collection area has affected regeneration. Production has come down and, consequently, the number of operational days in the workshop in Daspalla has also declined. Leaves are being procured from the neighbouring district of Kandhamal to meet the requirements of the Daspalla unit, thereby increasing the cost. To meet this challenge, the organization is working on establishing a base in Daringibadi in Kandhamal district. But that will not benefit the plate makers of Daspalla in any way. Moreover, investments have to be made in machines and skills. The question is how long can the sourcing of raw materials be shifted from one location to the other. The issue of conservation and development of the resource has to be addressed in order to make it a reasonably sustainable livelihood option.

The second major challenge that affects the entire forest produce sector is how long the *adivasis* will continue with this livelihood option as access to labour market increases, resulting in higher wages. The National Rural Employment Guarantee Scheme (NREGA) has become operational in this area since 2007-08. Of late, migration has also increased from this area indicating the preference of the youth for other better paying occupations.