

## President's Valedictory Address <sup>1</sup>

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FORESTS must now rank among the major resources of the world. They cover about one-third of the world's land surface but because of man's exploitation they are in shortest supply in the regions of greatest population, where, of course, they are most needed. The question then arises, should man spend a greater proportion of his time, money and land in recreating the forest in his immediate vicinity or should he rely on imports from forests, whose boundaries are ever receding from him. To answer this question he must make a decision, will his resources be more gainfully employed in recreating and developing the forest than in the alternative productive work available to him. He tackles the problem by trying to weigh his costs of establishment, development and harvesting against his estimated returns and by this means establishes a comparison on which he can make his choice. For most industries these calculations are relatively straightforward, the time factor is short and the costs and returns relatively clear cut and definite. But what is the picture for forestry like? To the man with money to invest it is fairly straightforward, he invests so much money and he wants a return on that money. True, his calculations are somewhat more difficult, he has to predict his returns in terms of real values 40 to 50 years hence but he is thinking in terms of timber or cellulose only and on this basis the answer seldom favours forestry.

But is this the correct answer, or rather is the question properly posed? If we look at the world in general we begin to realise the havoc caused by the indiscriminate exploitation and removal of the forest. In America, in India and nearer home in Greece and Italy we hear of disastrous floods, dust bowls and erosion, with consequent loss of agricultural crops, with increased poverty and hunger.

Obviously there is more to forestry than is included in the economist's calculations or the Faustmann formula. What other advantages are conferred by the forest which are left out of the cold profit and loss calculations, apart from the tangible returns of timber or cellulose, which measure the productivity of the site? Forests build up soil and protect it from erosion; they help to control flooding by the interception of the falling rain and by keeping the soil porous by the myriads of channels formed by decaying roots. Forests conserve and purify municipal and industrial water supplies, and they prevent the silting of reservoirs. They harbour and protect a great number of animals and fungi useful to man; they break the force of winds and provide shelter for man, beast and crops. Lastly they provide man with a place where

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<sup>2</sup> Outgoing President for the year 1964.

he can relax in peace, contentment and tranquility from the cares and worries of his work.

Who would care to transfer these benefits into terms of money; but without them the case for forestry is only partially stated. Let us face it, however, if we want an individual to invest his money in any venture we must be able to offer him a good return in money for his investment. The truth is that the individual is not interested in benefiting his neighbours and so only governments and municipal or local authorities, who consider the general good and well-being of the community and not of the individual, are interested in the ancillary benefits of forestry and can accept them in full in considering their investment. Forestry is for the nation rather than for the individual. In few places in the world to-day does forestry exist without government sponsorship and laws to protect and perpetuate the forest and it is an unfortunate fact that no nation has taken effective steps to conserve its forest wealth until it faced, or thought it faced, the consequences of scarcity.

Forestry is really for the nation and in making the case for a national forest policy we must think in terms beyond the narrow concept of economic rotations, or financial maturity, or timber or forest valuation. We must also think and plan in terms of timber processing and the forests' ancillary values of water control and conservation, of the promotion of wild life, of recreation, of erosion prevention and the many other benefits.

What are the prospects if a country decides to embark on a forest programme aimed at developing an export in timber? What is the future pattern of demand for timber in Europe likely to be? We know that the gross demand for timber is rising each year but the form in which it is required is changing and the greatest increase is in pulp and woodbased panel products. F.A.O. have estimated that by 1975 more than half of all the industrial wood consumed in Europe will be used in these forms. The demand for sawntimber is also rising but to a lesser extent and at a much slower rate, while the demand for wood to be used in the round is falling fast.

The fall in the demand for timber in the round is easy to understand. Much of it was used as fuel for light, heating and power. Nowadays electricity from many sources has replaced it for power; and domestic heating and cooking have turned to gas and oil. The position with sawntimber is not so easy to explain. It is, of course, inevitable that competition from substitutes will be keenly felt in this field. Also in this age of mass production the need for a standard product can be appreciated. Unfortunately, timber is not by any means uniform or standard and unless simple and easily applied grading rules can be devised sawntimber will continue to give way to substitutes. Perhaps some of the difficulty also arises from the fact that the sawmilling industry comprises a very large number of small units with no overall central control and this places it at a disadvantage by comparison with

its bigger and more concentrated competitors, particularly in the fields of research and co-ordination of supplies and marketing.

What of the future European supply position? Over the first half of the century requirements of industrial wood rose very slowly and because of the decline in the use of fuel wood removals also rose but little. The beginning of the second half of the century, however, has shown a sharp and spectacular rise in requirements and it is estimated that by 1975 Europe's consumption of industrial wood will have doubled the 1950 figure and more than half of consumption will be as pulp products and wood-based panel products.

How is this increase to be met? In the past, European management practices have aimed at achieving a large reserve of standing timber supporting a sustained even annual cut. Now with the emphasis on economics the tendency is to support the same cut or increment on a smaller growing stock and so show a higher increment per cent. But the gross increment is still the same and there is a danger that we may be lulled into the false security of believing we have increased increment.

The increase will have to come from improved techniques, improved strains of trees by selection and breeding, improved management by a more particular and precise attention to every step in the establishment, growth and harvesting of our timber crops and possibly from an increased area under forest.

European forests are for the most part confined to poor soils in remote areas, not easy of access and often with inclement weather. Modern techniques of fertilising and soil improvement and modern transport can yield increases here. Possibly the greatest increase, however, can be expected from the changing pattern of utilization. Size and quality no longer command the premium they did and the emphasis is now more on quantity than quality. Pulp and reconstituted wood industries can now accept small sized timber and much that was formerly waste can now be marketed and used. The fall in fuel-wood demand will allow much to be directed to these industries as well. Advances in research have resulted in an increased use of short-fibred timber in pulp industries and this has enabled a larger proportion of hardwoods to be used, which will also help to relieve the position. Also important is a more detailed and precise knowledge of increment, age distribution and species which would allow of full use of available increment, and advances in aerial-survey and assessment will help considerably here.

However, there is a limit to what can be achieved by these means, mainly because of costs. Forest operations are labour intensive and the work itself is hard and demanding; it is outdoor work which must be carried on in all kinds of weather and so young workers are not attracted to it. The forest has traditionally provided out of season employment for agricultural labour but with the exodus from the rural areas the labour force is disappearing and mechanisation cannot give the attention required to ensure maximum yield. The result is that

there is a limit to what may be achieved in increasing yields from existing forests. The question is, will it be enough, and the answer seems to be no, it will not.

Supplies from overseas will undoubtedly play an increasing part in the future and the general lowering of European tariff barriers is going to make these imports very competitive. Also we can expect that in countries in which timber is in short supply there will be a change from the present use of available material to other more productive uses. In this respect the sawmilling industry may expect to feel the pinch first, as it is at a considerable disadvantage to the pulp and wood based panel industries whose processing increases the value of the product many fold. Also in these latter industries the raw material makes up a smaller share of the gross costs of production and so a rise in timber prices can be more easily absorbed. Therefore, in any competition for limited supplies the sawmilling industry can expect to lose ground to the pulp and wood panel product industries and to substitutes.

A country entering the European timber market is likely to find that the greatest demand will be from the pulp and wood-based panel products industries and since timber is bulky to transport she will probably find it more economical and profitable to do part of the processing at home herself. There will always be a demand for high quality veneer timbers but she will probably find that in the larger timber sizes the competition from tropical forests will be severe, too severe. In between will be the sawntimber, yielding only a modest return on investment and facing the competition from substitutes.

To sum up, it would seem that, in the immediate future, Europe's soft-wood requirements will grow faster than removals from her forests can be expected to supply under present management plans, possibly faster than can be achieved within the present framework of growing and harvesting timber. Europe will be able to meet her requirements in medium and low grade hardwood timber: with this can be expected a tendency for sawn hardwood to replace sawn softwood and for pulp and wood-based panel product industries to capture an increasing share of the limited softwoods available.

Beyond 1975 what the position will be is very difficult to guess. The rate of growth in timber requirements should be slowing down but the gross demand will still be enormous. However, it is as well to remember that because of research and technological developments it is expected that some 15 million acres of agricultural land will have become surplus to the needs of agricultural crops. How will this land be used—for greater agricultural production for export or for timber to meet the Continent's own needs? Should it go to forestry, and in all probability it will, production will be high and only similarly productive lands can hope to compete.