

Title: Propagation of Taur plants and utilization of Taur leaves for making leaf plates under NTFP.

Background : The lower and middle hills of Himachal Pradesh known as Shivalik and Jutog ranges of hills have formed many valleys which are fissured with numerous water streams. These relatively low altitude areas ranging from 100 m. to 1000 m. are having long lianas with spreading leaves which perpetually cause shade over the vegetation in the gorges so formed. Amongst these lianas, most prominent is Taur (*Bauhinia vahli*) which has large spreading leaves. Traditionally, people in Himachal use these Taur leaves stitched together into leaf plates called 'pattal' as plates for eating during functions and religious ceremonies. These Taur leaves are used fresh. However if kept in bundles for longer period, these tend to be turned black or infected by fungus, rendering them unusable for the purpose these have been collected. With the passage of time, some people have started getting into the business of making leaf plates out of these Taur leaves which are dried and fused to have longer sustainability. However people involved in collection and pattal making of Taur are at a loss to compete in the market with manufacturers. Since most of such people live in far flung areas, they need to be extended help to ameliorate their livelihood condition. Hence this proposal.

Scheme : Specific VFDS and CIGs are being constituted in the areas under the project where people are already involved in the business of pattal making. An assessment of available material in the nearby forests will be made so that raw material is available in the vicinity of the work place. A shed will be provided on Village Common Land or on the private area as the case may be, where partial drying of collected leaves will be carried out and also where members of the CIG can sit and work. Either stitched or glued or stuck together with a small straw (traditional method) leaves then will be fed into provided machine along with a thick khaki paper for stiffness and plate of desired shape with appropriate dye is made in the hot press. The dried plates are stored in bundles of 100s and packed for marketing at various local markets in Bilaspur & Mandi. Subsequent picking up of business will necessitate to expand the unit for involving larger groups will need advance machinery and marketing elsewhere in the country and possibly export, depending on the quality of output.

Activities : Two such places where people where people are already involved in this business have been zeroed down are **Slapper** and **Katola** in district Mandi. The group at Slapper consists of 6 persons and need also help for enhancing the resource by way of Taur plantation in nearby forests and wastelands. The group at Katola is very large consisting of whole families and some 150 people involved. This needs to be broken down into groups of up to 6 members and all the machine units provided at a common place (shed) in the village which will also be required for other activities and affixing their machines such as drying / stitching / gluing / bundling etc. Marketing will be carried out by the Cluster representatives of the VFDS by way of direct sale, auctioning and e-auctioning. Group formulation, division of labour / work and local issues are under progress.

Costs involved :

| Cost for leaf plate making | | | | |
|-----------------------------------|---|--------------------------|----------------|---------------------------|
| Sr. No. | Activity/ Equipment | Rate/ per unit | Unit(s) | Cost (Rs. In Lakh) |
| 1 | Taur plantation (200 plants per Ha.) | Rs. 60000 per Ha. | 2 | 1.2 |
| 2 | Nursery raising in P-bags | Rs. 10 per plant | 4000 | 0.4 |
| 3 | Raising an open shed having a room (10'x30') | Rs. 7.4 Lakh per shed | 1 | 7.4 |
| 4 | Paper plate making machine with dye | Rs. 1.2 Lakh per unit | 2 | 2.4 |
| 5 | Stitching units | Rs. 15000 per unit | 2 | 0.3 |
| 6 | Brown cardboard paper | Rs. 0.2 per sheet | LS | 0.1 |
| 7 | Packaging | do | do | 0.1 |
| 8 | Transportation | | LS | 0.5 |
| 9 | Plantation of bamboo (500 plants per Ha.) | Rs. 34300 per Ha. | 1 | 0.343 |
| | Total | | | 12.743 |

Financial Returns : Working of two machine units results in formation of 3000 plates per day (8 hours working in a day by 6 persons). After carriage, each plate will be sold at a cost of approx. Rs. 2/- i.e. for Rs.6000/- per day for 330 working days the total output will come to Rs.19.8 Lakh as sale price per year. It will give a return of Rs. 16.62 Lakh per year. Therefore Rs. 2.77 Lakh will be available to each working person each year or approx. Rs. 23000/- per month will be available.

Cost Benefit Analysis : Benefit : Cost = $158.4:25.443 = 6.225$, which is in fact a very high figure, only to be negated by the number of workers, which are 6 in the current scenario. This analysis is for the project period of 8 years i.e. Rs. 158.4 lakhs for 8 years.

Sustainability : Project is **viable** with the operation of **Revolving Fund** where limiting factor i.e. Taur leaves will be replenished by plantation in 5-6 years and also in 5-6 years alternative bamboo plantations will be available for the scale leaves to be formed into better quality plates.