

FORESTRY: YESTERDAY, TO-DAY, AND TO-MORROW.

By SIR GEORGE I. CAMPBELL of Succoth, Bt.

STEADILY, if slowly, public opinion is awakening to the need of a forestry policy in our country. Two wars have been necessary to bring about the dawning of this recognition in the public mind, and we must surely welcome it! For of truth a healthy and progressive forestry policy is as essential to our economic welfare as is a healthy, progressive, and enlightened agricultural programme. In times of crisis, timber is as necessary to the life and fighting ability of a nation as is food, but timber requires much more space in a ship than food.

In the 1914-18 war we only partly learnt this lesson. There are signs, however, that the second war, from which we have recently emerged, has brought the lesson home to us.

It is therefore appropriate that the 'Transactions' should at this time open its pages to Forestry, for fundamentally Forestry is just another form of Agriculture, and though it requires a much longer "rotation," the forester, like the farmer, is engaged in the growing and production of a crop.

If we wish to obtain a balanced view of the position of Forestry to-day and to study its impending development, it is necessary to glance briefly at the position as it was in the years between the wars; for in that period can be placed the emergence of a definite national forest plan, which ended the *laissez-faire* unco-ordinated and undirected attitude with regard to forestry which had hitherto pertained.

While it is true to say that the experience of the first Great War marks the beginning of planned forestry, we must not omit to note that during the eighteenth and nineteenth centuries much planting was done in Scotland, and many famous forests arose to succeed the ancient native woodlands largely exploited in earlier times, of which only vestiges now remain to us. The introduction of the sheep-farming system undoubtedly hastened the end of the natural forest. The succeeding planted forests were entirely the result of private enterprise, and were it not for the enterprise and initiative of many good Scottish lairds, we should now be in a sorry position; for it is on their experience of success and failure—but mainly success—that the forester of to-day has largely founded his technique. Scotsmen, too, were prominent in

the introduction of new and exotic conifer species from overseas, and it is these species on which we to-day depend for the bulk of our softwood forest crops. There are only three conifers indigenous to Britain—the Scots Pine, the Yew, and the Juniper. To the Duke of Atholl we owe the introduction of the Larch about 1725, and from Atholl also came, nearly two centuries later, the first Hybrid, the product of a natural crossing between the European and Japanese Larch. Norway Spruce was introduced from the continent at an earlier date, and considerably later Douglas and Menzies, two adventurous Scots, brought to our forests the Douglas Fir and the Sitka Spruce from the Pacific seaboard of North America. "Sitka" has proved itself to be a particularly valuable introduction, thriving as it does on poor acid peats in areas of heavy rainfall, and enabling the forester to put to a productive and remunerative use a type of land which to all practical purposes is otherwise almost sterile.

Scottish pioneers in the creation of forests—to whom we owe so much—could not alone and without assistance stand on their own feet and stabilise an industry. Economic influences, increasing taxation, and the importation of large quantities of foreign timber at comparatively cheap rates gradually knocked the ground from under their feet, and for many years prior to 1914, except on a few large estates, private forestry operations were conducted more for the production of the timber requirements of the estate itself than as a commercial undertaking. There was also a consequential deterioration from the high standard of forest management.

One of our greatest Scottish foresters once said about the privately owned and privately created forests of Britain: "They are neglected in peace but raided in war." By "neglected" he meant that neither the Nation nor the Government, in peace, showed any interest in them, no incentive was offered for their extension, maintenance, protection or improvement, but when war supervened they were thankfully but ruthlessly exploited. The official neglect subsisted up to 1911. The raiding has twice taken place in two wars, and in point of fact, as will be shown later, from the timber point of view the woodland proprietor has twice saved his country.

In 1913 Great Britain imported 11½ million tons of timber and only produced from her own forests 500,000 tons or 7 per cent of requirements. By 1918 imports had been reduced to 2½ million tons and home production had been increased to 4½ million tons. To accomplish this enormous increase in production about 450,000 acres of our woodlands had been felled. These figures vividly illustrate how great was the "raid" on our forest reserves at that time of crisis.

In 1916 the Government, realising that a negative policy with regard to forestry could not, in the national interest, be allowed to continue after the war, and that it was necessary to increase home-grown supplies not only to replace the losses of war but as a guarantee for the future, set up a Committee, known as the Acland Committee after its Chairman, the Rt. Hon. Sir Richard

Acland, Bt., M.P. This Committee was charged with the examination of the whole timber position.

The Acland Committee produced a most comprehensive report in 1919. History has since shown that if the suggestions of the Acland Committee had been adopted in their entirety the country might have been better prepared as regards timber resources for the greater conflict which was to follow so comparatively soon. Be that as it may, this was indeed a most important turning-point in the history of British forestry, for the report of the Acland Committee impressed the Government, and in 1919 the Forestry Commission was born.

Thus, and only in 1919 and directly as a result of her experience in war, did Great Britain first acquire a State Forest Service. Not least among the nations of Europe, she alone had hitherto lacked such a service—surely a significant comment on the national disregard for an essential branch of the husbandman's art.

The Forestry Commission, though born so late, proved itself to be quite a lusty infant, if of a somewhat peculiar constitution. Its members were appointed by Royal Warrant and it was not responsible to any Minister of the Crown. Questions in either House of Parliament, with regard to its functions and operations, could only be answered by a Forestry Commissioner who was also a Member of Parliament, or by one who was also a Peer. The Commission was constituted by the Forestry Act of 1919, which also defined its powers and duties. To finance its operations a Forestry Fund, fed by Parliamentary Vote, was inaugurated. This somewhat novel constitution of an operational department of State had its advantages in the early life of the Commission, which was breaking new ground. It enabled it to get ahead without being constantly called to account, and to use a certain freedom of action which, under a more normal set-up, might not have been possible.

The Commission was charged with two main functions—the creation of State or National Forests, and the encouragement of planting on private estates. It possessed powers to purchase, feu, or lease land for the purpose of afforestation.

Lord Lovat was the first Chairman of the Commission. No better Chairman could possibly have been found; for he was indeed a leader in character as a man, an agriculturist of note, as well as a skilled amateur forester. To his inspiring leadership the Commission owes much, for he could and did take a wide and balanced view. To a large extent he was able to steer the new service clear of the shackles of Civil Service departmentalism. Lord Lovat left his mark; for even to-day, after the lapse of years, it may be said—though all may not agree—that the Forestry Commission is the most human and least hide-bound of all our Government Departments.

It was perhaps natural that in the years between the wars the Commissioners tended to concentrate their efforts more on one of their main functions than on the other. For the first time in history a definite charge had been laid on a body of Commissioners, specially appointed for that purpose, to create State forests, and

they concentrated their efforts mainly to that end. The encouragement of private planting took second place. Perhaps this was not intentional, but in fact it was so. Up to the end of 1939, 1,114,000 acres had been acquired by the Commission in the United Kingdom, of which 368,878 acres had been actually planted. In the comparatively short period of twenty years the Commission became the largest landowner in Scotland.

Grants of from £2 to £4 per acre were made by the Commission to landowners as a measure of help towards the rehabilitation of their woodlands. Under this scheme some 125,862 acres in private ownership were replanted. But this "measure" of help in the prevailing circumstances, combined as it was with facilities for technical advice—which was not always in fact available when required—proved insufficient to reinstate the war loss in the country's timber capital. The years between the wars were years of ever-increasing anxiety and uncertainty for landowners. Taxation rapidly increased, the incidence of death duties resulted in the break-up of estates, and an increasing uncertainty as to the future led to a feeling of insecurity. There was little capital to spare for planting; for afforestation, by its very nature, must always be a long-term investment. Markets for timber were poor and oncosts were ever rising. There was no assurance that even the thinnings from growing plantations, which are an essential product of sound silvicultural practice, could be disposed of without loss. In fact, there was no incentive to risk money in planting, and the grants and other services offered by the Commission, inadequate as they were in the light of the facts of the case and of the times, only attracted those few landowners who either happened to have a particular personal interest in forestry, and some money to spare, or those patriotic few who felt it their duty to plant and, in spite of the inadequacy of the inducement offered, were able to do so.

From 1930 onwards, periodic representations were made to the Commissioners by the Landowners' Organisations and the Royal Forestry Societies of both Scotland and England, urging that both more aid in the form of ancillary services and greater financial assistance should, in the national interest, be provided to the private forester. The Forest Authority, however, seemed to be preoccupied with what it considered to be its primary objective—the creation of State forests—and was insufficiently interested in the future of the private forest. Time and a second war have proved this to have been a short-sighted policy. In this connection it is interesting to note that even in 1931 the private interests in forestry were representing to the Commissioners that they foresaw the ultimate necessity of the institution of a measure of control of privately owned woodlands, if other forms of stimulation could not be provided. Here we find the germ of the "dedication" principle, which will be discussed later on in this article.

During this period the Commission had been steadily engaged in acquiring land and planting it, in the formation and stocking of forest nurseries, and in the institution of the many complementary services necessary to the functioning of a State Forest Service.

Forest schools were started, one in Scotland and one in England. Grants were made to Universities to provide for the training of Forest Officers and to other educational institutions. A programme of research was laid down and a Research Department built up. Useful technical bulletins, for the guidance of foresters in the practice of their craft, made their appearance, and the excellent system of Forest Workers' Holdings was evolved. This Forest Workers' Holdings system was a real advance. The tenant of this type of holding, an adjunct of a forest, being guaranteed a certain number of days' work per annum in the forest, is not alone dependent on his holding for his livelihood.

All this very real progress was not achieved without set-backs and grave anxieties. Governments and peoples soon forget the lessons of war. Political, economic, and financial crises beset the country. Forestry was a new child of the countryside and, like Agriculture, our oldest industry, its value was not understood by a people largely industrialised and with an urban outlook. In some quarters there was actual hostility, and it fell a ready victim to the strokes of the Geddes Axe and later restrictive measures. Great credit is due both to the Commissioners and to the over-worked but always zealous officers of the Commission that they fainted not nor failed at these set-backs, but adhered to the main plan and carried on. The main structure of the new service was not impaired, though the detailed "planning ahead," the essential *sine qua non* of forestry, was grievously upset.

In 1927 Lord Clinton, an owner of woodlands in both Devon and Kincardine, succeeded Lord Lovat as Chairman of the Forestry Commissioners, and he in turn was followed in the Chairmanship in 1929 by Sir John Stirling Maxwell, Bt., of Pollok, a man of great character and of many parts. To Scottish foresters Sir John was already well known, for he gave to British forestry the result of his private pioneering and successful experiments in the planting of recalcitrant peats on the high hill-country of Rannoch, the turf-planting technique which has enabled thousands of acres of sour wet moorland, of dwindling value for grazing purposes, to be successfully afforested. In 1932, on Sir John's resignation, Sir Roy Robinson¹ was appointed to the Chair, a position which he still occupies with great distinction.

In 1939 we were once more at war. British forests became important again. A strict control was immediately imposed. At first the greatest need was for timber to supply the mines, and many immature crops had to be ruthlessly sacrificed to the national need. A special department was set up, working at first under the Forestry Commission and latterly under the Ministry of Supply. The Home-Grown Timber Production Department, as it was named, was necessary to supplement the resources of the timber merchants, who could not expand far enough or rapidly enough to handle the enormous demand. Yet the timber merchants in the home-grown trade—whose business in peace-time was of limited scope and always somewhat precarious, owing to the

¹ Now Lord Robinson of Keldor Forest and Adelaide.

ravages of the 1914-18 war on the standing crops and the enormous bulk of cheap imports—did a wonderful job of work. The Forestry Commission's personnel was virtually split in twain on the advent of war, one half being seconded to the Timber Production Department, while the remainder carried on as best they could, with depleted staffs, with the care and maintenance of the forests planted between the wars. Soon a demand arose for heavy timber from British forests, though the urge to produce more and yet more pit-props never slackened.

In the endeavour to stimulate production and to meet the ever-increasing shortage of skilled labour, we had to call upon our Dominions and Colonies. The first to respond to the call, and before we were really sufficiently organised to receive them, were the Newfoundland contingent, followed later by emissaries from British Honduras. These contingents of various race and colour were by no means all skilled lumbermen, but the need was great and the output gradually increased.

By 1941 both Canada and Australia came to our aid. They sent units of their respective Timber Corps, who came over and worked as complete military formations under their own officers and with their own equipment.

In considering the gigantic effort made and the truly remarkable production achieved it is necessary to bear in mind two points. For reasons already outlined, the volume of available timber in the country was not as great in 1939 as it had been in 1914 when the first World War started. The wastage of that war had not been made up. Many of the forests then exploited had not been replanted. True, the Forestry Commission had in the interval afforested some 300,000 acres in nineteen years, but a nineteen-year-old wood is not old enough to produce anything more than thinnings as pit-props for the mines. The contribution from the young State forests therefore could not be great, and the heavy end of the stick once more fell on the owners of private woodlands. Once again the private owner literally saved the country. That is a fact not sufficiently recognised.

In many instances the woodland owner had to sacrifice capital, for immature woods had to be felled, and the owner only received their value, which naturally was very much less than he would ultimately have received if his investment had been allowed to run its normal course. While the Government possessed powers of compulsory acquisition, it is interesting to note that, in Scotland at any rate, these powers had seldom, if ever, to be exercised. Woodland owners responded magnificently to the call. In Scotland alone no less than 230,000 forest acres were felled to meet war demands, 385,200,000 cubic feet being produced from this acreage by all operators, departmental (Home-Grown Timber Production Department), trade (timber merchants), and the owners themselves by the labour of their own reduced staffs.

The saving to the country in shipping tons thus made available for the carriage of other vital war cargo amounted, for the United Kingdom, to no less a figure than 17½ million tons.

We can assess the effort made by looking at it from another angle. In the years immediately preceding the outbreak of war Great Britain imported some 93 per cent of its requirements in timber. Only some 7 per cent was produced from home-grown sources. In the peak war year we had stepped up our production from home sources to some 70 per cent of the total timber used, thus reducing our imports by two-thirds. We must remember, too, in considering these figures that, while we were not building many houses during the war, the Services required colossal quantities of timber, and the total consumption within the country was greater than in peace-time. Not a single ton of coal during the war period was lost for want of pit-props. As has already been mentioned, most of the pit-props, if not quite all, came from the woods of private owners.

Quite early in the war the Forestry Societies, both of Scotland and England, saw the writing on the wall. Being convinced that a much more comprehensive and vital national forest policy would be essential after the war, if private woodlands in which war exploitation had already reached alarming proportions were to be enabled to make their legitimate and necessary contribution to the future economy of the country, the Royal Scottish Forestry Society submitted its proposals to the Government. Among the suggestions then put forward the following may be noted to illustrate both what was wanting in pre-war direction and assistance and what the Society, after much careful thought, considered essential for the future well-being of forestry: "A competent Forest Authority charged with the direction of estate forestry (as distinct from State forestry) to be appointed." "All owners having on their estates woodlands over a stated minimum acreage, to register with the Forest Authority an undertaking to maintain their woodlands according to the principles of good forestry. In the event of failure to comply with this requirement the Authority to have power to take over the management of the woodlands." "The grower to be assured of a market at an economic price for the produce of his woodlands." "Grants for planting to be continued." "Maintenance grants to be made available." "Adequate steps to be taken to rid the country completely of the rabbit pest."

It will be noted that the necessity for a limited amount of control of private woodlands came from the representatives of the owners themselves. The preamble to the suggestions indeed contained a clause which pointed out that "the proposals which follow are made, not with the object of assisting the owner of private woodlands as an individual, but in the national interest."

In 1943 the Forestry Commissioners issued a report in the form of a White Paper. This White Paper, entitled "Post-War Forest Policy" (Cmd. 6447, H.M. Stationery Office, 2s.), is a comprehensive and exceedingly well-thought-out document dealing with the whole history of British forestry. It makes constructive and specific recommendations for its future conduct and administration. Target figures to cover the cost of carrying out the

programme of afforestation and rehabilitation, recommended as necessary for the safety of the country, are given.

The basic idea underlying the report, on which its arguments and recommendations are built up, is the necessity for ensuring that in any future national crisis Great Britain may not be caught out without sufficient reserves of timber to see her through. The country cannot rely a third time solely on the store of timber in privately owned woods, which alone has saved the situation in two wars. That store no longer exists. It can be readily appreciated that Great Britain can never hope to become self-supporting in timber. The island is too small, too highly industrialised, and the proportion of good land which must necessarily be retained for agricultural production is relatively high. If over a period of fifty years, however, five million acres of effective forest can be created, that area, the report argues, would ultimately provide us with 35 per cent of our requirements in timber. Such an area—the minimum necessary for national safety—would provide an assurance both against a possible shortage in world supplies and the necessity of importing timber under war conditions.

To attain the ultimate objective—five million acres of forest—the report lays down that three million acres of “bare” or hitherto non-afforested land will have to be turned over to forest crops, and two million acres will be found from the rehabilitation of existing woodlands. While five million acres in fifty years is laid down as the minimum necessary national insurance, the Commissioners suggested various alternative and graded steps, which they called the desirable and less desirable programmes. Eventually the Government decided that, while accepting the recommendation in principle, it could not commit itself immediately to the full fifty-year programme, but was prepared to accept the plan as outlined for the first five years and to provide the necessary finance therefor. The aim therefore now is that 365,000 acres should be afforested or replanted in the first five years of the plan’s operation.

Before attempting to discuss the import and effect of the important and indeed epoch-making suggestions contained in the Commissioners’ report of 1943, it is necessary briefly to outline the course of events which followed the presentation of the report, and to indicate what is meant by “dedication.” This term first saw the light in the report and is really the implementation of that degree of limited control, the probable national necessity for which, as has been recorded, had already been foreseen by the woodland owners themselves.

It is not known who is responsible for the application of the word “dedication” to its new and “forestal” use. The word first appears in its new connotation in para. 271 of the 1943 report, which reads as follows: “We begin with the principle that woodland which is required for timber production be ‘dedicated’ to that specific purpose and that woodland owners who so ‘dedicate’ their land, and also provide adequate assurances for subsequent good management, should receive State assistance.”

There are four main principles inherent in the act of dedication :—

- (1) The land to be dedicated must be used in all time coming for the production of timber.
- (2) The work to be done on the dedicated land and the forest crop to be grown thereon must be in accordance with an approved plan.
- (3) Skilled supervision must be employed.
- (4) Adequate accounts must be kept.

In return for the above undertakings, which, it will be observed, place a continuing burden which runs and passes with the land, binding heirs and successors equally with the purchasers if the land be sold, and thus possibly affecting its market value, certain grants will be payable by the State.

It is, of course, a fundamental principle of dedication that all owners of suitable woodlands be given the option to dedicate. Should they elect not to do so, however, their woodlands may be acquired by the State. The term "acquisition" has been defined as lease, feu, or purchase, the underlying and agreed motive being that the country can no longer afford the risk that forest land might remain sterile and unproductive.

In the late summer and autumn of 1943 appointed delegates of the Landowners' Organisations and of the Royal Forestry Societies of Scotland and England held several conferences with the Forestry Commissioners in London at their invitation. At these conferences the "principle" of dedication itself was never once disputed. It was accepted as being that "measure of control" which in the national interest was necessary and appropriate. But much and prolonged discussion did take place both on the exact definition of the "act of dedication," the amount and form of the assistance to be granted in return for dedication, the penalties for non-dedication, and on many and various matters connected with and arising from the new principle.

Resulting from these discussions the Forestry Commissioners issued their Supplementary Report (Cmd. 6500) as a White Paper in January 1944. This Supplementary Report details the adjustments made at the various preceding conferences, but it remains silent on other points raised by the delegates on which discussion was desired but not encouraged. Chief among these other points, on which the delegates desired to offer suggestions, was the all-important question of the form and manner by which forestry in Great Britain could most suitably, sympathetically, and efficiently be governed and administered in the future, both as regards State and estate woodlands. The disinclination on the part of the Commissioners to discuss constructive proposals of this nature led to the preparation and wide circulation in 1944, jointly by the Royal Scottish and Royal English Forestry Societies, of a carefully considered and documented pamphlet—which amounted in scope to an unofficial White Paper—entitled "Post-War Forestry: a Report on Forestry Policy." This pamphlet covered the whole

ground and, subdivided into eighteen sections, dealt historically and constructively with every aspect of the forestry problem. It was, in fact—as its modest foreword stated—“A contribution to an aspect of national policy which has assumed outstanding importance.” It was the answer of the private forestry interests to the Commissioners' report of 1943, and as such it assumed considerable importance. Through its medium the private interests in forestry, without whose willing co-operation a successful forest policy is impossible in our country, stated their case.

The next event in the historical sequence was the passing of the Forestry Act of 1945. This was purely a “Machinery Act,” reconstituting the Forestry Commission and placing the direction of forestry policy, for the first time, under direct Ministerial responsibility. The national necessity of a vital forest policy, having at long last been recognised, it was generally accepted that the time had come when its importance warranted Ministerial direction and control. Forestry was, therefore, by the Act of 1945, placed in Scotland under the Secretary of State, and in England under the Minister of Agriculture. The Forestry Commissioners, however, remain as before, appointed directly by Royal Warrant, an operative body charged with the execution of forest policy. This Act, in short, created the administrative, executive, and operative machinery without which the Government's post-war policy for forestry could not be put into effect. It did not put that policy into effect.

Consequent on the institution of Ministerial direction of forestry, certain adjustments in the qualifications for the appointment of Commissioners became necessary, Members of Parliament being no longer eligible. The form of the future administrative “set up” for forestry also took shape under the Act, and several Government and private motions on forestry were keenly debated in both Houses of Parliament. The present “set up” can be compared with the suggestions put forward by the Royal Forestry Societies as outlined earlier in this article. An entirely separate department of the Forest Authority, charged with the direction and assistance of private forestry—distinct from the State forestry programme—has not been achieved, but the new administrative scheme provides for devolution as between the three countries constituting the United Kingdom. National Committees for Scotland, England, and Wales respectively have been set up, on which serve, in addition to the Commissioners representing those countries, three members with special knowledge of matters which bear upon Forestry, such as Labour problems and Agriculture. The National Committees are supported by Regional Advisory Committees, similarly representative in their personnel of varying interests, acting in each of the conservancies into which the country has been divided. In each conservancy the conservator is responsible for the proper conduct of forestry, both State and private, but he is assisted by staff officers on both sides—*i.e.*, officers responsible to him for the conduct of State forestry in the conservancy and others responsible for private forestry and assistance and advice thereto. On the flexibility of this arrangement and the human understanding of

the particular officers concerned in the peculiar problems which beset the private woodland owner, largely depends the success of the new administrative scheme. So far the omens are distinctly good, but future and enduring success is dependent as much on the personality of the official as on the scheme itself. At Commission level we now have the Director General of Forestry, who, until recently, has also acted as Chairman of the Commissioners, with a Deputy Director General, these high officials acting through Directors of Forestry in Scotland, England, and Wales. In March 1947 Sir Roy Robinson gave up the office of Director General, retaining his original position as Chairman of the Commissioners.

The resultant effect of the new administrative organisation, of particular interest to farmers, is that no land can in future suffer a change of use from agriculture to forestry without the approval and consent of the Secretary of State in Scotland or the Minister of Agriculture in England, acting in their dual capacities as Ministers of both agriculture and forestry. In practice, even before the Minister's approval became statutory by the Act of 1945, in Scotland at least, the Secretary of State's approval was sought by the Commissioners when acquiring land for afforestation purposes, though his consent to acquisition was not then essential. This fact does not appear to have been generally realised by the farming community.

By the passing of the Act of 1945 the stage was set and the broad outline of things to come took shape. Before, however, the principle of dedication could become a reality and not merely a principle, further legislation was necessary to give legal effect to certain aspects of that principle. In Scotland it was found necessary to provide legal right to an owner of woodlands proposing to dedicate to burden not only himself but his heirs and successors with the obligations inherent in dedication. A further short Bill—the Forestry Act, 1946—was therefore introduced to deal with this and other relevant points. This Bill only received the Royal Assent towards the end of March of this year. The increasing interest in forestry was again manifested during the passage of the Bill through Parliament by the keenness of the debates in both Houses.

It may be of interest to indicate briefly the forms and amount of assistance which the State is now prepared to extend to the landowner who elects to dedicate his woodlands. As has already been remarked, if an owner of woodlands which are considered to be suitable for dedication does not elect to enter into a Deed of Agreement to dedicate, he runs the risk of having the control of his forest areas removed from him. Owners of woodlands too small in extent to be suitable for dedication, but potentially capable of producing timber of commercial value, are eligible to receive planting grants without the obligation of dedication. This arrangement should prove an incentive to owner-occupier farmers on whose properties there is often to be found small areas of woodland, usually sadly neglected. A good farmer, proud of his ability to produce good crops from his land, should wish also to produce

good timber on any woodland he may happen to possess. In future, such small areas will attract a planting grant of £10 per acre, and technical advice and assistance will be given by Commission officers.

The owners of all estates on which there is an appreciable area of woodland, or land which has recently carried a timber crop, will be afforded the opportunity to dedicate their woodlands under one or other of the schemes known as Basis 1 and Basis 2.

If he elects to proceed under Basis 1, the Forestry Commission will repay to him 25 per cent of the approved net annual expenditure incurred by him in the planting and silvicultural maintenance of his dedicated area, according to the provisions laid down by the approved plan, until such time as his woodlands become profit-earning. This scheme has come to be known as the 25 per cent Deficiency Scheme.

If, on the other hand, the woodland owner prefers to proceed under Basis 2 he will receive £10 per acre for every acre planted in accordance with the approved plan, a maintenance grant of 3s. 4d. per acre per annum for fifteen years on every acre dedicated and thereafter planted and properly maintained, plus a grant per acre of the same amount, and, also for fifteen years, on all productive woodlands other than new plantations. Both the rates of planting and maintenance grants are subject to review after five years, in the light of ascertained costs. In addition, and under either Basis 1 or 2, loans can be secured, if desired, on a long-term basis at 3 per cent, repayment being by equal instalments annually.

In return for the assistance to be afforded to the dedicating owner under either Basis, the owner must, of course, undertake to work to an approved plan. This plan sets out in some detail the essential silvicultural operations to be performed by him in each successive year. Such operations include planting, thinning, and felling. In addition to the essential operations, as laid down in the plan, the owner must ensure that all other cultural and maintenance work necessary to ensure the health of his forest crop is performed in accordance with the rules of good silviculture.

As originally conceived and as set forth in the White Paper of 1943, the financial provisions under the Dedication Scheme did not go beyond Basis 1 or the 25 per cent Deficiency Scheme. It was on the direct representation of the owners' representatives, in conference with the Commissioners, that the Planting plus Maintenance Grants Scheme was eventually accepted as an alternative. The amount of the respective grants at that time offered and accepted in principle only by the owners, as they were not considered sufficiently ample to attract dedication, were for planting £7, 10s. per acre and for maintenance 2s. 6d. per acre. The rise in wage rates and the all-round increase in oncosts and overheads since that date have been reflected in an increase in the grants, which are now £10 and 3s. 4d. respectively.

Generally, and as far as can be ascertained at present, the woodland owners of Scotland accept the principle of dedication. They agree that the necessity of the case demands that timber-

producing areas on their estates must, after the devastation of war, be planted and maintained. That is necessary in the interests of the country. They would rather do this work themselves as free agents and without any form of restriction or control, but in most cases that is not economically possible. It is too early yet to anticipate results. The scheme, in fact, has hardly started, and the exact form of the Deed of Agreement to dedicate is as yet unknown. Every owner of woodlands other than the proprietor of a small wood will, in due course, receive an invitation to dedicate. It is certainly to be hoped that the majority will respond.

Nevertheless, there are certain considerations which make a decision difficult: considerations which, while they directly affect dedication, are yet outside the agreed principle. The incidence of taxation, the lack of housing for foresters, and the apparent unwillingness of the Government to facilitate the building of new houses or the improvement of old can be mentioned. Here the position is analogous to that in agriculture. If you do not possess the houses required to accommodate the staff necessary to carry out the approved plan, and you cannot build new houses, how can you enter into a Dedication Agreement? There is also to-day an enormous shortage of young forest trees. But the most important consideration is that of price, more especially the price obtainable for the intermediate product rather than that obtainable for the final crop. By "intermediate product" is meant the thinnings, in the form of smaller and larger poles, which must, from time to time in the life-history of the plantation, be removed if the final crop of mature trees is to reach its due proportion in volume—in other words, if the wood is to produce a good crop. These thinning operations are a necessary process in the practice of sound silviculture, and being so it is reasonable to assume that the product should command a price which at least covers the cost of removal, conversion, and transport to the consumer, plus a small profit. The position in 1917 is that the price obtainable for home-grown pit-props—and mining timber is the usual outlet for the intermediate products in forestry—is at least 75 per cent below the cost to the country of the imported article of similar grade. Price has always been the bugbear of the British timber growers. In the writer's opinion, price is the crucial factor, and on price ultimately depends the success or failure of British forests, at least so far as the private forests are concerned. Mature timber, if well grown and of good quality, will always command a reasonable figure. It is the price of the intermediate but inescapable product in the process of growing good timber which may adversely affect the issue of dedication. The farmer has been successful in achieving guaranteed prices for his production, adjusted periodically to such level as will show a reasonable profit in relation to the costs of production. The forester, on the other hand, worked right through the war on a price schedule fixed by agreement at a level only very slightly higher than the prices—which in any case were barely economic—ruling before the war. It was only at the beginning of this year that, after protracted negotiations, a slight increase in

the war-time price schedule was achieved. That increase, however, is not commensurate with the general increase in wages, overheads, and costs payable to-day. The argument that the woodland owner should be content under dedication to accept a price for his thinnings which does not compensate him adequately for his costs in felling and marketing—an operation which he is bound to perform under the approved plan—because he receives a planting grant is scarcely logical or equitable, having regard to the extreme shortage and the clamant demand for the material he is under agreement to produce. An agricultural analogy is the Ploughing Grant.

To make the picture complete to date, and in an endeavour to sketch the outline of the future, it is necessary to dwell shortly on the controversial—especially to agriculturists—subject of the three million acres of bare land which must ultimately be turned over to timber production to complete the five-million-acre programme which has now been accepted in principle.

This is an aspect of "the to-morrow" of forestry which it is necessary to approach without bias—an exceedingly difficult line of approach, it is admitted, more especially for the hill farmer. But it is necessary, whatever one's particular interest may be, to take a balanced and impartial view. It seems to the writer that there are two fundamental considerations which must be given due weight in a rational approach to this problem. These basic considerations are: (1) the proved necessity of increasing the national timber stock, and (2) the effect of an increased afforestation programme on population. The first consideration we must admit as proved. Two wars have provided the proof, and the Forestry Commissioners' recommendations in their report of 1943 are built up on a proved case. All that has followed has been consequential on proof. The country has decided—and rightly decided—that it must provide itself with more timber by growing it. Land has therefore to be found to provide for that growth.

It is here that the second basic consideration, that of population, comes in, being incidental to an increased area under trees, and of the utmost importance to the country as a whole, because it is the upland areas of the country that are most suited to, and most capable of, a heavy production of coniferous timber. It is coniferous timber or softwoods that the country most needs. The change of use of hill land from the breeding of sheep and a few cattle to the growing of a crop of trees immediately calls for increased man-power, not only for the period of planting and establishing the forest crop, but right through the rotation. Gradually, as the forest areas increase up to the target of acreage set, so will the necessary workers become anchored to the land in healthy surroundings and with a man's job to do. The ratio of man-power required as between hill farming and forestry used to be given as one man per 1000 acres for farming, and one man per 100 acres for forestry. The rate of growth in many of our woodlands, especially in the West Highlands, is, however, proving to be so rapid and the necessity for early and often repeated thinnings so clamant that experienced

foresters in these areas are already convinced that at least two men per 100 acres will be required to ensure the proper silvicultural management of the crop, apart from the exploitation thereof.

Gradual but progressive depopulation of the Highlands has been going on for roughly two centuries, and more recently our attention has been drawn to a similar attack of creeping paralysis in the hill country of the Borders. Fundamentally, any particular type of countryside can only support economically a population in direct relation numerically to the quality and productive capacity of the land which it contains. When the native population of that countryside finds that it cannot sustain the standard of life demanded by those who live and work in a richer and more productive area, or in one where industries only indirectly connected with the land provide employment, that population drifts off, first probably to a richer agricultural area, but eventually to the great cities. That is what has happened in the Highlands and is happening to-day in the Borders. The introduction of the Sheep Walk system of farming into the Highlands failed to arrest depopulation. The forests created between the wars are already stabilising the drift away from home of the native population, by providing healthy work at or near home. There is ample evidence of this. These forests are reaching, or have reached, the stage of intermediate production, and more labour than is presently available in the remote areas is already required. The difficulty to-day is the provision of houses to accommodate the necessary staff. In areas afforested, or in process of being afforested, the population pendulum is beginning to swing in the right direction. It has been static or swinging the wrong way for centuries. The first sod of the first forest village was recently cut in Dumfriesshire. That is an important and significant fact.

The diversion of land from stock-raising to timber production naturally involves a certain loss in the national output of food and wool, and this induces adverse comment and sometimes heated controversy. There is a yardstick, however, by which we should assess any particular case, and that yardstick is productivity and population.

Timber is as necessary to the nation's economy and well-being as is food. Timber costs more and takes more shipping space to carry across the oceans of the world to our shores than does an equal value of material in the form of food. We possess, especially in Scotland, upland areas of large extent, the capacity of which for the production of food is low and in many cases diminishing. These same areas are capable of a remarkably high production in timber. Under agriculture these areas employ few men. Under a forest crop production per acre, in terms of value to the nation, is greater and the number of men required to ensure that production is considerably more.

It is true that in the inter-war period adverse criticism was aroused, probably justly, by the diversion from farming to forestry of very large areas of land in single blocks. It is equally true that in forestry large blocks of land can be managed more economically

than a number of smaller and possibly scattered areas. The ideal at which we should aim and which should be possible of achievement, now that the same Minister of the Crown is responsible both for agriculture and forestry, is the proper and natural integration of both farming and forestry on a given area of land—the use of each particular piece of land for the purpose for which it is naturally most fitted.

In considering this question of the proper use of land, the statement is often rather wildly made that only those areas incapable of supporting a sheep stock, with special emphasis on deer forests, should be used for growing trees. Perhaps it is necessary to point out that a commercial crop of timber cannot be grown on just any old land! Altitude and exposure, as well as soil conditions, are limiting factors to the successful growth of a forest crop. One more point deserves notice. When the forests become productive many industries depending on the use of timber and its by-products will grow up. Here again the population aspect ultimately will be affected. It has been reckoned that five million established acres of forest will require 50,000 men for their cultivation, exploitation and management, and 200,000 men will become engaged in industries dependent on and ancillary to the use and conversion of the timber crop. If this estimate of eventual employment in forestry and industries contingent on forestry is correct, and our Government holds without deviation to the plan which the nation has approved, at the same time appreciating with sympathy and adequate encouragement the part in that plan allotted to the owner of private woodlands, then indeed we may look ahead with hope to the future. Not only will we thus ensure to ourselves, for the first time in history, that reserve of an essential product of the soil which we must have, but in the process of achieving that assurance we will, in part at least, resolve the pressing and hitherto insoluble problem of rural depopulation.