

# Social forestry project of straw products limited An experience from koraput district of Orissa

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## ABSTRACT

The Paper deals in detail about the 'Social Forestry Project of Straw Products Limited'. The Scheme is operating in tribal dominated Koraput District of Orissa. The problems of short horizon of planning, heavy browsing pressure and lack of support infrastructure come in the way of execution of the Scheme. The Plantations as an alternative to agriculture in dry lands are found to be not suitable for the area and hence agro-forestry has been tried in the area. The issues like absentee land lordism, land fenancy vis-a vis plantation scheme have been discussed here in detail with possible alternatives and solutions for effective execution of Scheme.

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### Introduction :

Widening gap between demand and supply of pulpwood from traditional sector (read Forest Departments) has led to planning for resource building through non-traditional forestry. The case of Straw Products Limited with J.K. Paper Mills situated at Jaykaypur, Koraput District, Orissa is no different. The existence of three major forest based Industries namely J.K. Paper Mills, Sewa Paper Mills and Mangalam Timbers Limited in a single district within a radius of 100 Kms, make the supply situation even more tight and that has led to searching new avenues for pulpwood supply. Also new combinations are tried and from a stage when bamboo used to be the only raw material, now bamboo is mixed with hardwoods like Eucalyptus and Casuarina.

### Status of non-traditional forestry in the region :

Illusions of existence of large forestry area in the district and particularly in this part has in a way come in the path of development of non-traditional forestry sector. Even the SIDA—assisted Social Forestry Programme has been extended to the region only in the second phase. Also the Social Forestry Scheme laid stress on mixed plantations catering to the needs of common man like firewood, fodder and small timber.

One can safely say that, demand for pulpwood material has been increasing over the years, but no systematic approach has been made for fulfilling needs from local supplies. The farmer-entrepreneurship remained untapped and plantations in private sector are almost non-existent.

### Social Forestry Programme of Straw Products Limited :

The Scheme activated in 1990 with a view to initiate the local farmers in to plantation sector laid stress on developing entrepreneurship among local farmers. The objective was :—

- (i) developing a market oriented economy whereby farmers take up plantations to benefit from existing huge market for their produce.
- (ii) extend technical and logistical help to farmers. The farmers are new to the sector

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and very few had any idea about the technicalities involved.

(iii) Stress on productivity than numbers.

### **Socio-economic Environment :—**

It becomes necessary here to describe the Socio-economic environment in which the Scheme has to operate before one can go into rationale of these objectives.

The area within 100 Kms of Mill presents a highly varied socio economic environment. On one hand if we enter neighbouring districts of Andhra Pradesh the farmers are traditionally progressive thanks to the strong extension set up in agricultural and forestry wings. Its effect is there on the areas bordering Andhra Pradesh. The areas within 15 kms. of Paper Mill has many such enterprising farmers who migrated to the area some 20-30 years back. They have established large agricultural farms and are change agents in the area. They are early adopters in all agricultural schemes and are coming forward for the plantation scheme also. On the other hand the region also has large number of tribal population for whom shifting cultivation is away of life. They no doubt own large scale agricultural land, but most of the time land on plains is fallow, they prefer to cultivate on slopes for cultural reasons. The non-tribal local population is mostly business class or salaried employees. The land owned by the businessmen again remains fallow as interests lay in business of forest and agricultural products than production of commodities. No Government Scheme can be said to be successful not only in agricultural sector but also in any development sector. The agencies like ITDA which are operating in the region are emphasizing on agricultural and soil conservation but little on forestry that too commercial variety.

As far as natural resources are concerned, the regional is criss-crossed by many mountainous streams (both seasonal & perennial) and has two perennial rivers Vamsadhara and Nagavali. The area is spread over wide ranging altitudinal levels, soils vary and also temperature limits. The only factor common & binding is it being inhabited by tribal (non tribals to a limited extent) who are struggling in an over exploited unplanned natural resource regime. The people may

be sceptical about development programmes, but definitely are aware about positive aspects of various Schemes.

The economy is predominantly agro & forest based. Most of the land in the area is rain-fed dry land, so only one crop is grown in the rainy season and cattle are controlled only for 4-5 months period during cultivation season. The tribals own large herds of cattle as they got to incur expenditure on them. Forest based economy is either working as labour in works of forest department or Industry, or it is collection and selling of minor forest produce. The economy is an economy of sustenance and time horizon for economic planning never extends beyond one season or so.

### **Basic Problems for a Social Forestry Programme -**

The Social Forestry scheme while operating in such a social economic environment has the basic obstacles like :

- (a) Increasing time horizon for economic planning. How a tribal or non-tribal who plans for a maximum of one season can understand logic of investing and working towards some proposition that would yield results after 7 years or more.
- (b) How to make him understand the logic of careful planting and constant after care and maintenance when he is working in a system where he sows the seeds and returns to the field only at the time of harvesting.
- (c) How a tribal can understand logic of producing more, when he really doesn't bother about yields from his agricultural field. Also vagaries of nature have made him immune to the crop failures and he can take losses on his stride as curse of God.

With these very factors in mind, the objectives of the Scheme were designed.

### **Our Experience in the field (problems and prospects) :—**

After carefully analysing basic ingredients of Socio-economic environment, the extension wing went into the field to tackle the problems. The strategy evolved was

- (i) Enroll the large professional farmers into the Scheme as they would be more than willing to benefit from the assured market for the product.
- (ii) Develop some nodal points for the scheme around the urban and semi-urban areas and try to extend the scheme to interior areas.
- (iii) Use the plantations raised by progressive farmers as a vehicle for extending the scheme to small farmers.

Working on this strategy, in the first year progressive farmers in and around Rayagada were contacted and the results were quite encouraging. The plantations raised by them can be compared with the best in the state. Also with a view to initiate the Scheme in tribal dominated pockets, land has been taken on lease in strategic locations and demonstration plots were raised.

The results have taken the extension wing by surprise. Going into the field with a view of planting 250 Acres, a list of 2,000 Acres could be had with proposals for planting in the 2nd year. The area of operation had to be extended as demand came from large farmers spread on all sides of Mill. Though the man was willing to plant, infra-structure in the area was not lending the helping hand. Though the efforts were to raise seedlings within 5 Km. radius of the field, it was not enough. Most surprising aspect was farmers' willingness to come together and work towards common goal. The proposal for the decentralised farmers nurseries were welcomed and in the 2nd year of operation, seven such nurseries were raised with 75,000 seedlings in total. The maximum size was for 34,000 seedlings and minimum was for 5,000 seedlings. In two nurseries groups of farmers have come together and looked after all nursery operations and raised seedlings in their own plots. All the material was supplied by the Company and labour component was paid after seedlings were planted in the field. The quality of seedlings raised can be favourable compared with that of company's nurseries. In the 3rd year (1992 season) even more people are coming forward and are expected 20 such nurseries shall be raised and they would be about 30% of total stock requirement.

As far as plantations are concerned, though the planting work was done in their fields with all interest by

farmers, the after care aspect proved to be the lacuna. The major problems were :—

- (1) fencing of the area-The area has a very high bovine pressure, as a result of which the mortalities due to trampling are very high. No stall grazing system is prevalent. So the areas under plantations are the first targets during agricultural season when other lands are protected.
- (2) As discussed earlier the tribal farmer is not used to system of constant supervision. So plantation don't get properly soil worked.
- (3) The rain-fed agricultural systems demand more time from farmers during early season, so plantations get delayed. A specific example is during 1991 monsoons the rains were erratic during first fortnight. So the plantation works fallen after first rains faced near drought situation. In the middle there were flash floods all over the region and main connecting culverts and bridges got washed away. So the farmers had to reinvest money and time in agriculture and plantation work become very slow
- (4) Non-existence or poor maintenance of a road net work hinders seedling movement from nurseries to field. Also other infrastructure is poorly built.

In a particular area, in 10 Kms radius only two bullock carts were present and all transport of seedlings has to be done in them only. The tractors could not be engaged due to poor road conditions. So again it resulted in delay

After analysing these problems and studying the state of plantations, it become clear that any system which presents forestry as an alternative to agriculture is difficult to make dent in the area. The solution again came from the trend setters i.e. progressive farmers around Rayagada only. It was an agro-forestry system with oil seeds or pulses as the agricultural ingredient.

#### **Agro-Forestry-The ultimate solution :**

Traditionally the tribals adopt mixed cropping and agro-forestry combinations in the field in this region.

The major agricultural crop for wet land of course is rice, but for the dry land it is Niger, Sesamum or mustard. Also in the dry lands they grow all sorts of minor-millets and pulses. The vagaries of nature (mainly erratic rainfall) has taught them to grow a combination of crops on hill slopes. The Niger is grown predominantly, but it is seen mixed with Bajra. Also on the periphery it is Castor grown as biannual. Part of patch also has Arhar in it. For such tribals idea of woody perennial is appealing. In the pockets with abundance of water they grow bananas.

In the Kasipur region of the district, Integrated Tribal Development Agency has encouraged tribals to take up silver-oak with other agricultural crop in spacing of 5 mt. x 5 mt. or more. The results are quite encouraging.

When explained about possible agro-forestry with Eucalyptus, the farmers were willing to take up agricultural crop along with plantation crop. The spacing adopted was primarily 3 mt. x 1.5 mt. Wide variety of agricultural crops were taken up in inter-spaces. In one area of 25 Acres Plantation, first year it was vegetables followed by Sun-flower. In the second year again Sun-flower was taken up. In another area, Niger was taken up in 6 acre patch and in second year attempt was made to grow cotton in inter-spaces (3 mt. x 1.5 mt.). But as cotton failed due to erratic rainfall, immediately it was ploughed up and Sesamum was cultivated successfully. It was very difficult to quantify the inputs or outputs from such agro-forestry combinations, but purpose of saving plantations from browsing and constant after care were successfully served. Both the plantation today have survival rates above 90%.

Also agro-forestry combination has proved to be an incentive for watcher wherever they are to be engaged. In Company's plantation of 1990, in a patch of 10 acres, about 4 acres were ploughed and niger was grown. The arrangement was that the watcher shall invest for agriculture and take the total produce. The patch has presently maximum survival (more than 90%) where as the patch that was left uncultivated was lagging both quantitatively as well as in growth. Despite all efforts from watcher the uncultivated patch was repeatedly browsed and here growth was dismal.

Basing on these very experiences the extension team planned for future programme. Now all the farmers are encouraged to take up the agriculture along with forestry crop. The plantation process is altered to suit the system from the time proven pitting and planting variety. The alternative is :-

- (1) Clear the land in the Summer month of May from all the weeds, bushes etc.
- (2) Plough up the land twice or thrice with final ploughing along the contour.
- (3) Sow the seed of agricultural crop.
- (4) Scoop the soil with spade upto a depth of 1 ft.
- (5) Plant the seedling after mixing thoroughly 10% BHC (about 10-15 gms.) with the soil or Aldrex during nursery stage itself.
- (6) In case of crops like Niger, the plantation shall be ploughed between rows and broadcasting of seeds shall be done in late August.
- (7) The broadcasting of seed takes place coinciding with first soil working of the plantation.
- (8) The plantations shall have to be soil worked thrice before the agriculture crop is harvested so that the plants can reach a safe height i.e. 1½ mt. or so by first Summer.
- (9) Wherever possible the plantations are to be fenced with brush wood etc.

#### **Social Forestry through Tribals – Small is beautiful :-**

Organising the tribals towards stall/controlled grazing has not met with any success till now, and also traditional agricultural system of one crop in rainy season gives them freedom for leaving animals in Summer. Also Summer is the period when various minor forest products like Mahua, Kendu-leaf, Mango, shall be available in plenty and all the tribals shall be busy collecting it. So the tribals are not interested to spare some hands for controlling animals.

On the other hand most tribals have small areas (about 2 Cmts to 1 Acre) fully fenced where vegetables like beans or castor is grown. These small areas can be target areas for small plantations of 100 - 500 plants each. These are fertile and intensely worked.

Already some such areas are taken up and the results are quite encouraging. Due to high fertility and soil working, the plants grow very fast and they are serving demonstration purpose for others to take up. Specific example is Kasipur where tribals constitute more than 90% of population. Encouraged by success of section of farmers now many tribals have started contacting ITDA for seedlings.

#### **Absentee land lordism-Boon for Social Forestry-Is it a myth ?**

Large patches of agricultural land in the district are in the hands of wealthy businessmen community who possibly might have cornered them through money lending. Most of these people deal in forest goods and agricultural commodities and are more interested in trade than agriculture. Lured by the prospects of heavy profits through plantations, some of them have planted their areas. But experience with this group is painfully dismal. They are willing to spend money but no time. They appoint a watcher but there is no control on him. Such a tendency of these business community led to failure of their plantations and left a perceivable negative impression in the peoples mind. The myth that absentee land lordism is a boon for Social Forestry got exploded. Now extension wing got choosy about prospective planters and absentee land lord do no more figure in the list. Similar is the case with those classes of land owners who don't cultivate

land themselves but give on yearly lease. The farmers who take land for a year is not interested about plants and that resulted in plantation failure.

An alternative has been thought of to tackle this problem. These farmers are to give their lands on long lease to the landless and apart from share in agricultural crop the lessee is to get a share in the plantation product also. Details are being worked out and in future efforts shall be directed to enroll such farmers into the Scheme.

#### **Conclusion:—**

The experience in the area shows that no single system can work in the area and two or three alternatives of management are to be presented for success in the area. They can be :—

- (1) Small plantations in backyard with 100—500 plants per tribal.
- (2) Leasehold plantations for absentee land lords where agriculturists also get share in plantation crop.
- (3) Large plantations of 5—10 acre size for professional agriculturists.

In all the cases only agro forestry combinations are to be encouraged and pure plantations are not viable for the area.