

PRACTICABLE FORESTRY IN TASMANIA AND ELSEWHERE.

By A. MAULT.

The immense extent of forest land in Tasmania has struck every visitor to the island from the time of Abel Tasman to our own day. On the visitors who came to stay as settlers, this fact made an unfavourable impression, as its signification to them was the cost of clearing land for cultivation. And this impression has coloured and affected all that has been done in the way of dealing with forest land in the State. Trees have been regarded almost exclusively as impediments to agriculture, and not as possessing any intrinsic value worth consideration. Consequently every suggestion made for forest conservation has been regarded with suspicion as possibly entailing something to be done for forestry at the expense of agriculture and settlement. It is time that this suspicion should be banished. There can be no doubt but that agriculture is the mainstay of the country, and that nothing should be allowed to hamper or obstruct it. But a proper system of forestry, instead of doing this, would really benefit agriculture by improving climatic conditions. In fact forestry need not enter into any competition for land with agriculture. Land altogether unsuitable for agriculture is very well suited for tree growing. I know great tracts of country in France that could not be let for half-a-crown an acre per annum for farming, but which yield more than thirty shillings an acre under forest cultivation. There is an immense extent of similar country in Tasmania, and some of this could be better used for forestry than for anything else. The rule to be followed in the appropriation of land for any purpose, is to appropriate it for the purpose that will yield the largest return. By all means reserve for settlement, and for agricultural and horticultural purposes, all the best of the land; when that has been done there will be plenty left for pastoral purposes and forest conservation.

With regard to forest conservation itself, there is a great deal of misapprehension. To judge by the manner in which it has been discussed in these rooms and elsewhere, one would think that the advocates of forest conservation proposed to subject the whole of the Crown woodlands in the State to a regime of conservation. Such a proposal is not only impracticable, but useless, as it would be sure to break down under its own weight of responsibility and costliness. This mistaken idea of what is proposed has arisen from a misunderstanding of what has taken place in other countries. It is true that in France, Germany, India, and other countries

where a system of forest conservation exists, the system applies to all the State domains; but these countries are all old settled ones, in which the State domains form but a comparatively small proportion of the area of the whole territory. The woodlands of these domains are therefore only of such an extent as can be practically dealt with. It would be folly in Tasmania to do more than deal with a reasonable portion of its woodlands.

The first thing to be done is to determine what this proportion shall be, and to select the sites of the reserves. In making this selection, after taking care that land is not taken that is better suited for other purposes, the most important condition is position and accessibility; then the question of adaptability of the climate and soil of the locality to the kind of timber proposed to be grown and conserved must be considered. As the position of the reserves is thus so important, no time should be lost in determining this point, at least with regard to those in the more settled parts of the country. I understand that of the 12,000,000 acres of still unalienated Crown land in the State, about 175,000 acres have been proclaimed as forest reserves. This area I think quite insufficient in extent for future requirements, but it is still more inadequate when the location of the reserves is considered. Not only should there be large national reserves for industrial and commercial purposes in accessible places, but there should be smaller ones in the neighbourhood of all townships for local requirements of all sorts. The advantage — not to say the necessity — of doing this, seems to have been altogether overlooked in Tasmania hitherto, with the result that in such a simple matter as the supply of firewood the cost in many places has doubled within the last dozen years — and the firewood industry is an important one from the point of view of the general population. In many places also — especially places without railways — wood for constructional purposes has greatly appreciated in value. In some other countries greater provision has been shown, particularly in France, where many of the communes have woodlands that are managed for them by the National Forest Department, with the result that in some of them the revenue derived is sufficient to pay for the whole cost of local government without any recourse to rating for either municipal or educational purposes. The provision of all these necessary national and local reserves can now be made with far less difficulty than in the future, and I would strongly urge that it be at once made.

There is no necessity for any further legislation to carry out my recommendation thus far. As the *Crown Lands Guide* says, "The Governor-in-Council may, by proclamation in the

Gazette, except from sale, and reserve to His Majesty such land as he sees fit for the preservation and growth of timber." Under this power 175,000 acres have, as I have before said, been reserved, but so far as I can learn no special action has yet been taken to preserve or grow timber on these reserves. So that what is required is not only that the reserves should be increased in extent, but that they should be actively and practically administered so as to fulfil the object which is the pretext of their reservation.

It will be noted that in all this, when once the reserves are proclaimed, there is no interference whatever with the present administration of Crown lands, even that part of it which deals with exploitation of timber in forest lands that are not reserved. All the present system of sawmill leases and timber licenses may be carried out as set forth from page 31 to page 52 of the *Crown Lands Guide*. I express no opinion on that system if forest reserves are more expressly withdrawn from its operation; but only wish to make it clearly understood that the forest conservation I advocate will not in any way interfere with the revenue derived by the Lands Department from its leasing and licensing regulations.

With regard to the larger forest reserves of the State, some will have to be for general purposes, and some for special; and the locality selected for each of them will, of course, depend on its purpose. As before mentioned, good arable land is not necessary—in most cases it may be said—is not desirable. Some part of every large reserve will be found to possess such better quality of soil as may be desired for the nursery that should be attached to every reserve. Usually the larger reserves, at the time of their selection, will contain trees of several kinds, and of course these kinds will be conserved to their maturity; but in the long run it will probably be found best to select for the permanent afforestation of each reserve the cultivation of the special tree that has proved the most successful in its region. Thus, in time we shall have large regional reserves of all our most marketable kinds of eucalyptus, such as blue gum, peppermint, stringy-bark, and iron-bark; of pines, such as Huon, King William, and celery-top; and of blackwood, myrtle, and other woods. At the same time persistent efforts should be made to introduce suitable foreign timber trees for the local production of industrial woods possessing qualities that are wanting in the Tasmanian ones.

With regard to the smaller local forest reserves there will probably be in many cases but a very restricted scope for selection. Still the selection should be made, even if it involved the reafforestation of land that has been partially cleared for pastoral purposes, or has never been covered with

bush. In such cases probably the best initiatory process would be wattle planting, with or without some tree planting for permanent timber. Till the timber has grown to maturity, the wattle might be subject to a 13 or 15 year rotation for bark and firewood, and from the first rotation coming in the expenses of the reserve should be more than met. In the cases in which the reserve is already wooded, the regimen would be similar to that of the large reserves carried out on a smaller scale.

Each reserve should have an adequate staff to properly take care of it— not necessarily an expensive staff, but one suitable to the condition and extent of the reserve. But the central administration should be virtually a school of forestry. It should consist of a properly qualified conservator, and two or three more or less qualified assistants. When the system of conservation best adapted to our conditions here is duly decided upon, it should be systematically but gradually carried out in all the reserves. The system will be based upon a thorough practical knowledge of forestry in general, and of the timber trees of Tasmania in particular. Of course in the large reserves the trees will at first be there, and the conservancy will have to decide what is the best to be done with them in their present condition— that is, to make the best of them as they are, and with the view of enabling the introduction of a proper system of rotation, which is the basis of all economical forestry. Some of the timber will require a long period of rotation, probably 100 years, and the reserve will have to be divided into a corresponding number of sections or “cantons,” as they are usually called. It is evident that this cannot be done at once, for probably in all the cantons as at first defined there would be mature trees that would be spoilt if made to wait for their turn in the rotation of felling. It will be in arranging for and meeting this condition of things that the skill and discretion of the conservancy will be proved. It is not an insurmountable difficulty, and with patient perseverance it will be astonishing in what a short time a reserve will be reduced to comparative order, showing one canton in process of being cleared by the current year’s felling, last year’s canton being prepared for planting and in process of being planted, and those of previous years being watched, tended as required, and periodically thinned. This latter operation is timed to secure, if possible, a market according to the age of the thinning for hop poles, telegraph poles, fencing, mining timber, railway sleepers, piles, and wood for such like services, and if the waste cannot be sold as firewood or charcoal, it is burnt to disencumber the ground. Under this system by the time the last canton of a forest is felled, the

trees in the first will have arrived at maturity, and the market will be kept regularly supplied with timber and wood of all sorts and kinds.

The conservancy will have to settle the questions of the proper time of felling the various kinds of timber trees, the proper manner of planting, the best method of seasoning wood, including seasoning hard woods while the trees are standing as practised in the teak forests in India, the time and manner of selling the wood, the means to be taken for protecting the forests from fire, and all such details of forest conservation. The carrying out of all its duties by the conservancy will naturally train its staff to the fulfilment of theirs, so that in time they can be entrusted with the charge of the various reserves under due direction and supervision from headquarters. The varying importance of the State and local reserves will afford means of duly recognising zeal and ability by promotion. But the importance of getting a well-trained staff emphasises the necessity of securing a thoroughly capable conservator, for there cannot be good training without a good trainer. It would be the falsest economy to get an incapable or badly trained man who could only introduce or perpetuate a bad and slovenly system.

It will naturally take some time to get the conservancy into full working order, so that it can show paying results. The length of this time will very much depend upon the conservator, and the means given him to make a proper start. This can be done by at once establishing an important local reserve at headquarters. I would suggest that the area of Mount Wellington proclaimed by the Governor-in-Council of the 25th September, 1871, as a water reserve for the supply of the City of Hobart, should be also proclaimed as a forest reserve, together with all the adjacent unalienated Crown lands. That such lands are not well adapted for ordinary settlement is, I think, shown by the fact that they are not already taken up. What the area of this reserve would be I cannot say precisely, but probably such parts of it as could be conveniently held and administered, together with the water reserve, would form a forest of five or six thousand acres, quite a sufficient area for the proper instruction and development of a School of Forestry. Such a proclamation would not interfere with the water supply of Hobart, but on the contrary further protect and increase it by the re-afforestation of much of the mountain that by fires and neglect has been left bare, and led to the continuous diminution of the rainfall there. Neither should it interfere with the enjoyment of the mountain by the people of Hobart and their visitors, but greatly increase it by adding the additional charms of judicious planting, and, by careful guarding,

restrain the mischief and dirty doings of the larrikin element in our midst. On the other hand the great diversity of soil and climate to be found on the mountain with its slopes and valleys exposed to every aspect of the heavens, and shown by the wealth of its flora, point it out as eminently fitted as being the training ground of our School of Forestry. All but three of the eight woods I mentioned as the chief marketable woods of the State already grow there naturally; and the other three, with perhaps the exception of iron-bark, would probably grow if proper conditions were observed. In fact the experimental observation of what would grow, and what would not, and what conditions had to be observed, would form most useful object lessons in the course of study and practical work both with regard to native trees and to attempts to introduce European, American, and other pines and hardwoods. The scientific and technical education of the higher grades of the conservancy officers could be easily arranged for, and the results of the manual and technical training of the lower grades of forest guards should more than pay for such training when carried on so near to such a market as Hobart. But apart from this, the occupation of the mountain for this purpose would greatly add to its value in all respects, and the training could be easily and continuously supervised so as to insure an early supply of the officers required for the whole State. I am convinced that this is the best, the easiest, and the most economical method of properly inaugurating a system of forest conservancy on the State.

I need not expatiate on the necessity of taking early means of establishing this system. Forestry, like agriculture, deserves every encouragement, for like agriculture it adds, when properly carried on, to the wealth of the soil on which it is exercised by continually renewing its fertility, whereas mining, though productive of immediate large returns, permanently impoverishes the ground by taking out its wealth once for all. In a young community of course mining is encouraged, so that money may be earned, and become available in a short time. The timber treasure of the State has for the same reason been worked on the same lines as the mineral wealth—it has been allowed to be worked out without making any provision for its renewal, though such renewal is as practicable in regard to timber as it is impossible in regard to minerals. It is true that the land from which trees have been removed is sometimes improved by the removal, and fitted for other purposes; but it is rarely so in the case of land leased for saw-milling purposes, and on which felling and splitting licences are valid; for such land is usually left so encumbered with

rubbish and tree stumps and so quickly overgrown with scrub as to be more difficult and costly to clear than when in primeval forest.

It is time that a new policy in regard to this matter should be adopted, or at least that a new system should be introduced to supplement the present one. The rate at which our available forests have disappeared and are disappearing is great, and continually becoming greater. As nearly as I can estimate from the replies received to my enquiries, from 70,000,000 to 100,000,000 square feet of sawn timber are produced yearly in the State, of which about one-tenth is exported. What the quantity is of unsawn and hand-sawn timber, timber used for mining, fencing, splitting, and such like purposes, wasted by splitters and burnt by bush fires, it is almost impossible to guess, quite impossible to estimate; five or six times the quantity sawn is probably far below the real quantity. So it is quite time to arrange how we are going to supply such a consumption from our available sources—that is, from accessible sources; for there are millions of acres no more accessible at present than if they were in the moon. On the other hand, there are evident signs that if we wish to secure any important share in the markets of continental Australia, and South Africa and England, we must be ready not only with an assured supply of marketable timber, but with one of properly seasoned timber. It behoves us, therefore, to prepare for action. The best preparation we can make consists in organising measures, one of the chief of which will be forest conservation. In adopting this we may dismiss all misgiving by the knowledge of the fact that no country which has adopted it has ever regretted its adoption.