

Role of Forestry in Wood-Based Industry

P. M. Taggarse

With the rapid industrialisation and the standard of living going up, India is now facing acute shortage of raw materials in all the spheres. Particularly so is the paper and pulp industry. The problem that now confronts the planners as well as the executioners is how best and soon could this shortage be mitigated. Unlike other industries or agriculture, wood-based industries have to depend upon long-term programmes for the raw materials, the main resources of which are from forests and majority of the forest areas in India are owned by the State Governments. Therefore, the consumers and the producers are to plan out on a mutual understanding and solve the problem of supplies in a co-ordinated manner and so manage the forests as to aim at a regular and perpetual productivity of suitable raw material.

India has 24% of the land under forests against the world average of 33%. Our National Forest Policy has also laid down that at least one third of the land should be under forests. With even 28% of the land under forests, the annual increment, that is the yearly output, is 0.5 m³ per Ha., against the world average of 2.0 m³ per Ha. This means that with the existing conditions of the forests, we may require 4 times the land area under forest. This is asking for the impossible. Therefore, in the existing forest areas, we have to strive and achieve a higher productivity by improving the existing condition of the forests. Unfortunately for us the Indian forests, mostly classified as the Tropical forests, consist of ever so many species most of which are considered unsuitable or uneconomic for any important industrial use. At present

the per capita consumption of industrial wood in India is 2m³ per 100 persons. This forms 9% of industrial wood to the total wood production. The world average is about 40 m³. In recent years India has made good progress in technology in respect of wood-pulp, and other wood-based industries. This has made industrially acceptable, woods of species which were so far considered unsuitable. More technological progress is expected in this field and it may be possible to consume more of such species which are now considered useless for the purpose. Whatever it is the requirements of raw materials for the wood based industries are expected to touch a high line by 1975, and doubtless the industry would face shortages. Particularly the plight of the paper and pulp Industry, which has to depend upon long fibred raw materials is very difficult. The tropical broad-leaved species are mostly short fibred, which are not quite suitable for the purpose. The only long fibred material so far available is from Bamboo and grass of some species only. This is evidently in short supply. The tropical climate in majority of the Indian States does not permit the cultivation of Pines, etc. which are of the temperate climates or higher elevations. Besides, the tropical forests do not produce any of the short fibred species in a single crop, which makes the use of mixed short fibre woods still more difficult in pulp industry.

Viewed from all these shortcomings, the problem that poses before us is how best we could surmount this ticklish issue and that too in as short a period as possible. Unless this is critically analysed, studied and ways and means found out, the future poses a problem so bleak and unsteady.

Unfortunately for us, the Forests, unlike in many other countries, is a State subject, where the Central Government cannot pursue a policy of its own to iron out the shortcomings and take suitable measures. It is always in an advisory capacity that the Centre directs a policy for the States to follow. This is obvious from the remarks made by the Planning Commission that in the first two Five Year Plan periods, no special works were undertaken to augment production of pulpwood and in the Third Five Year Plan against a provision of 56,000 Ha. for planting pulpwood, it is anticipated that only 47,000 Ha. would be planted.

To achieve self-sufficiency in pulpwood as also other wood-based raw materials, it is high time, the States consider re-orientation of the forest policy. It will perhaps be necessary, as Sri K. P. Sagreya, I. F. S. as President of the F. R. I. & Colleges in his talk to the members of the Parliament in September, 1963 had rightly pointed out, to reclassify the forests and allocate areas for different purposes. Each State should have National Forests meant for the well being of the Nation as a whole, the preservation of which is necessary for the climatic and geographic consideration. The conversion of certain forests as Commercial Forests for the supply of raw materials to the industries would be necessary. There are, of course, certain forest areas relegated to the production of timber and firewood. This perhaps would be the best balanced approach to the problems.

The Food & Agriculture Ministry, in the Fourth Five Year Plan has proposed raising of 20,000 Ha. of bamboo, 40,000 Ha. of fast growing species and 2,000 Ha. of conifers plantations of which a provision of 7½ crores is made. Will this be possible for all the States to fulfil? The Planning Commission, Resources and Scientific Research Division has suggested that Paper Mills interested in undertaking plantations of bamboo and other pulpwood species should be encouraged

by leasing out suitable areas of the Government Forests at reasonable rates. It is a known fact that many of the State Governments are quite averse to this suggestion. All the Paper & Pulp Industries are aware of the fact that the raw materials are in short supply and many would be eager to raise their own plantations. The availability of land for raising plantations is posing a serious problem and challenge to private concerns. With practically all the Forest lands under the management of the States, where could the private concerns raise their own plantations? It is, therefore, in the interest of the national "build up" of the raw materials that the State should have a practical approach to this problem and implement the suggestion of the Planning Commission, by leasing out suitable forest lands to concerns which are earnest about it on any reasonable lease conditions. The fear that such leasing out of forest areas would be misused appears to be unfounded. Industries are more anxious and eager to keep their concerns assured of sufficient raw materials and no doubts of misuse should be entertained on this account.

In other countries undergoing economic expansion, industrial plantations are raised on an extensive scale. In many countries forests are private owned also. Finland, for instance, has 46% of forests under private control and it is the main industry there. Therefore, to overcome the apparent shortage a few suggestions made here, may be considered by the States. Forestry, so far as it relates to raising industrial plantations, has to be put on a "War footing". All the State Governments should strive their best to achieve the targets for the Fourth Plan period. Suitable forest lands should be made over to the private concerns, on any reasonable lease conditions for raising their own plantations. Industrial Plantations Corporation should be established to make use of the private owned forests now in a deplorable and depleted condition, to raise plantations, if necessary by suitable legislation. Vast areas lying as waste lands could be

also channelised for this purpose. With this 3 pronged attack, if it could be rightly called so, it will not be difficult to attain self-sufficiency in a decade or so. These are some suggestions to which the States could give a serious thought and implement them as quickly as possible.

The astounding progress made in other countries in raising plantations for wood pulp and other uses, should atleast make us conscious of the fact. Eucalyptus which are the quickest growing trees so far known and the amazing way in which they grow in all regions, though with certain limiting factors, have taken the stride and many countries undergoing economic expansion have resorted to large scale planting of Eucalyptus. Barring Australia, the home of Eucalyptus, which has 44 million Hectares of Eucalyptus, Latin America has 8,00,000, Mediterranean countries like Italy, Spain, Portugal, Morocco, etc. have 4,00,000, Africa 4,10,000, North America 10,000, Hawaii 14,000 and New Zealand 10,000 Hectares. In other regions the use of Eucalyptus in plantations has become more widespread. India is perhaps nowhere in this race for self-sufficiency. Though short-fibred, Eucalyptus can be used for wood pulp in certain mixture and technique is fast developing whereby Eucalyptus could be used in much greater proportions.

The species of bamboo, which are longfibred, will be always in demand for good quality paper. This species could also be grown in suitable localities in India. Harvesting bamboo crop is usually from 8 to 10 years after formation of

plantation and certain species would give an annual increment of anywhere 4 to 10 tons per acre.

With the apparent short-supply of raw materials for paper manufacture, the management of the West Coast Paper Mills have lost no time in raising self-plantations of Bamboo and Eucalyptus, to supplement their requirement and attain sufficiency. As you all know by now the West Coast Paper Mills went into production from 1959. Though in the early teething troubles, as all industries do have, the Management, conscious of the fact that self-plantations are a must for all Paper Mills, built up the Forest Organisation both for supply of raw material as well as for raising nurseries, and plantations and experiments also. From 1960 the start was made and from 1962 regular large scale plantations were raised, both of bamboo and Eucalyptus. To date we have 1, 690 acres (836 hectares) of Eucalyptus in a private owned depleted forest area, taken on long lease, about 50 miles away from Dandeli. In our concession area in Dandeli region we have 10,400 acres (4,160 Hectares) of bamboo plantations. The average expenditure for raising and maintenance of Eucalyptus is about Rs. 300/- per acre (Rs. 750/- per hectare) and for bamboo plantations is Rs. 150/- per acre (Rs. 375/- per Ha.).

Concluding, I would strongly request you all to be aware of the grave situation and bring about in all the States an atmosphere of the motto "Self-Sufficiency by Self-Plantations" and let Lord Budha's preaching "Arise and Awake and Stop not till the Goal is achieved" ring in our ears.