

Fifty-First Annual
Report and Accounts of the
Forestry Commission
for the year ended 31st March 1971
together with the
Comptroller and Auditor General's Report
on the Accounts

*Presented to Parliament in pursuance of Section 45 of the
Forestry Act 1967 and Section 5 of the Exchequer and
Audit Departments Act, 1921*

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FORESTRY COMMISSION,
25, SAVILE ROW,
LONDON, W1X 2AY
22nd November, 1971

To:

THE MINISTER OF AGRICULTURE, FISHERIES AND FOOD
THE SECRETARY OF STATE FOR SCOTLAND
THE SECRETARY OF STATE FOR WALES

GENTLEMEN,

In pursuance of Section 45 of the Forestry Act 1967, I have the honour to transmit the 51st Annual Report of the Forestry Commissioners which covers the year ended 31st March 1971.

I am, Gentlemen,
Your obedient Servant,
(Sgd.) TAYLOR OF GRYFE
Chairman

THE FORESTRY COMMISSIONERS

at 31st March 1971

Lord Taylor of Gryfe, *Chairman.*

Mr. J. A. Dickson, C.B., LL.D., *Deputy Chairman and Director General.*

Lord Balfour of Burleigh.*

Mr. E. Gwynfryn Davies, C.B.E., J.P.

Dr. F. C. Hummel.

Mr. P. Nicholls.

Mr. G. G. Stewart, M. C.

Major Sir William Strang Steel, Bt., D.L.

Mr. R. B. Verney, D.L., J.P.

Mr. H. J. Watkins.

Secretary: Mr. J. J. V. Summers.

Director (Management Services): Mr. D. R. Johnston.

Senior Officer for Scotland: Mr. J. E. James.

Senior Officer for Wales: Mr. J. W. L. Zehetmayr.

Director (Research): Mr. G. D. Holmes.

Controller of Finance: Mr. W. M. Cormack.

CONSERVATORS

England

North West: Mr. J. S. R. Chard, O.B.E.
North East: Mr. G. E. Godwin.
East: Mr. G. W. Backhouse.
New Forest and South East: Mr. D. A. Mithen.
South West and Dean Forest: Mr. G. D. Rouse.

Scotland

North: Mr. R. A. Innes.
East: Mr. E. G. Richards, M.C.
South: Mr. J. E. James.
West: Mr. E. J. M. Davies.

Wales

North: Mr. J. H. James.
South: Mr. J. W. L. Zehetmayr.

* Lord Balfour was appointed on 1st June, 1971.

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ACKNOWLEDGMENTS

Numbered photographs and all maps are drawn from the Commission's official collection. Plate 1 is by A. Rowan, Plate 3 by Roy Harris, and Plate 4 by V. Blankenburgs.

THE COMMISSIONERS' FIFTY-FIRST ANNUAL REPORT: 1970/71

COMMISSIONERS

1. Lord Balfour of Burleigh was appointed a part-time Forestry Commissioner on 1st June, 1971 to fill the vacancy created by the appointment of Lord Taylor of Gryfe as Chairman of the Commission. Lord Balfour has interests in commerce and industry and is a Director of the Bank of Scotland and of the British Linen Bank. He is a Chartered Electrical Engineer and a Fellow of the Institution of Electrical Engineers.

OBITUARY

2. The Commissioners noted with regret the death in March 1971, of Professor John Walton, Regius Professor of Botany at Glasgow University until 1962 and a part-time Forestry Commissioner from 1949 to 1954.

POLICY

Review of Forestry Policy

3. On 8th December, 1970, the Parliamentary Secretary, Ministry of Agriculture, Fisheries and Food, announced that the forestry Ministers were to review various aspects of forestry policy, including the return on the public money invested in forestry. It was subsequently announced that the review, which would include cost-benefit studies, would relate to both the public and private sectors.

4. The Commissioners welcome this review which should result in clarification of their own terms of reference and the role of private forestry.

5. It is not always recognised by the public that the Commission is not an independent body. It is no more and no less than an instrument of Government policy, like any other Department of the Crown, and as such it looks to its three Ministers for its instructions on its major objectives and the size of its programme. The policy review is therefore of paramount importance to the future of the Commission.

Legislation

6. In exercise of their powers under Section 46 of the Forestry Act 1967 and after consultation with the Verderers, the Commissioners made up-to-date byelaws for land under their management in the New Forest. These byelaws (Statutory Instrument 1970 No. 1068) came into force on 27th July, 1970 and replaced the former byelaws made in 1968.

7. Hitherto Commission byelaws have been made only for specific areas and forests, such as Forest Parks and arboreta. Standard byelaws for all forests and lands in the Commission's management not already covered by byelaws were prepared during the year and came into force on 1st July, 1971

(Statutory Instrument 1971 No. 997). The byelaws will help to protect the Commission's woodlands and to safeguard the public's enjoyment of them.

8. A Bill (subsequently enacted as the Wild Creatures and Forest Laws Act 1971) was before Parliament during the year under report. The purpose of this legislation was primarily to repeal certain obsolete and long inoperative provisions of the ancient forest laws of England and Wales.

Recreation

9. Public demand for countryside recreation is increasing rapidly and the Commission is in a unique position to meet this demand. The Commission is the largest landholder in Great Britain; its forests are distributed widely throughout the country and they have a greater capacity for absorbing recreation without impairing the environment than other forms of land use. Moreover, the Commission's staff are highly trained and have long experience in many forms of land management. Increasing interest in the whole subject suggested that the time had come for a full definition of the Commission's policy and the Chairman therefore called a Press Conference to explain it publicly shortly after the end of the year under report. The text of the statement issued on that occasion is at Appendix II of this Report, page 40.

10. The Commission's policy will be broadly to develop the unique recreational features and potential of its forests, particularly where they are readily accessible to large numbers of visitors from the major cities and holiday centres. This will be done in conformity with the Commission's statutory powers and obligations and consistently with its primary objective of timber production. The Commission will retain full control of recreational development so that it may be co-ordinated with other management objectives. The Commission will also ensure that such development does not damage the forest environment or conflict with its conservation.

11. The Commissioners were greatly encouraged by the public response to their statement which emphasised that forestry and recreation are not in opposition but can be complementary to each other. If further evidence of this were needed, it is provided by the millions who visit the Commission's forests throughout Great Britain every year.

The New Forest

12. It became evident during the year that regular and wider arrangements for consultation with local opinion were needed for a better mutual understanding between the public and the Commission in the New Forest.

13. The Commissioners therefore decided, with the approval of the Minister of Agriculture and after consulting the Verderers, to set up a Committee—to be known as the New Forest Consultative Panel—to serve as a sounding board for local public opinion on the factors which need to be taken into account in their management of the Forest. The Commissioners decided that this body should be as widely representative as possible of all the local organisations and interests concerned and that it should have an independent

Chairman with local connections. They subsequently appointed Sir Dudley Forwood as Chairman.

14. The Minister of Agriculture, following a visit to the New Forest to see the problems of management at first hand, and subsequent consultation with the Commission, announced on 3rd May, 1971 a new mandate for the management of the New Forest in the following terms:

“The Minister believes that, with the passage of time, the balance between commercial timber production and conservation and amenity needs to be considered afresh in the light of the current state of public opinion towards the conservation of amenity. He considers further that it would contribute to public understanding of the Commission’s management policies in the New Forest if he were to give them a clear and specific mandate as to the principles to be followed.

The principles which the Minister considers appropriate are as follows:—

1. The New Forest must be regarded as a national heritage and priority given to the conservation of its traditional character.
2. In pursuance of this:—
 - (a) the Ancient and Ornamental Woodlands should, as heretofore, be conserved without regard to timber production objectives, felling being kept to the minimum necessary to promote effective regeneration and limited to single trees or clumps of trees; consideration should be given to the possibility that one or more areas might, on an experimental basis and in consultation with the Nature Conservancy, be totally enclosed and protected against all forms of human interference;
 - (b) in the Timber Inclosures
 - (i) the present overall balance between hardwoods and softwoods will at least be maintained;
 - (ii) no more hardwoods will be felled to make way for softwoods except to a limited degree where soil conditions are unsuitable for the growth of hardwoods;
 - (iii) the hardwood areas should be managed with greater emphasis on amenity, i.e. on a greatly lengthened rotation of *at least* 200 years with felling limited to single trees or small groups in areas not exceeding about one acre;
 - (iv) subject to the overriding proviso in subparagraphs (i) and (ii) above, which imply some flexibility in the conversion of softwood areas (and vice versa), further planting of softwoods should be limited to areas which
 - (a) have already been felled or otherwise prepared for this purpose; or
 - (b) are already planted with softwoods.

These provisions will be the subject of a comprehensive review by the Commission, the Verderers and the Consultative Panel not later than the end of 1981.

There will be full consultation with the Consultative Panel on the annual programme of work in the implementation of these principles.”

The Commissioners are glad to implement this new mandate, which has been received with satisfaction by the Verderers, the Consultative Panel and the general public.

15. In order to emphasise their special interest in the New Forest, the Commissioners appointed a new Deputy Surveyor with sole responsibility for the Forest, who reports to them direct on matters of policy.

16. The Commissioners are confident that these developments will assure the future of the New Forest as a living entity with the distinctive character for which it is nationally and locally valued. The principles of its conservation were admirably illustrated to a wide audience during the year in the BBC's film entitled "The Living Forest" which merited the highest commendation.

FORESTRY ENTERPRISE

Planting

17. The Commission pressed forward vigorously with the expansion of the productive forest area, on which the long-term prospects of large industries which use home-grown timber so vitally depend.

18. The area of new planting was 57,735 acres which represents a considerable achievement in terms of planning and sustained effort in the field. The organisation of planting on this scale is a major operation spread over several years, from the first patient negotiations for the acquisition of the land to the final tread of the planter's boot. The production and distribution of plants by the million and the preparation and ploughing of large areas on terrain which is seldom easy is a challenge which the Commission's staff meets annually and to which no mere statistics can do full justice.

19. The total area of new planting was distributed as follows:—

	<i>Acres</i>
England	7,515
Scotland	44,062
Wales	6,158
	<hr/>
Total	57,735
	<hr/>

In addition 12,753 acres were restocked. The North Scotland Conservancy (14,112 acres) and the South Scotland Conservancy (13,729 acres) again accounted for over 45% of the total area of new planting.

20. In comparison with the previous year, new planting increased by just over 12,000 acres, the bulk of the increase (9,170 acres) being in Scotland. This comparison is however governed and to some extent blurred by accidents of weather since the new statistical year (ending on 31st March) does not coincide with a single natural planting season. Thus when, as in the year under report, a late spring in 1970 was followed by an early spring in 1971 more planting is possible than in a normal year.

21. A total of 77 million trees were planted in the year. Most use has been made of Sitka spruce (44 million) which is the species best adapted to the conditions prevailing in the areas of new planting in Scotland. Pines, especially lodgepole pine (15 million), were also planted extensively. With the bulk of the planting taking place in Scotland and the uplands of Northern England and Wales, the opportunity to use hardwoods for amenity's sake is very restricted by soil conditions; but the Commissioners, conscious of the role which their forests play in the character of the countryside, plant substantial areas of the one deciduous conifer larch (3½ million trees) and introduce many other species of conifer such as Silver fir, Western hemlock, Red cedar (4½ million trees), in order to bring a variety of shades of green to their forests. These species will generally yield a lower return than Sitka spruce, but amenity considerations are of such importance that they outweigh the commercial loss entailed. Beech was the most commonly used broadleaved species (280,000) with the balance made up of oak, and some sycamore, elms, maple, chestnut and ash.

22. An interesting technical development which began to have practical use during the year was the introduction of unconventional methods of raising tree seedlings. There are several systems, all based on the idea of growing seedlings in individual containers. In one of the most promising developments, seed is sown in plastic tubes about 3 inches long and ½ an inch in diameter, using special compost and under controlled greenhouse conditions. By this method seedlings (known colloquially as "tublings") can be brought on to planting size in roughly nine weeks and three crops in a season are possible. In the light of current knowledge these plants can only be used on peatland, but a significant proportion of forest trees is likely to be raised in this manner in the future.

Tree Seed

23. The home crop of conifer seed was generally moderate, although nearly 1,760 lb was collected, but Scots pine (242 lb), Sitka spruce (440 lb) and Hybrid larch (550 lb), gave the largest collection of these species for some years. The total collection of hardwood seed was 6,600 lb, of which the main crop was Sessile oak, with 6,314 lb from South West England.

24. Imports of conifer seed totalled 8,096 lb of which the greater part was Sitka spruce (5,632 lb) followed by the Grand and Noble firs (748 lb), Japanese larch (594 lb) and Norway spruce (550 lb). Imports of hardwood seed totalled 484 lb, including 440 lb of red oak.

25. Full details of tree and seed procurement and distribution are published in the Report on Forest Research (see paragraph 97).

Acquisition of Land

26. The total area of plantable land acquired was nearly 53,000 acres, the highest since 1960. Of this total nearly 48,000 acres (about twice the previous year's figure) were acquired in Scotland. Acquisitions fell in England from 5,870 acres to about 2,000 acres (all in the northern counties), and less steeply in Wales, from 3,700 acres to just over 3,000 acres. In the North Scotland Conservancy acquisitions for new planting leapt spectacularly from

about 1,000 acres to about 11,000 acres although most of this area was acquired in one forest in Strath Oyckell. The largest area acquired was again in the South Scotland Conservancy, to which 25,000 acres were added for new planting.

27. The overall average cost of plantable land remained stable at £19.24 per acre, ranging from an average of £9.70 per acre in North Scotland to an average of £28.17 per acre in South Wales.

Harvesting and Marketing

28. The volume of timber felled in the Commission's forests in the year was 1.57 million cubic metres (44 million hoppus feet).

29. The results of the year's working may be summarised as follows:—

	1969/70	1970/71
		million cubic metres
TOTAL PRODUCTION	1.53	1.57
Softwood	1.44	1.49
Hardwoods	0.09	0.08
SOLD STANDING	0.68	0.68
Softwoods	0.62	0.63
Hardwoods	0.06	0.05
FELLED BY COMMISSION	0.85	0.89
Softwoods	0.82	0.86
Hardwoods	0.03	0.03
<hr/>		
TOTAL INCOME (after allowing for stock changes)	5,853	£'000 6,851
DIRECT EXPENDITURE ON HARVESTING (excluding overheads)	3,001	3,252
SURPLUS ON HARVESTING	2,852	3,559
<hr/>		
INCOME per cubic metre	£3.83	4.36
EXPENDITURE per cubic metre	£1.96	2.07
SURPLUS per cubic metre (excluding overheads)	£1.87	2.29

30. The whole volume scheduled for felling was successfully sold although in the course of the year the uncertainty of trading conditions and an apparent shortage of liquidity exerted a modifying influence on buyers of some classes of produce. Prices continued to rise, although less sharply than during the previous year. Most selling by the Commission is done a year or more forward, and indications for the next year are that prices will continue to rise generally, although there may be some levelling off compared with the year under review.

31. The average prices obtained for softwood standing trees rose by 16%. The Price Index for Conifers in England and Wales (1967 = 100) rose

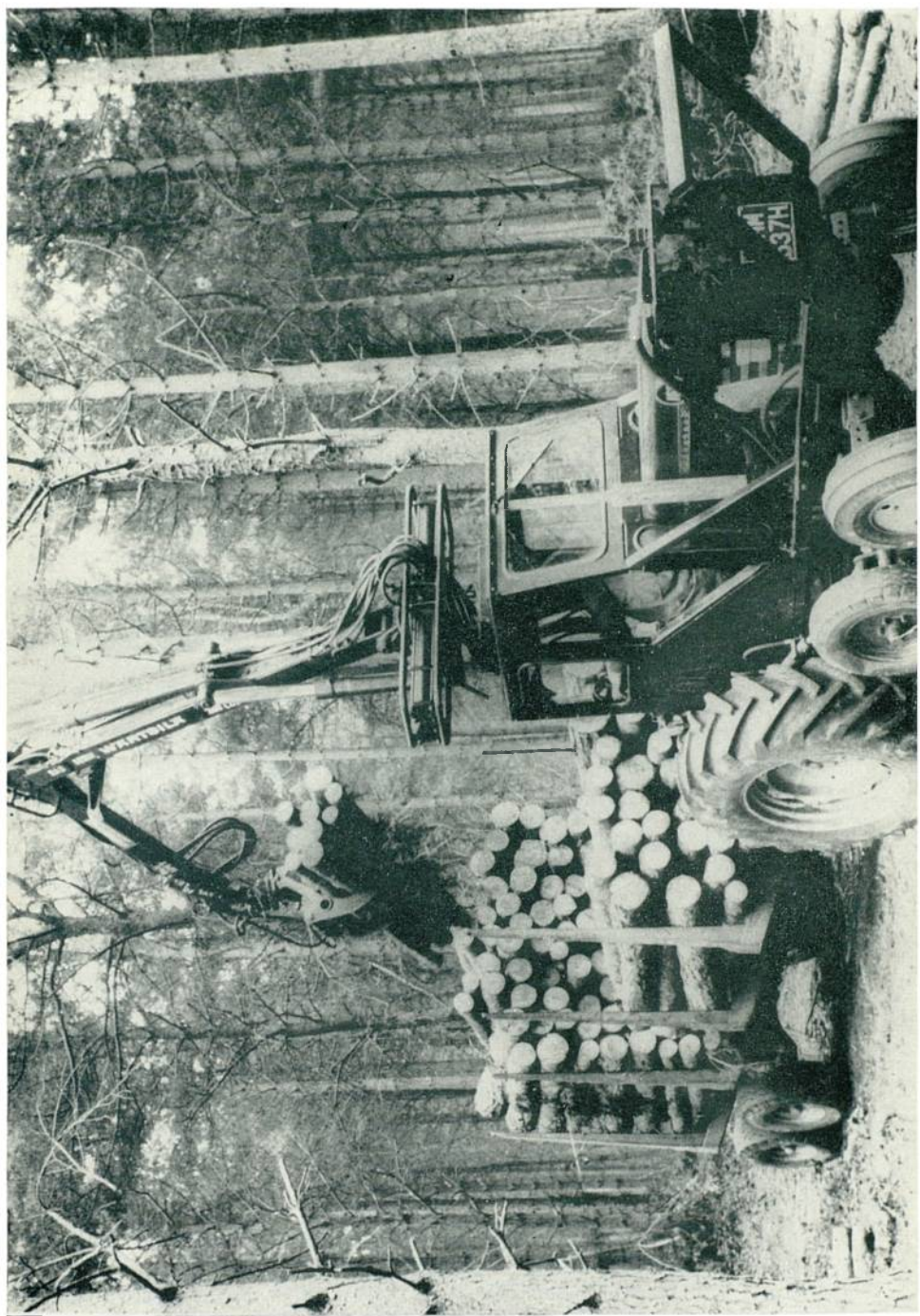


PLATE 1. A shortwood forwarder extracting timber in Thetford Forest, East Anglia. Machines of this type are highly efficient in moving logs at low cost.

from 111.2 at the beginning of the year to 131.2 at the end, while that for Scotland fell slightly from 138.4 to 137.8. The movement in these indices cannot be directly compared with the general increase as they omit certain size classes.

32. Because of the relative immaturity of much of the forest crop, pulpwood for the paper and board industry is the largest single outlet for timber felled by the Commission. The industry has encountered serious problems as the result of price movements in the world markets of pulp and paper. Fortunately, owing to the vertical integration of pulp and paper manufacture in this country, price movements in world markets have had only a limited effect on home pulpwood consumption. The longer term outlook for timber producers in this field is good, limited only by the availability of wood which can be produced by the forests economically and at rates which can be sustained over a long period.

33. Sales of pitwood to the National Coal Board were slightly increased and have now been placed on a more secure long-term footing by the conclusion of a 3-year contract, which will assist in the better planning of production.

34. The chipboard industry has undergone changes in structure resulting in the closure of mills, including one which used substantial quantities of home-grown roundwood. Although the changes did not materially affect the total amount of roundwood taken by the industry in the year there were regional difficulties resulting in adverse effects on the value of some standing sales. The immediate outlook is of a lowered demand for roundwood for chipboard manufacture.

35. The demand for logs by sawmillers has remained strong and prices rose by 16% on average. The policy of offering sawmillers longer-term contracts to assist in the development of sawmilling has proved popular and has contributed to the rationalisation and modernisation of the industry. This movement appears to be gaining impetus and will have important consequences for the future of home forestry.

36. Harvesting costs in the Commission showed some local rises as a result of increases in wages, fuel, and other operating expenses. The effect of these increases was kept to a minimum and contained, in large measure, by the continuing increase in productivity brought about by training and improved techniques. This is reflected in the results shown in paragraph 29.

37. A census of harvesting equipment and methods used in Commission forests was carried out in 1969, concurrently with a comparable sample census in private forests by the Timber Growers' Organisation and the Scottish Woodland Owners' Association. Since the last census in 1960 the biggest change has been the introduction of double-drum winch techniques of timber extraction in mountain country. Thirty per cent of Commission production was extracted this way in 1969, compared with 1% in 1960. In that year horses were the mainstay of timber extraction, pulling about 53% of total production. Their share has now dropped to 14%, but 208 were still at work in 1969, mostly employed by contractors and merchants. The sheer physical effort required in forest work has been greatly reduced

by mechanisation, notably the increased use of cranes for lorry loading, and above all by the introduction of light-weight chainsaws for felling, snedding and cross-cutting. The number of chainsaws used by the Commission employees has increased tenfold since 1960. Plate 1 shows a modern timber forwarder equipped with its own loader.

38. Following indications that the increased use of chainsaws for prolonged periods could lead to vibration-induced effects ("white finger") a medical survey was conducted among chainsaw users in East Anglia, which confirmed that injury was possible. Tests on the antivibration characteristics of chainsaws were conducted for the Commission by the National Institute of Agricultural Engineering, and all models in regular use which did not reach recommended standards were replaced by saws acceptable in this respect.

Estate Management

39. With an estate of 2,995,500 acres containing a wide range of properties in every county in Great Britain, the Commission is concerned in almost every aspect of rural estate management. Details of the properties managed by the Commission are given in Tables 14 and 15 of this Report. To look after the management of this great estate—the largest in Britain—the Commission employs 34 chartered surveyors and 24 clerks of works. The cost of repairs to property is about £400,000 a year and the value of the capital works programme for new buildings, and major improvements is running at about the same level.

40. The Commissioners recognise that the best possible use must be made of all the assets at their disposal and that property which is not required for forestry or associated use should be sold. The sale of surplus assets, which has been gaining impetus for the past few years, was given a high priority during the year. Special effort was directed to reviewing, with the Agricultural Departments, the future of agricultural land held by the Commission and managed either directly, or by the Departments on the Commission's behalf. If this land cannot serve the objectives of the Commission, it will be sold wherever it is practicable to do so. The total amount realised from the sale of assets during the year was £660,000.

Minerals

41. A special feature in the year has been the increasing interest shown by mining companies in seeking exploration rights for minerals. It has been usual for the Commission, in suitable circumstances, to grant leases for the recovery of sand and gravel but during the past year a number of enquiries have been received about the possibility of extracting non-ferrous metals from low grade ores, especially in the mountainous areas of Scotland and Wales. The Commissioners are conscious of the need to utilise natural resources to the best advantage in their own and in the national interest, but they have also to take into account the effect of exploitation on timber production and on amenity and conservation. Their obligation under the Countryside Acts to have regard to the conservation of the natural beauty and amenity of the countryside is necessarily an important factor in their appraisal of specific proposals.



PLATE 2. An observation centre for wild life in Grizedale Forest, Lancashire. Deer are seen along grassy rides, and wild fowl frequent the tarn. D5976.



PLATE 3. A red deer hind with two calves in their dappled early coats, which camouflage them when at rest.

A3555.

Commons Registration

42. The registers compiled by Local Authorities under the provisions of the Commons Registration Act 1965 were completed during the year and showed that 296 claims had been made to rights over land controlled by the Commission. Objections have been lodged formally to many of these claims, but it is hoped that a settlement will be reached in most cases without reference to the Commons Commissioners.

Conservation and Recreation

43. It may be no coincidence that the Commission's principal regional officers were given the title of Conservator as long ago as 1945—many years before conservation entered the vocabulary of the world at large.

44. The new Conservation and Recreation Branch set up at Headquarters last year made a promising beginning. The responsibilities of this small but energetic Branch include all aspects of policy and planning for recreation and landscape amenity, and for the conservation and control of wildlife. Plates 2 and 3, and also Plates 4 to 6, central inset, show aspects of this work.

45. In conjunction with the setting up of this Branch there have been changes in the organisation of wildlife management in the eleven Conservancies. Many of these now have a Wildlife Forester, that is, a trained Forester on a tour of special duties concerned not only with the protection of plantations, but also with conservation and the wildlife aspects of recreation. The work of the various trappers, warreners and stalkers in the Commission has also been reviewed, their duties and deployment revised, and their training intensified. As an indication of these changes, the name of their grade has been altered to Ranger. A Head Ranger's duties are similar in type to those of the Wildlife Forester, except that they are less concerned with the broader management aspects than with implementation. Senior Rangers are primarily responsible for the protection of plantations at a particular forest and are often specially concerned with deer control. Rangers have similar duties, but with less responsibility. These new arrangements will permit greater flexibility of control and ensure an even more specialised approach to the changing problems of forest protection, conservation and wildlife management. They have the added advantage of further spreading understanding and practical experience of such work throughout the Commission at a time when the significance of this work is increasing.

46. Some of the early Commission plantations are now approaching maturity and it is essential that the felling and replanting programme is designed to ensure that the forest landscape now established will be maintained and if possible improved. The means of doing this will vary from forest to forest but will usually include the use of a diversity of species, regard for harmony with the local topography and the conservation of areas of mature woodland. Gwydyr Forest in North Wales is an example of the great care taken to devise schemes for felling and replanting which adheres to these principles. In consultation with the landscape consultant, Miss Sylvia Crowe, a scheme has been chosen in which a considerable degree of profitability has

been sacrificed in the interests of good landscaping. In particular a strongly deciduous character will be maintained with larch as well as hardwoods.

47. The Commission's recreation policy is referred to in paragraph 10 and is given in full in Appendix II of the Report. A free leaflet "Recreation in your Forests" was published for the general information of the public; this supplements the detailed lists of camping and caravan sites, which is also free and is revised periodically.

48. During the year there was a large increase in the number of picnic sites and forest trails, and there are now about two hundred of each. The largest single development was the opening of Hollands Wood Camp Site in the New Forest. Here in the glades of an oak wood is a fully equipped camp of 600 sites, bringing the total number of touring pitches offered by the Commission on its nine camp sites to 3,300. The number of camper nights spent at the major camp sites and in the New Forest increased to 966,000 from 850,000 in the previous year.

49. The Commission received nine of the awards made by the Countryside in 1970 Conference for countryside projects in England and Wales. The awards were given for projects varying from a simple forest trail to a whole complex including an information centre, a camp site, forest trails and picnic places.

Engineering

50. During the year 234 miles of road were completed to the final standard and 32 miles to the initial standard, bringing the total mileage of forest roads in use to 9,640. In addition 75 bridges were built or reconstructed. (See Plate 7, central inset).

51. Good progress was made in the introduction of larger-capacity tipping lorries and the replacement of older type excavators by hydraulic machines of higher output and greater versatility. The use of powerful angledozers equipped with rippers was effective in reducing the amount of blasting on road alignments located in rock. Research continued on the wider application of soil stabilisation of weak sub-grades with successful results. Investigations were initiated on road maintenance methods, which are of increasing importance on main forest roads with the increase of timber haulage.

52. Studies were carried out in conjunction with other Divisions on the safe working of skyline extraction equipment, on plough development and on other forest machines. Design work included the modification of standard equipment and machinery (mainly of harvesting tractors and ditching machines) for forest operations. A number of 32-ton heavy goods lorries with skeletal and light alloy bodies were introduced for the haulage of timber.

Management Services

53. The Commission is introducing a formal system of corporate planning principally to ensure that the available resources are used as effectively as possible. The corporate plan will provide a strategic framework within which the tactical plans of the Conservators can be developed. The plan falls into five parts: a review of opportunities and constraints; a statement of objectives by activities, such as new planting and management of estate properties (with

criteria by which their attainment may be tested); detailed appreciation of investment possibilities by activities and in some instances by operations, such as deep draining or road improvement; programmes in terms of targets, resources and output; and finally, revision in the light of past achievements.

54. Models of stand growth and development are a continuing requirement of management for planning and the evaluation of various cultural systems. The Mensuration Section has developed a computer programme which incorporates research information from spacing and thinning trials, and simulates the development of a stand for a given initial spacing and subsequent thinning treatment. At present the simulation is necessarily limited to the range of initial spacings and thinning factors such as type, cycle and intensity for which effects are known, but the programme will be developed as more basic information becomes available from experiments.

55. The metric revision and updating of area and crop data for the forest estate has been completed. This survey has provided a "data bank" for interpretation and forecasting. The sampling techniques used will form the basis for future quinquennial reviews of the Commission's growing stock in relation to site. A provisional estimate has been made of the area of soil groups and soil types by geological regions. With further developments, this type of information will be used to assess the scale and location of management and research problems where site type is a crucial factor. Keys to soil and treatment types, with maps of pilot surveys, will be prepared for local managers to provide a basis for economic appraisal and management planning. The use of panchromatic aerial photographs has been developed as an aid to the rapid survey of areas awaiting planting. Topographic surveys for local management were completed for 125,000 acres and soil surveys for 65,000 acres during the year.

56. Progress has been made on the projected conversion of the Commission's accounts and industrial payroll to a computer-based system designed by the Organisation and Methods Branch. A contract has been signed with the computer service bureau chosen to handle the processing, and the computer programmes are now being developed by a small team of Commission staff with initial assistance by a consultant. It is planned to begin the transfer of work to the new system in mid-1972.

57. Following the introduction of the new system of financial control which is operated by the Finance Division, responsibility was given to the Organisation and Methods Branch for the further development and continuing review of this and other management information systems. The Branch will also be responsible for keeping clerical procedures under review and, in collaboration with Establishment Division, for assessing the corresponding staff requirements.

58. During the current period the most significant advances in work study have been the development of a 45 brake-horse-power hydrostatic tractor and preliminary work on the possibilities of highly mechanised harvesting systems. The prototype tractor, which is frame-steered and articulated, was planned and developed at the research and development workshop and shows promise in initial trials.

59. Looking to the future, preliminary studies have been started on advanced mechanisation in harvesting; the first objective being to mechanise the debranching operation.

Fires

60. The number of fires recorded in plantations was 507 and the area burned about 450 acres. The value of the damage was £50,000; although the number of fires was a little higher than in the previous year, the area of plantations destroyed and the value of damage fell by over 50%. The biggest fire was at Ladycross in the New Forest, where in an hour 25,000 trees planted only six years ago went up in flames.

61. The Commission's plantations are now more freely open to the public than ever before and the Commissioners would like to believe that this is more of an insurance against fires than an added risk; but unfortunately too many young plantations are still being destroyed by the carelessness of those who come to enjoy them. None the less the Commissioners have cause to be grateful to the many members of the public who, having seen a fire, give prompt warning and often help in extinguishing it. The Commissioners also wish to record their thanks to the press, the BBC and Independent Television for their co-operation in giving publicity to fire danger in periods of high risk during the spring and early summer.

Staff

62. The general picture is of a steady reduction in most classes of non-industrial staff, as various economies and improvements in management techniques and procedures have had effect. The total number of non-industrial staff fell from 2,617 at the beginning of the year to 2,510 at the end, a reduction of 107 (of whom 84 were in the Forester grades). On 1st January, 1971, a voluntary severance scheme was introduced under which Foresters were to be awarded an immediate pension (or commuted lump sum) on resignation irrespective of age. Fifteen Foresters had decided to leave under this scheme by 31st March, 1971.

63. Early in the year agreement was reached with the Staff Side on the terms of reference and objectives of a Career Development Officer for the non-industrial staff. This officer works within the Establishment Division and at present the major part of his efforts are directed to reviewing and improving the methods of performance measurement and appraisal.

64. The Commission's industrial labour force as at 31st March, 1971, including part-timers, totalled 7,005 against 7,487 at 31st March, 1970. As in previous years the fall in numbers was achieved largely by normal wastage resulting from resignations and retirements, the number of workers unavoidably discharged on redundancy grounds being limited to 55. Discharge under the agreed redundancy procedure is resorted to only after the possibility of all alternatives, including the offer of work elsewhere in the Commission, has been explored.

65. By agreement reached on the Forestry Commission Industrial and Trade Council during the period under report the basic weekly wage of

forest workers was increased, with effect from 1st February, 1971, by £1.65 from £13.48 to £15.13. The paid annual leave allowance of the industrial staff was also increased from 2½ weeks to 3 weeks from the beginning of the current leave year. This followed a similar increase granted to Government industrial employees generally.

Finance

66. During the year studies continued on the future structure of the Commission's Accounts, in conjunction with the Government's review of forestry policy with which the subject is necessarily inter-related.

67. The new system of financial control which was introduced at the beginning of the year, was welcomed by the staff concerned at all accountable levels as a greatly improved aid to efficient and responsible management. Experience gained in the first year's operation will be used to good advantage in perfecting the system.

68. Table 1 at page 42 of this Report gives details of transactions on the Forestry Fund for the year ended 31st March, 1971 with the corresponding figures for the period from 1920 to 1970. The Grant-in-Aid of the Forestry Fund was £15.49 million compared with £15.1 million in the previous year. Payments and receipts under the main heads were as follows.

1969/70	PAYMENTS	1970/71
£m		£m
14.483	Salaries, wages and related expenses	15.458
4.282	Materials, contract services and general expenses	4.616
1.155	Acquisition of land, buildings and growing timber	1.469
0.872	Machinery and equipment	1.050
1.715	Grants to private woodland owners, universities, institutions etc.	1.945
0.230	Assistances towards the cost of transporting windblown timber	0.021
<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
22.737		24.559
-0.032	Variation in cash balances	+0.061
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22.705		24.620
<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
1969/70	RECEIPTS	1970/71
£m		£m
15.100	Grant-in-Aid	15.490
7.605	Receipts (mainly from sales of timber)	9.130
<hr style="width: 100%;"/>		<hr style="width: 100%;"/>
22.705		24.620
<hr style="width: 100%;"/>		<hr style="width: 100%;"/>

69. As in the previous year, the increase in salaries, wages and related expenses was due to pay awards; and the rise in materials, contract services and general expenses again reflected the additional expenditure needed to service the increasing forestry estate, together with the effect of price increases. Increased planting by Private Woodland Owners under the Dedication Scheme accounted for the increase in grants. Following last year's trend, receipts showed an increase of 20% mainly due to improved prices for the sale of timber. The sale of surplus assets accounted for £660,000, an increase of 23% on the previous year. At £15.49 million the Grant-in-Aid was only 2½% higher on last year's figure of £15.1 million, despite the general trend of rising costs and an increased programme.

70. The Grant-in-Aid of £15.49 million was applied to the two main functions of the Commission as follows:—

Forestry Enterprise £11,901,523 (£11,717,059 in 1969/70)
Forestry Authority £3,588,477 (£3,382,941 in 1969/70)

71. The accounts of the Forestry Enterprise, audited by the Comptroller and Auditor General, appear after page 75 at the end of this Report. The accounts of the Forestry Authority are shown in Tables 2 and 3 on pages 43 to 45. Owing to the introduction of the new system of financial control, a few accounting adjustments were necessary; thus in some cases a direct comparison with the previous year cannot be made.

Balance Sheet of the Forestry Enterprise (Page 76)

72. Liabilities increased during the year by £37.5 million (interest charges accounting for £29.1 million) after writing back the debit balance of £13.7 million on the Profit and Loss Account of which £2.9 million arose during the year. Fixed assets increased by £4.0 million and the book cost of Growing Stock by £33.7 million. The details of the increase in fixed assets are given in Note 6 to the Accounts at page 90 from which it will be seen £2.4 million was spent on the construction of roads and bridges and £1.4 million on the purchase of land. The increase in the book cost of Growing Stock arose from the creation of an additional 57,700 acres of plantations and the addition of a further year's expenditure on the existing forest estate of 1,744,000 acres.

73. The main asset shown in the Balance Sheet is the Growing Stock of £370 million (including interest of £200 million), of which £252 million (including interest of £118 million) is represented by plantations in course of formation and £118 million (including interest of £82 million) by plantations in production. The usual estimate of the expectation value of plantations in production (based on the present value of the future worth of these plantations at constant costs and prices) produced a figure of £81 million. This was £6 million higher than last year, compared with an increase of £11 million in the book cost (which includes accumulated interest). The basis of this valuation is explained in Note 10 to the Accounts on page 91.

74. As indicated in previous Reports the estimated cash return on afforestation (in this, as in all countries in the temperate zone of the Northern Hemisphere) is much lower than the average rate of interest (7.4%) charged

on Government investment in the Commission's forestry enterprise. The average rate of interest charged in the Accounts has greatly increased as the result of higher rates of interest in recent years.

75. A similar valuation for plantations in course of formation is not immediately feasible, but it is fair to assume that the ratio of expectation value to cost would be similar to the corresponding ratio for plantations in production.

Plantations in Course of Formation (Statement 1, page 78)

76. The increase in the area planted and restocked accounted for an increased expenditure of £279,000; but expenditure on weeding fell by £131,000.

77. The balance on this account at 31st March, 1971 was £252 million for 1,415,000 acres averaging £178 per acre compared with £169 at 31st March, 1970. Of this increase of £9 per acre, £8 was due to interest charges.

Plantations in Production (Statement 2, page 80)

78. The main items in this Account are the cost of interest and the amount transferred to the Harvesting Trading Account in respect of plantations thinned and felled. The latter amount was made up of £1.484 million for thinnings and £2.667 millions for fellings.

79. The balance on this account at 31st March, 1971 was £118 million for 432,900 acres, averaging £273 per acre compared with £250 at the end of the previous year. Of this increase of £23 per acre, £19 was due to interest charges.

Harvesting Trading Account (Statement 3, page 81)

80. Details are given in Table 11, page 49, of the areas felled and thinned and the volume of timber produced. A more detailed survey of this important activity appears in paragraphs 28 to 36 at pages 12 and 13 of this report. The significant feature of this Account is the increase of over £1 million in income (which rose to £6.801 million from £5.706 million) although the production of timber was only marginally higher (1.562 million cubic metres compared with 1.530). Expenditure was £5.022 million, compared with £4.512 million in the previous year.

81. Owing to the improvement in prices, which was for the first time effective over a full year, the ratio of trading surplus to total sales was 26% compared with 21% last year (and 14% two years ago). After deducting both the cost of harvesting and the cost of growing the plantations thinned and felled, there was a balance of £483,000 left to meet interest charges.

Estate Management Account (Statement 4, page 82)

82. This Account at present covers two different types of transaction which in future will probably be accounted for separately. First, it covers the management of estate assets which are not yet employed in the forestry

enterprise, or are scheduled for disposal as surplus; these transactions are shown in the first three columns of the table. Secondly, it covers (in the last three columns of the table) activities which are related to the forestry enterprise (as ancillary to the main objective of the production and sale of timber) such as the management of sporting rights and the provision of recreational facilities for the public and measures to safeguard amenity and wildlife.

83. The trading deficit on the assets in the first category was £333,000 (slightly higher than in the previous year).

84. Charges are made wherever practicable for the recreational services provided to the public, but the Commission's activities in the sphere of recreation, amenity and conservation are not in general productive of revenue. Thus while the Commission is satisfied that these expenses are well justified, it has to be recognised that they cannot be judged on strictly commercial criteria. Interest is none the less charged on the expenditure on these activities.

Profit and Loss Account (Statement 5, page 83)

85. The balances from the Harvesting Trading Account and the Estate Management Account are collected in this account. In addition to one or two minor items, the surplus on the sale of buildings is credited here; this surplus, which was almost double last year's figure, reflected the special attention being paid to the realisation of these assets.

Overhead Expenses (Statement 6, page 84)

86. This table gives details of administrative, clerical and supervisor overheads—mainly salaries—incurred during the year and their allocation to activities. The cost increased by £492,000 (7%) over last year to £7 million, owing to salary awards. The increase would have been greater but for the positive steps taken to reduce the numbers of non-industrial staff.

Estate Expenses (Statement 7, page 86)

87. This statement records the income and expenditure on properties related to the forestry enterprise. The net cost is £57,000 (approximately 4%) higher than last year.

Labour Oncost (Statement 8, page 87)

88. This statement gives details of the indirect expenditure incurred in respect of industrial employees and shows a small reduction (4%) on last year. The continuing decrease in the labour force has offset the effect of the increase in rates of pay and other increases in cost.

89. The amounts allocated to operations are included with direct expenditure in the appropriate accounts; for example, the amount of £616,991 shown against preparation of ground in Statement 1 includes £121,666 for labour oncost.

FORESTRY AUTHORITY

Private Forestry

90. During the year under report 56,100 acres of planting and replanting by private woodland owners were inspected and approved for grant aid by the Commission. In addition it is estimated that about 1,000 acres were planted without the aid of grants. Comparison with the previous year shows that 9,400 acres more were planted and approved for grant aid, an increase of about 8%. The increase in activity noted in last year's report has therefore been continued and is again largely attributable to the operations of the forestry investment groups on behalf of clients in the north of England and the south of Scotland. It is also noteworthy that 47,000 acres or 83% of the total planted was afforestation of bare land, compared with about 52% in the previous year. This represents a complete reversal of the trend in the earlier years of the Dedication Scheme, when the main emphasis was heavily on replanting.

91. The area dedicated rose to 1,047,300 acres and the number of Dedication Schemes rose by 163 to 3,538. The passing of the 1,000,000 acre mark under dedication is a significant stage in the history of the scheme. Preparations for dedicating a further 94,000 acres, representing 265 schemes, were in train on 31st March, 1971.

93. The total area under Approved Woodland Schemes rose slightly to 171,950 acres, with a net increase of 20 schemes; plans of operations for some 4,200 acres (20 schemes) were also in hand. The approved Woodland Scheme has therefore just about held its previously reported position.

94. A mandatory review of the level of planting and management grants has to be undertaken at not more than three-yearly intervals under the conditions of the Dedication Scheme. The review due in 1970, in respect of the rate of grants payable from 1st October, 1970, commenced during the year under report and continues.

95. During the year the Commission continued the series of meetings with the Forestry Committee of Great Britain at which matters of mutual interest to the two sectors of the industry were discussed informally and without commitment on either side.

96. The Commission also re-examined, in consultation with the Timber Growers' Organisation and the Scottish Woodland Owners' Association the form of the Standard Plan of Operations, with a view to the general introduction of metric measurement in the Dedication and Approved Woodland schemes.

Research

97. Research continued on the raising of high quality planting stock in the shortest possible time, using plastic tubes, small paper pots, and other containers under controlled glasshouse conditions. Large-scale forest trials have given encouraging results.

98. Many of the areas available for forestry are high and exposed, with ill-drained infertile soils. If trees are to thrive on such inhospitable sites, they must be carefully chosen by species and provenance, and the sites themselves must be improved by cultivation, drainage and the addition of appropriate fertilisers. Hence much research has been devoted to problems of establishment, growth, and later stability against wind of crops on these unpromising areas.

99. Generally, work on tree breeding and provenance is long-term, but the research being carried out on the breeding and provenance of Lodgepole pine and Sitka spruce is of special interest at present.

100. Drainage experiments on deep peats have given encouraging results, but drainage trials on some heavy, close-textured soils have had disappointingly little effect on growth. Cultivation rather than drainage of these soils has however increased rooting and improved growth.

101. In the field of protection against pests and diseases much time and effort is being devoted to finding control measures that avoid the unnecessary use of chemicals or choose those with the least possible disadvantages. In the control of the root and butt rot fungus *Fomes annosus*, chemicals must be used in many areas to treat stumps of felled trees and so protect the subsequent crop from infection. However, in pine areas it is now possible to introduce the competing fungus *Peniophora gigantea* on an increasing scale as a substitute for chemicals. Research on Dutch elm disease has now been greatly expanded, in view of the resurgence of this disease. New work has begun on root diseases caused by species of *Phytophthora*, about which little was previously known in this country.

102. In the entomological field, an increase in incidence of the pine looper moth, *Bupalus piniarius*, made necessary the aerial spraying of one forest area in Yorkshire. Trials were therefore carried out to find an insecticide without the disadvantage of DDT. Tetrachlorvinphos was selected, and after a local public meeting to explain and discuss the matter, the chemical was applied in August with successful results.

103. Attempts are also being made to find alternatives to DDT for dipping plants to prevent weevil damage at and just after planting time. Gamma BHC has given good results, but results with other newer materials have so far been disappointing.

104. A separate detailed *Report on Forest Research* is published annually. The Report for 1970 was published in November by Her Majesty's Stationery Office, price £1.50.

Education and Training

105. Since transfer of the responsibility for training of Foresters to the Education Departments, the planned closure of the Commission's Forester Training Schools has gone ahead. Two remained at the beginning of the year under report—Faskally School near Pitlochry, Perthshire, and the Dean School at Parkend in the Forest of Dean. The former closed in October 1970 and the latter was due to close in July 1971, bringing to an end an era during which some 3,400 young men were trained as Foresters in Commission schools.

106. At the beginning of the year, 71 student Foresters were in residence at the two remaining Forester Training Schools and of these 30 completed the course and were awarded their Forester's Certificate. On the closure of Faskally School in 1970, 18 students transferred to the Dean School for the second year of their course, increasing the total number of students at the Dean to 39, all of whom were due to complete their training in July 1971. Additionally, 11 overseas students were given a special four-month's course at the Dean School.

107. The Commission continued to co-operate with the City and Guilds of London Institute in the preparation of the more advanced specialised courses for young forest workers. A number of forest workers have successfully completed the first and second parts of the syllabus for the Forestry Stage I (Junior Craftsman) Course of the Institute.

108. The Commission provided ten candidates for a revision course for Foresters studying for the National Diploma in Forestry. This course was held at the Cumberland and Westmorland College of Agriculture and Forestry at Newton Rigg.

109. During the year, approximately 1,450 forest workers employed by the Commission attended a total of 390 courses of about one week's duration, the courses being primarily concerned with harvesting with chain saws, extraction by winch and the use of the latest type of tree-length skidding equipment. Other courses included operations such as chemical spraying and the erection of high-tensile spring-steel fencing.

110. About 150 members of the engineering staff attended 84 courses conducted by various firms and organisations.

111. Under a Commission training scheme introduced to enable supervisors and managerial staff to keep pace with new techniques and technical skills, 180 foresters and forest officers attended a total of 28 courses.

112. During the year the Commissioners decided to close Northerwood House—the Commission's training centre near Lyndhurst in the New Forest, which was in need of extensive restoration. Arrangements will be made for the courses formerly held at Northerwood to be conducted at other Commission premises or at educational training centres and hotels. The decision to close Northerwood House was not taken without reluctance, because it had become an established feature of the Commission with a tradition of its own; but the cost of adequate restoration would have been considerable, and it was unsuitable for other uses.

113. There was continued co-operation with the Agricultural, Horticultural and Forestry Industry Training Board and the Furniture and Timber Industry Training Board. An increased number of courses was provided by the Commission, as the Board's agents, for operators and supervisors from private estates. A forestry training liaison and development panel was set up to ensure that training development work on the state and private sides of forestry is complementary.

114. In the course of the year, the Secretary of State for Employment considered representations from the Timber Growers' Organisation and the

Scottish Woodland Owners' Association about the cost of operating the Agricultural, Horticultural and Forestry Industry Training Board's levy/grant system for the forestry sector alone, and the desirability of bringing together arrangements for training in the public and private sectors of forestry. Recognising that forestry presented a special case, the Secretary of State, with the support of the forestry Ministers, was prepared to consider removing the industry from the scope of the Board, provided satisfactory alternative arrangements for training could be made within the industry itself. The Commission, the Timber Growers' Organisation and the Scottish Woodland Owners' Association, with advice from the Department of Employment, subsequently initiated a preliminary study on the possibility of alternative arrangements on the basis of voluntary co-operation between the Commission and the private sector in a "pay-as-you-train" scheme.

Metrication

115. As previously planned, the Commission adopted metric measurement on 15th February, 1971 (to coincide with decimalisation). The forestry and home timber industry as a whole has confirmed its preference for metric measurement, through the Home Grown Timber Advisory Committee; the private sectors of the industry are of course free to make the change at times convenient to themselves, but it is likely that a substantial part of them will be working solely in metric units by the end of 1971.

116. The change to metric measurement has not been made as yet in this Report, except in respect of timber volumes which are now expressed in cubic metres instead of Hoppus feet. The Hoppus foot is not in fact a statutory Imperial unit; it is only a volumetric concept and it has largely lost its significance in commerce.

Home Grown Timber Advisory Committee

117. The Committee's Report on its year's work is published as Appendix I to this report, on page 33.

Dutch Elm Disease

118. The severe outbreak of the disease in 1970 aroused widespread concern for the future of the elm, which in addition to its amenity interest is of considerable value as a commercial species in specialised sectors of the home timber trade. The disease for which, despite worldwide research, there is at present no known cure is caused by a fungus spread by beetles which breed under the bark of recently killed or moribund elms. In order to restrict the spread of the disease, the Commission therefore recommends that in the outbreak areas all dead and severely affected trees should be felled. Advice on control measures was given the widest possible publicity through the Press and a free leaflet *The Dying Elms* published by the Commission during the year. The disease is described in scientific detail in the Commission's Leaflet No. 19, *Dutch Elm Disease*, price 8p, from Her Majesty's Stationery Office and the Commission's Headquarters.

119. The Commission held a conference on the disease in October 1970 which was widely attended by representatives of local authorities in the areas severely affected in the south of England and by interested organisations and public bodies.

Finance

120. The accounts for the Commission's activities as the Forestry Authority are given in Tables 2 and 3 on pages 43 to 45. The call on funds amounted to £3·588 million compared with £3·383 million last year, an increase of about 6% (see Table 2 at page 43).

121. Expenditure on planting grants under the Dedication Scheme showed a marked increase, mainly owing to the continued increase in private planting in the South of Scotland. Expenditure on Information and Shows has returned to normal, the previous figures having reflected the cost of the special provision for the Jubilee programme. Expenditure on the transport allowance for the transport of windblown timber represented terminal charges following the cessation of the scheme at 31st March, 1970. Expenditure on Research increased by 20%, owing to a small increase in staff, the effect of pay awards and the added annual cost of the new Research station in Scotland.

Publications

122. Twelve new publications were issued through Her Majesty's Stationery Office.

Reports:

Fiftieth Annual Report of the Forestry Commissioners, 1969-70.
(HC 141, Session 70-71). (70p)

Report on Forest Research for the year ended March 1970. (£1·50)

Census of Woodlands, 1965-67. G. M. L. Locke. (60p)

Bulletin:

No. 44 Operational Research and the Managerial Economics of Forestry.
P. A. Wardle. (£1·55)

Forest Records:

No. 71 Soil Groups of Upland Forests. D. G. Pyatt. (40p)

No. 73 Ploughing Practice in the Forestry Commission. G. G. M. Taylor.
(20p)

No. 75 Design, Construction and Maintenance of Earth Dams and
Excavated Ponds. E. F. Granfield. (17½p)

No. 76 Polecats. T. B. Poole. (12½p)

No. 77 Hedgehogs. P. Morris. (12½p)

Booklets:

No. 26 Metric Volume Ready Reckoner for Round Timber. (35p)

No. 31 Metric Top Diameter Sawlog Tables. (12½p)

No. 32 Thinning Control in British Woodlands (Metric). R. T. Bradley.
(70p)

123. In addition, twenty-eight publications were revised and re-issued. One free pamphlet entitled *The Forestry Commission and Conservation* was issued to mark European Conservation Year, followed by a second free pamphlet entitled *Recreation in Your Forests*.

TAYLOR OF GRYFE, *Chairman*
J. A. DICKSON,
Deputy Chairman and Director General
BALFOUR OF BURLEIGH
E. GWYN DAVIES
F. C. HUMMEL
P. NICHOLLS
G. G. STEWART
F. W. STRANG STEEL
R. B. VERNEY
H. J. WATKINS

J. J. V. SUMMERS, *Secretary*
FORESTRY COMMISSION,
25 Savile Row,
London W1X 2AY.

COMMITTEES

NATIONAL COMMITTEES

The membership of these Committees at 31st March, 1971 was as follows:

ENGLAND

Mr. R. B. Verney (*Chairman*), The Earl of Bradford, Mr. P. F. Shephard, Mr. G. G. Stewart, Major Sir Dennis F. B. Stucley, Bt. *Secretary to the Committee*: Miss M. J. Eden. The Committee met in August and September, 1970.

SCOTLAND

Major Sir William Strang Steel, Bt. (*Chairman*), Mr. S. E. A. Landale, Mr. J. E. James, Mr. A. B. L. Munro-Ferguson, Col. J. W. Nicol. *Secretary to the Committee*: Mr. E. G. Roberts.

WALES

Alderman E. Gwynfryn Davies (*Chairman*), Mr. M. L. Bourdillon, Dr. Margaret Brough, Mr. R. E. Griffith, Mr. H. J. Watkins, Mr. J. W. L. Zehetmayr. *Secretary to the Committee*: Mr. E. G. Owen. The Committee met in July and November, 1970 and March, 1971.

REGIONAL ADVISORY COMMITTEES

The membership of the Committees at 31st March, 1971 was as follows:

ENGLAND

North-West Conservancy

The Earl of Bradford (*Chairman*), Mr. J. L. Benson, Mr. F. G. Humphreys, The Earl of Lonsdale, Mr. I. H. Morten, Mr. H. W. D. Pollock, Mr. R. I. Price, Mr. H. C. M. Tapper, Mr. C. J. Venables. *Secretary to the Committee*: Mr. L. A. Chaplin. The Committee met in April, 1970.

North-East Conservancy

Mr. R. H. B. Hamersley (*Chairman*), Mr. N. C. Forbes Adam, Professor J. S. Allen, Mr. P. O. R. Bridgeman, Mr. J. Brocklebank, Mr. S. Earnshaw, Mr. J. Kirsopp-Reed, Mr. G. F. Stevenson, Mr. A. Wright. *Secretary to the Committee*: Mr. J. Steele. The Committee met in May, 1970.

East Conservancy

Mr. M. G. Reade (*Chairman*), Sir Stephen Lycett-Green, Bt., Mr. J. C. P. Langton, Mr. F. J. Massey, Mr. W. A. Miller, Mr. F. C. Osmaston, Mr. C. G. Soames, Major A. G. N. Hadden-Paton, Mr. D. B. Wallace. *Secretary to the Committee*: Mr. A. J. Searle. The Committee met in April and September, 1970.

South-East Conservancy

Lt.-Col. Sir William Mount, Bt. (*Chairman*), Mr. R. M. Batcheller, Mr. T. J. Daniel, Mr. J. Goring, Mr. E. J. B. Hardcastle, Mr. P. H. L. Hills, Mr. C. H. R. Hillman, Mr. H. W. Mackworth-Praed, Mr. R. T. Repton. *Secretary to the Committee*: Mr. L. W. Bowman. The Committee met in April and October, 1970 and March, 1971.

South-West Conservancy

Major Sir Dennis F. B. Stucley, Bt. (*Chairman*), Mr. M. T. S. Dower, Mr. J. E. Garfitt, Dr. Cyril Hart, Mr. N. D. G. James, Major J. L. Pilling, Mr. M. Roper, Mr. W. G. Sheppard, Mr. B. R. Weston. *Secretary to the Committee*: Mr. J. E. Taylor. The Committee met in October and December, 1970.

SCOTLAND

North Conservancy

Mr. A. B. L. Munro-Ferguson (*Chairman*), Mr. J. F. Barron, Col. A. E. Cameron, Mr. R. D. G. Clarke, Mr. J. Evans, Mr. A. N. S. Kinnear, Mr. G. G. Lyon, Mr. H. D. Skinner, Mr. R. W. K. Stirling. *Secretary to the Committee*: Mr. T. S. B. Macbeath. The Committee met in May and November, 1970.

East Conservancy

Col. J. W. Nicol (*Chairman*), Mr. M. F. H. Abraham, Mrs. J. C. Balfour, Mr. J. R. Cordiner, Sir William Gordon Cumming, Bt., Lt.-Col. M. P. Stormonth Darling, Mr. J. Hinselwood, Major R. N. Jardine Paterson, Prof. K. Walton. *Secretary to the Committee*: Mr. J. L. Reid. The Committee met in June and November, 1970.

South Conservancy

Mr. S. E. A. Landale (*Chairman*), Mr. J. Hunter Blair, Mr. H. A. L. Chapman, Mr. H. Crawford, Mr. T. Y. Gibson, Mr. R. D. Ker, Mr. J. A. S. Watson, Capt. J. M. A. Yerburch. *Secretary to the Committee*: Mr. A. A. Cowan. The Committee met in May and September, 1970.

West Conservancy

Capt. D. S. Bowser (*Chairman*), Capt. P. Lorne Mackie-Campbell, Mr. J. Grant, Capt. J. N. B. Baillie-Hamilton, Mr. P. McAinsh, Major Neil MacKinnon, Mr. A. E. Parkinson, Mr. P. Tennant, Mr. W. Wolfe. *Secretary to the Committee*: Mr. J. B. Wharam. The Committee met in May, 1970 and January, 1971.

WALES

North Conservancy

Mr. B. J. Crichton (*Chairman*), Mr. T. S. Brotherston, Mr. Gwilym Davies, Mr. R. C. Williams-Ellis, Mr. C. L. J. Humphreys, Mr. T. H. Owen, Mr. Langshaw Rowland, Mr. D. H. West, Rev. Chancellor J. H. Williams. *Secretary to the Committee*: Mr. J. W. Elliott. The Committee met in April and October, 1970.

South Conservancy

Col. Sir Cennydd G. Traherne, K.G. (*Chairman*), Mr. D. G. Badham, Mr. Bryn Davies, Major W. D. D. Evans, Mr. B. R. Feaver, Mr. K. J. Hilton, Mr. H. L. Knight, Mr. A. J. Birt Llewellyn, Mr. A. J. Llewellyn. *Secretary to the Committee*: Mr. J. Hogarth. The Committee met in October, 1970.

HOME GROWN TIMBER ADVISORY COMMITTEE

The membership of the committee is shown in the Committee's Annual Report for the year ended 31st March, 1971; see Appendix I (pp. 33 to 39). The Joint Secretaries to the Committee are Mr. R. B. M. Williams and Mr. R. C. Stern.

The Chairman of the Commission, the Director General and the three full-time Commissioners were present during meetings of the Committee. The Director of the Forest Products Research Laboratory and a senior official of the Department of Trade and Industry also attended.

The Committee met in April, July and October, 1970 and in January, 1971.

Technical Sub-Committee of the Home Grown Timber Advisory Committee

The membership of the Committee at 31st March, 1971 was as follows:

Mr. H. Richardson ...	...	Timber Research and Development Association, Ltd. (<i>Chairman of the Sub-Committee</i>)
Mr. A. E. Aitkins	...	} Timber Growers Organisation Ltd.
Major P. C. Ormrod	...	
Mr. D. B. Crawford	...	
	...	Scottish Woodland Owners Association, Ltd.
Mr. R. J. Tilley		Home Timber Merchants Association of England and Wales
Mr. T. Smith		Home Timber Merchants Association of Scotland
Mr. W. D. Butler ...		Home Grown Timber Marketing Corporation, Ltd.
Mr. J. Henderson ...		Society of Foresters of Great Britain
Mr. W. E. Bruce		British Wood Preserving Association
Mr. W. G. Trust		Council for Small Industries in Rural Areas
Mr. A. W. Camburn		Association of United Kingdom Wood Pulp Producers
		<i>Secretary: Mr. R. C. Stern</i>

The Sub-Committee met in April and October, 1969.

MECHANICAL DEVELOPMENT COMMITTEE

The membership of the Committee at 31st March, 1971 was as follows:

Mr. D. R. Johnston ...		Director (Management Services) (<i>Chairman of the Committee</i>)
Mr. E. H. Macmillan	...	} Forestry Commission
Mr. J. L. Davidson	...	
Mr. C. D. Begley ...	...
Mr. A. J. Cole	...	
Mr. L. C. Troup ...	...

Mr. R. F. Worgan ...	...	Home Timber Merchants Association of England and Wales
Mr. David Brown ...	...	Home Timber Merchants Association of Scotland
Mr. J. Matthews ...	...	National Institute of Agricultural Engineering
Mr. E. R. Huggard	...	Society of Foresters of Great Britain
The Hon. James Bruce	...	Scottish Woodland Owners Association, Ltd.
Mr. D. H. West ...	...	Timber Growers Organisation, Ltd.
Col. D. A. Campbell	...	Royal Institution of Chartered Surveyors
Mr. C. E. Budden, alternating with Mr. J. L. Flemington	...	Association of United Kingdom Wood Pulp Producers

Secretary: Mr. L. A. Carvosso

The Committee met in May and October, 1970.

ADVISORY COMMITTEE ON FOREST RESEARCH

At 31st March, 1971, the membership of the Committee was as follows:

Sir Frederick Bawden (*Chairman*)

Dr. W. P. K. Findlay

Mr. J. F. Levy

Professor J. D. Matthews

Dr. R. L. Mitchell

Dr. N. W. Simmonds

Professor W. J. Thomas

Professor P. F. Wareing

Secretary: Mr. G. H. Bowers

The Committee met in October, 1970.

APPENDIX I

HOME GROWN TIMBER ADVISORY COMMITTEE

ANNUAL REPORT FOR THE YEAR ENDED 31st MARCH 1971

Membership of the Committee at the beginning of the year was as follows:—

Mr. F. A. Bishop	... ..	(Chairman)
The Earl of Lonsdale	... ..	}
Commander G. G. Marten	... ..
Lt.-Col. Sir William Mount, Bt.	... ..
Col. J. F. Williams-Wynne	... ..
Timber Growers Organisation, Ltd.		
The Duke of Buccleuch	... ..	}
Sir William Gordon Cumming, Bt.	... ..
The Hon. James Bruce	... ..
Scottish Woodland Owners Association Ltd.		
Mr. G. J. Agate	... ..	}
Mr. W. G. Chalke	... ..
Mr. A. J. Edge	... ..
Home Timber Merchants Association of England and Wales		
Mr. James Cordiner	... ..	}
Mr. T. Y. Gibson	... ..
Mr. T. Smith	... ..
Home Timber Merchants Association of Scotland		
Mr. J. B. Dawson	... ..	Timber Trade Federation of the United Kingdom
Mr. H. Richardson	... ..	Timber Research and Development Association
Mr. J. A. Colvin	... ..	Association of United Kingdom Wood Pulp Producers
Mr. R. N. Bottini	... ..	}
Mr. T. J. Healy	... ..
Mr. Philip Mair	... ..
Independent		

During the year two members of the Committee resigned. Mr. Chalke was replaced by Mr. Henry Taylor (appointed 29th May, 1970). Sir William Mount retired after some nine years' service and was succeeded by the Duke of Buccleuch, whose former Scottish Woodland Owners' Association seat was then filled by the appointment of Major R. N. Jardine Paterson on 10th December, 1970.

The Committee met four times during the year; on 23rd April, 16th July and 22nd October, 1970, and on 21st January, 1971.

The year under report opened with intensive study of the Consultants' report: "A Marketing Study of British Wood Supply," which the Steering Committee, after initial study, had passed to the sponsoring organisations for comment. As a result of detailed consideration of these comments, the Committee concluded that each copy of the report should on general release be accompanied by a statement of its own attitude to the report. The full statement dated August, 1970 read as follows:—

"STATEMENT BY THE HOME GROWN TIMBER ADVISORY COMMITTEE

1. This Statement is intended to accompany each copy of the report: "A Marketing Study of British Wood Supply".
2. The report was commissioned on the recommendation of the Home Grown Timber Advisory Committee from the Economist Intelligence Unit, Ltd. by the following six sponsors: the Forestry Commission, the Home Timber Merchants Association of England and Wales, the Home Timber Merchants Association of

Scotland, the Scottish Woodland Owners Association, the Timber Growers Organisation and the Association of United Kingdom Wood Pulp Producers. The consultants were guided by a Steering Committee consisting of representatives of the sponsoring organisations and chaired by the Chairman of the Home Grown Timber Advisory Committee. The sponsoring organisations provided the consultants with some of the information presented in the report but the text, including the recommendations, is the sole responsibility of Economist Intelligence Unit, Ltd.

3. The Home Grown Timber Advisory Committee in fact does not agree with some of the conclusions reached and does not accept some of the recommendations. Furthermore, it is considered that certain matters on which the Economist Intelligence Unit has commented were outside the guidelines indicated by the Steering Committee. These matters include the level of government financial support for the timber grower and the constitutional position of the Forestry Commission. Though such matters may indirectly be relevant to the problem of improving marketing arrangements, they raise wider issues which could more appropriately be taken up elsewhere.

4. Nevertheless, the Home Grown Timber Advisory Committee believes that the report is a useful survey of the present state of the home wood industry and accepts the basic diagnosis that fragmentation and lack of commercial motivation are present in many sectors of the forest industry. The only effective measures are likely to be those which directly or indirectly contribute to improving this situation. It is significant that one of the results of considering the report has been a recognition by all parties of the importance of co-ordination of marketing between the Forestry Commission and the private sector.

5. The Home Grown Timber Advisory Committee believes that the *improvement of co-operative marketing* of round timber is most important. The Economist Intelligence Unit report pays insufficient regard to the significant achievements of co-operatives particularly in Scotland. It is accepted that the concept of co-operative marketing need not necessarily be confined to co-operative societies and that it can include, for example, the improvement of marketing by co-ordination through forest management companies. The essential requirement is that a basis should be provided by the organisation concerned for the longer-term bulk supply of wood essential to the development of efficient wood-using industries, which make good use of the raw material, operate profitably and pay a fair price to the grower.

6. The Commission and other sponsoring organisations have agreed to explore measures for *co-ordination of selling* of round timber. Such measures may include: (a) joint consultations on the timing of major sales; (b) the possibility of joint auction sales; (c) improvements in the exchange of information on price trends and other short-term market intelligence.

7. The Economist Intelligence Unit recommends that a study should be carried out by the growers' organisations on the possibility of syndication between neighbouring owners. The Home Grown Timber Advisory Committee is not altogether convinced that this needs to be done, but nevertheless believes that *local co-operation in harvesting* should be considered with the object of making full use of harvesting resources in the area. This may have significance in particular for two or three adjacent forest areas relatively isolated from others. It is for consideration whether in certain circumstances this co-operation might, with mutual advantage, be extended to marketing. Any such action must not, of course, conflict with the legitimate business of plant-hire, contracting firms or timber merchants but should be done with their full recognition and acceptance that it is desirable for the better use of resources in the locality.

8. On the other hand, the Home Grown Timber Advisory Committee believes that preferential encouragement to specialise in harvesting should not be given to any selected organisations in the forest industry. The Economist Intelligence Unit's recommendation that companies specialising in harvesting and marketing should be the ones primarily concerned with harvesting is therefore not acceptable. It is agreed that *efficiency of harvesting* and of marketing of roundwood are of prime importance and that there is scope for improvement. It is believed that this

improvement will result in time from healthy competition especially if investment grants can be made available. It is felt that employers should seek to encourage the contractors whom they engage on harvesting by offering them greater stability of employment and by assisting them whenever possible to obtain the training and equipment necessary for them to exploit fully modern techniques in their operations. This must inevitably lead to a higher standard of harvesting with an eventual reduction of costs and in many cases more orderly marketing.

9. The Home Grown Timber Advisory Committee welcomes the support given by the Economist Intelligence Unit to the value of *investment grants* for the introduction of which in harvesting the Home Grown Timber Advisory Committee has repeatedly pressed. But the Economist Intelligence Unit's recommendation about selectivity of investment grants is rejected because it is believed that in practice it would be impossible for such a scheme to be administered with any degree of equity, and because it is not accepted that a large harvesting organisation in the terms defined is necessarily more efficient than a small one. The present good relations between the Commission, the Private Growers and the Trade could easily be jeopardised if such a scheme were adopted. The Home Grown Timber Advisory Committee is nevertheless whole-heartedly in favour of the introduction of forestry investment grants or other suitable Government incentives to invest in harvesting machinery.

10. The report draws attention to certain *constraints on felling*. Although it is believed that the main concern should be to improve the marketing of the supplies of timber which are in any case coming forward, ways and means of increasing the flow of wood from private estates should be examined. An investigation into the effects of, for example, amenity or sporting will be considered by the Home Grown Timber Advisory Committee.

11. On the question of *saw-milling organisation*, the Home Grown Timber Advisory Committee considers, particularly with regard to softwoods, that rationalisation can be stimulated by the marketing of sawlogs in larger lots and on longer-term contracts. The Forestry Commission is already pursuing this policy in certain regions and it is believed that if private growers do the same, it would have a similar beneficial effect. The co-ordinated marketing of private supplies would be essential for this to be effected. It is felt that the criticisms of sawmilling by the Economist Intelligence Unit were exaggerated and often out-dated particularly for Scotland, where much improvement has taken, and is taking, place. Nevertheless, the Home Grown Timber Advisory Committee believes that the sawmillers appreciate that the rationalisation of sawmilling is an urgent problem and notes that they have stated their intent to improve the standards and efficiency of this industry.

12. The question of the *utilisation of residues* is considered of importance, especially in Scotland. The Home Grown Timber Advisory Committee believes that the way to improve utilisation is through the rationalisation of the sawmilling industry itself and by close integration between sawmills and residue-using industries. There is also a need for new residue using industries in certain areas.

13. As a result of its consideration of the report, the Forestry Commission intends to extend its studies of the desirable *long-term pattern of forest industries' development* and to seek the advice of the Trade and Growers' Organisations, particularly on roundwood availability and on existing markets in the specified regions.

14. In the light of the large amount of useful information produced in the report, the Home Grown Timber Advisory Committee believes that the *statistical information* needed by the industry to promote efficient marketing should be critically reviewed. It is felt that one of the greatest weaknesses lies in forecasts of private woodlands' roundwood production. It is proposed to seek ways of making more use of the forms used in the plans of operations for dedicated and approved woodlands. The Home Grown Timber Advisory Committee understands that initially the Commission will examine what better use can be made of these forms, as well as what might be added to them to make the information more valuable, and that the Commission will discuss its proposals with the Growers' Organisations

15. Arising from its careful consideration of the report, and its recognition of the need for greater co-operation and co-ordination between the Forestry Commission and the private sector in the field of marketing, the Home Grown Timber Advisory Committee has been led to consider other specific measures relevant to the improvement of marketing arrangements for the industry. Recommendations will be made as appropriate to the Forestry Commission."

Copies of the report with the accompanying statement were then generally released and besides members of the Committee and its Technical Sub-Committee and of the sponsoring organisations, recipients included the Forestry Societies, the forestry departments of the Universities and the interested training boards. Copies were also sent to and reviewed by the trade press.

Progress has been made during the year on several of the points highlighted by the Committee's statement and suggested by the report itself for further and special consideration. In most cases, however, discussion remains at the formative stage and it is too early to announce any conclusions. However it can be said that useful progress is being made by the interested parties on closer consultative arrangements for marketing, the provision of more worthwhile statistical information, on the sort of work that might be carried out by a hardwood marketing adviser should such an appointment be made and the possibly greater use of the imported trade's distribution network by the home timber trade.

The Committee, through its Chairman, reinforced its earlier representation about the prospect of enhanced productivity if the Forestry Industry became eligible to receive investment grants, by citing the support given by the Consultants in their report. However these approaches were overtaken by the Government's decision to abolish the investment grant system altogether and replace it with arrangements for writing off depreciation of plant and machinery. While the Committee believes that the Forestry Industry is now treated more fairly, it has asked the Forestry Commission to ascertain whether this treatment is in line with that for comparable industries.

The Committee noted that as a positive reaction to the report, the Association of Forestry Cooperatives of Great Britain had been established under the chairmanship of one of the Committee's members, Mr. Bruce.

The Windblow Action Group reported that at 1st July, 1970, 94% of a total estimated windthrow of 46 million hoppus feet had been felled and 91% cleared. The Committee will recommend to the Commission that it should publish the Group's final report in an appropriate form.

The Committee noted that the Commission had received categorical assurances from the Ministry of Transport (now part of the Department of the Environment) that tenders for motorway fencing were invited on the basis of British Standard Specification 1722, which did not discriminate against the use of home grown timber. Reports were, however, received by members that uniform inspection standards had not been applied in two recent fencing contracts and that suppliers of home grown timber therefore had continued cause for misgivings. The Committee have invited the Home Timber Merchants Association of England and Wales to take up with the Department of the Environment their offer to discuss the composition and aims of a working party to look into the drafting of future specification clauses.

The Committee considered the incidence of tree preservation orders, and noted that the overall number of orders made annually had increased considerably since the passage of the Civic Amenities Act 1967, especially in the southern half of England. It is recognised that, apart from tree preservation orders, there are other constraints on the commercial exploitation of trees and the Committee will give these factors further consideration.

The Committee, as required by the Forestry Act 1967, were consulted by the Forestry Commission on draft regulations concerning felling licensing procedures.

These regulations when presented will cover:—

- (a) the metrication of certain measurements that appear in the Forestry Act 1967;
- (b) the prescription in metric terms of the form of measuring standing timber; and
- (c) the reissue in consolidated form of the balance of existing regulations dealing with felling licensing.

The Committee agreed these regulations both in detail and in substance and confirmed their support for metrication in the home Forest Industry.

The Committee has advised the appropriate Growers' and Merchants' Associations in conjunction with the Forestry Commission to prepare a case to be put to the Ministry of Transport for the extension to England and Wales of the recent relaxation of timber haulage drivers' hours allowed in Scotland.

The Committee welcomed the approach made by the President of the Home Timber Merchants Association of England and Wales to the Association of British Plywood and Veneer Manufacturers with regard to the economic and technical feasibility of establishing a plywood mill utilising middle grade home grown hardwoods. The Committee note that this project will be further pursued in the context of the follow-up action currently to be taken on the Consultants' report.

The Committee have considered the public image of the British wood industry in the light of some recent unwarranted criticisms on television and in the Press.

These attacks were felt to be based on a misunderstanding of the position and the Committee agreed that it should consider further what measures the various parts of the industry could take together to ensure that a truer picture was in future presented.

The Committee express their concern in the light of recent plant closures in the British chipboard industry for the continuance of outlets for thinnings and note that the Forestry Commission and the private sector are shortly to discuss the matter.

The Committee received and considered reports from the Co-ordinating Committee on the work of Marketing Liaison Committees and statistical information supplied by the Forestry Commission on felling, production and sales of timber, and prices and market trends.

A summary of the Annual Report of the Committee's Technical Sub-Committee for the year to 31st March, 1971 is appended.

**ANNUAL PROGRESS REPORT OF THE TECHNICAL SUB-COMMITTEE
OF THE HOME GROWN TIMBER ADVISORY COMMITTEE
FOR THE YEAR ENDED 31st MARCH, 1971**

Meetings

The Technical Sub-Committee met twice during the year: on the 15th April at Northampton and on the 1st October in London.

Membership

The Sub-Committee was reappointed for a further three year period with effect from 1st January, 1971. The only change in membership was the replacement of Mr. A. G. Waterman as representative of the British Wood Preserving Association by Mr. W. E. Bruce.

Meetings were also attended by representatives from the Forestry Commission, Forest Products Research Laboratory and the Ministry of Technology (now Department of Trade and Industry).

Introduction of Metric Measures

Progress towards metrication was kept under review and it was noted that there were likely to be few difficulties and that training was proceeding satisfactorily. The home timber trade would be prepared to use the solid cubic metre for hardwoods as well as softwoods and the use of "metric hoppus" by the imported trade for hardwood logs would not normally cause difficulty to the home trade. With regard to a replacement for the "cord", it was felt that measurement of a stack in cubic metres would be preferable to adopting a separate metric unit.

Marketing and Utilisation of Hardwoods

The Sub-Committee devoted considerable time to consideration of a comprehensive paper submitted by the Forestry Commission which attempted to identify the principal problems in the marketing and utilisation of hardwoods. It was agreed that there were generally no major problems with the better grades of hardwoods.

With regard to the middle grades, which were typical products from a large area of woodlands, two aspects were considered. The first was that, because of the difficulties associated with stockholding by the smaller sawmillers of the better grades of sawn hardwoods arising from their operations, there was a need to establish a stockholding organisation to market these better grades. It was recalled that there had been earlier efforts to achieve this (through the Home Grown Timber Marketing Corporation) and it was agreed that the time was opportune for a further attempt, probably on a pilot scale initially. The second aspect concerned the manufacture of plywood and peeled veneers from the middle grades; the Sub-Committee believed that, as the technical feasibility had been proven, the establishment of a plywood mill to use these grades of hardwoods would be a commercial proposition.

In discussing the lowest quality of hardwoods, the Sub-Committee considered that outlets should be sought in addition to plywood and sawn mining timber. It was reported that there were no technical difficulties in using hardwood for chipboard, although they might be less easy than softwoods, and it was noted that hardwoods would probably be used more extensively in the future in British chipboard manufacture. It was agreed that chemical utilisation of wood other than pulping could be ruled out completely at present on economic grounds.

The Sub-Committee considered a number of other aspects including the need for better statistical information on hardwoods. In making recommendations to the parent committee following the conclusions reached in its discussions, it also advised that there was a need for the appointment of a hardwood adviser, who should investigate specific aspects of marketing and utilisation as well as means of improving and disseminating statistics.

Pruning of Hardwoods

Consideration was given to a paper which dealt with the effects of pruning on timber properties and the problems of epicormic growth. The Commission has been asked to provide additional information, with some emphasis on the pruning of hardwoods grown in open or "free" conditions.

Harvesting Systems

The Sub-Committee suggested that it should have a closer link with the Mechanical Development Committee, so that it would be aware of any developments in harvesting and transport which might be relevant to its deliberations. Arrangements were made during the course of the year for the establishment of a satisfactory link. It was felt that there was a definite need for investigating harvesting systems, taking account of roading and transport, which were suitable for both the private grower and the Commission. Consideration was being given to the method of achieving this, including the dissemination of information.

Manufacture of Plywood

Further consideration was given to the possibility of using softwood logs for manufacture of constructional grade plywood and the views of the Association of British Plywood and Veneer Manufacturers were obtained. In view of the strong established position of imported plywood and the barely adequate log supplies (for which sawmills would also be competing vigorously), it was felt that the time was not appropriate for establishment of a softwood plywood mill.

Other Subjects

The Sub-Committee also considered the effect of fertilisation on wood properties, properties of Grand fir timber, strength properties of home grown softwoods and reduction of needle fall in Christmas trees; and also kept under review the need for research into particular problems and the dissemination of information.

APPENDIX II

RECREATION POLICY

General

Public demand for countryside recreation is increasing rapidly. The Forestry Commission is in a unique position to help to meet this demand since it is responsible for almost 3 million acres of land in Great Britain, distributed widely throughout the country. Further, forest and woodland have a greater capacity for absorbing people in the countryside without impairing the environment than other forms of land use. The Commission's staff, too, are highly trained and have long experience in land management.

1. **THE COMMISSION'S POLICY** is to develop the unique recreational features and potential of its forests, particularly where they are readily accessible to large numbers of visitors from the major cities and holiday centres. This will be done in conformity with the Commission's statutory powers and obligations, within the financial resources available and subject to the primary objective of timber production. The Commission will ensure that its recreational development will neither injure the forest environment nor conflict with its conservation.

Execution

2. **THE COMMISSION'S POLICY** is to prepare regional Recreation Plans. In making these Plans the Commission will consult local planning authorities and other interested bodies such as the Nature Conservancy, the Countryside Commission for England and Wales and the Countryside Commission for Scotland, the Sports Council and the Commission's own Regional Advisory Committees which have a special responsibility to advise the Commission on amenity and recreational matters. The Commission will also take account of the legitimate interests of their lessors, tenants and neighbours.

Access to the Forests and Facilities in the Forest

The public have long been admitted to the Commission's forests wherever access has not been in conflict with its legal obligations to lessors or tenants. Indeed, in 1935—15 years before the establishment of the first National Park—the Commission set aside its first extensive area as a national Forest Park, in Argyll.

Since then six more areas with unique recreational characteristics have been designated Forest Parks and these now total, together with the New Forest, over 600,000 acres.

The rapid development of forest recreation in recent years makes it probable that nearly all the Commission's forests are likely to become places where people will want at least to walk and picnic, if not to take part in other forms of recreation.

3. **THE COMMISSION'S POLICY** is to allow the public to enter on foot all its forests except those subject to agreements which would be infringed by unrestricted access, provided that this access is not in conflict with the management and protection of the forest and is subject to the Commission's bye-laws. Access by the public for air and exercise, including the use of forest walks and picnic places, will be free of charge.
4. **THE COMMISSION'S POLICY** is to provide other facilities for the needs of visitors, such as small-scale car parks and information centres. These will not be expected to be completely self-supporting and charges will be made wherever feasible.

5. THE COMMISSION'S POLICY is to provide larger facilities also, such as sites for camping and caravanning, and some relatively large-scale car parks and information centres. Charges will be made for the use of these facilities, which will be expected to be self-supporting.
6. THE COMMISSION'S POLICY is to prohibit the regular use of forest roads by motor vehicles for recreational purposes, except where necessary for access to camping and picnicking sites and to car parks in designated places.
7. THE COMMISSION'S POLICY is to maintain the particular status of those extensive and sometimes remote forest areas—the Forest Parks.
8. THE COMMISSION'S POLICY is to signpost clearly those forests and parts of forests where access and recreation are particularly encouraged. Notices and signs of a uniform standard and good design will be used.

Special Activities

As the Commission's forests occur on a wide variety of terrain in almost every part of the country they provide opportunities for many types of leisure pursuits, such as shooting, fishing, orienteering, pony trekking, sailing and nature study. In all these cases there is a need to observe local customs, to protect the forest environment, to respect the rights of others and to encourage those activities which may be most enjoyed by the general public.

9. THE COMMISSION'S POLICY is to continue to manage facilities for field sports in accordance with accepted codes of practice. However, priority will be given to recreational activities by the general public wherever any conflict of interests is likely to arise.
10. THE COMMISSION'S POLICY is to extend the opportunities for fishing and, where feasible, to make fishing available on a daily basis. Lettings to angling associations will contain provision for the issue of day permits.
11. THE COMMISSION'S POLICY is to arrange sporting activities in consultation with the representatives of the particular sport. Permits for riding will be issued locally but will be subject to conditions and charges determined nationally.
12. THE COMMISSION'S POLICY is to obtain revenues from special activities sufficient to cover its costs.

Education

13. THE COMMISSION'S POLICY is to encourage the widest use of its forests for educational purposes and the study of natural history. Such general use will be free of charge provided that no special facilities are required. In certain circumstances the written authority of Conservators may be needed. Special use with a commercial objective will be subject to charges.

APPENDIX III
FINANCIAL AND STATISTICAL TABLES

Table 1
FORESTRY FUND: SUMMARY
YEAR ENDED 31ST MARCH 1971
(year ended 30th September to 1967)

£

	Balance from Preceding Year	Receipts			Payments
		Total	From Parlia- mentary Votes	From Sales of Produce Rents, etc.	
GRAND TOTAL 1920-31/3/1971	—	358,872,600	264,677,800	94,194,800	358,483,837
1920-1929 ...	—	4,421,484	3,570,000	851,484	4,502,018
1930-1939 ...	—	8,114,652	6,292,800	1,821,852	7,926,093
1940-1949 ...	—	26,370,778	18,945,000	7,425,778	26,238,789
1950-1959 ...	—	104,315,023	79,023,000	25,292,023	104,144,134
1960 ...	410,903	13,832,639	10,702,000	3,130,639	13,930,162
1961 ...	313,380	15,511,200	12,169,000	3,342,200	15,621,481
1962 ...	203,099	15,115,169	11,670,000	3,445,169	15,301,732
1963 ...	16,536	15,820,533	12,245,000	3,575,533	15,763,547
1964 ...	73,522	17,413,995	13,510,000	3,903,995	17,539,122
1965 ...	<i>Dr.</i> 51,605	18,180,620	13,565,000	4,615,620	17,956,295
1966 ...	172,720	19,351,005	14,394,000	4,957,005	19,305,559
1967 ...	218,166	21,334,121	15,305,000	6,029,121	21,166,898
1968 (period 1/10/67 to 31/3/69) ...	385,389	31,766,497	22,697,000	9,069,497	31,791,607
1969 (at 1st Apr.) ...	360,279	22,704,970	15,100,000	7,604,970	22,737,106
1970 ...	328,143	24,619,914	15,490,000	9,129,914	24,559,294
1971 ...	388,763				

Note.—The above amounts are cash actually received or paid out.

Table 2
FORESTRY AUTHORITY
BALANCE SHEET
AS AT 31 MARCH 1971

<i>As at</i> <i>31 March</i> <i>1970</i> £		£	£
	SOURCE OF FUNDS		
	CAPITAL		
	Grant in aid:		
36,494,639	To 1 April, 1970 ...	39,877,580	
3,382,941	Additions during year	3,588,477	
<hr/> 39,877,580		<hr/> 43,466,057	
92,869	<i>Less</i> Notional selective employment tax refund (from 5.9.66)	132,309	
<hr/> 39,784,711			43,333,748
1,332	PROVISION		
	Fire insurance (Table 3, Note 1) ...		1,332
<hr/> £39,786,043			<hr/> £43,335,080
	EMPLOYMENT OF FUNDS		
58,415	FIXED ASSETS (Table 3, Note 2)		68,412
	NET CURRENT ASSETS		
	Current Assets:		
236,151	Loans to Private Woodland Owners	223,649	
—	Stocks of Vehicle and Machine		
60,481	Spares	206	
11,027	Debtors and sundry debit balances	77,429	
	Cash at bank and in hand	571	
<hr/> 307,659		<hr/> 301,855	
16,963	<i>Less</i> Sundry creditors	17,620	
<hr/> 290,696			284,235
	ACCUMULATED BALANCES OF EXPENDITURE		
	(Table 3, Note 3)		
23,092,414	Services to Private Woodland Owners	25,416,141	
7,282,833	Special Services (including felling licensing)	7,451,649	
9,061,685	Research Branch	10,114,643	
<hr/> 39,436,932			42,982,433
<hr/> £39,786,043			<hr/> £43,335,080

J. A. Dickson
Accounting Officer
25 August 1971

Table 3
FORESTRY AUTHORITY
NOTES ON THE ACCOUNTS

1. PROVISION FOR FIRE INSURANCE

<i>Previous year</i>		£
1,332	Balance at 1 April 1970	1,332
—	Provision during year ...	—
1,332		1,332
—	<i>Less Losses during year</i>	—
£1,332	Balance at 31 March 1971	£1,332

2. FIXED ASSETS

	Vehicles, Machines and Equipment	Office Furniture and Equipment	Total	Previous year Total
	£	£	£	£
Cost at 1 April 1970 ...	75,351	132,741	208,092	172,180
Additions ...	16,487	15,343	31,830	22,184
Disposals and Transfers ...	<i>Dr</i> 945	<i>Cr</i> 825	<i>Dr</i> 120	<i>Dr</i> 13,728
Cost at 31 March 1971 ...	92,783	147,259	240,042	208,092
Accumulated depreciation at 1 April 1970 ...	49,775	99,902	149,677	118,558
Provision for year ...	9,358	11,889	21,247	23,766
Disposals and Transfers ...	<i>Cr</i> 768	<i>Dr</i> 62	<i>Cr</i> 706	<i>Cr</i> 7,353
Accumulated depreciation to 31 March 1971 ...	59,901	111,729	171,630	149,677
Net book value at 31 March 1971 ...	£32,882	£35,530	£68,412	
<i>Net book value at 31 March 1970 ...</i>	<i>£25,576</i>	<i>£32,839</i>		<i>£58,415</i>

Depreciation of vehicles, machines, furniture and equipment is provided by charges to operating costs of the amounts required to write off the original cost of the assets by equal annual instalments over their estimated lives.

Table 3—continued

3. EXPENDITURE ON FORESTRY AUTHORITY SERVICES

Analysis of Net additions during year

<i>Previous year</i>		<i>£</i>
	<i>Services to Private Woodland Owners</i>	<i>£</i>
	Grants under Dedication Schemes:	
18,347	Basis I	20,001
914,195	Basis II: Planting Grants	1,146,220
561,145	Management Grants	576,012
94,874	Approved Woodlands Planting Grants	83,750
89,497	Small Woods Planting Grants	85,327
10,079	Scrub Clearance Grants	4,356
8,036	Miscellaneous	10,813
331,932	Overhead expenses	392,983
24,723	Estate expenses	31,838
<hr/>		<hr/>
2,052,828		2,351,300
33,613	<i>less</i> Net miscellaneous income	27,573
<hr/>		<hr/>
£2,019,215		£2,323,727
	 <i>Special Services</i>	
	Licensing of Felling	<i>£</i>
88,362	Overhead expenses	100,339
8,262	Estate expenses	7,259
		<hr/>
		107,598
	Information and Shows	
66,055	Overhead expenses	42,952
	Windblow	
255,881	Transport allowance	17,609
8,112	Overhead expenses	550
597	Estate expenses	107
		<hr/>
		18,266
<hr/>		<hr/>
£427,269		£168,816
	 <i>Research</i>	
461,748	Silviculture, including Nursery Work	556,036
63,005	Genetics	73,403
94,001	Pathology and Entomology	124,696
47,738	Statistics	58,083
37,784	Publications and Library (includes Overhead expenses	
	£37,640)	47,614
14,998	Photography	18,283
23,773	Westonbirt and Bedgebury Arboreta	28,132
21,413	Grants to Institutions	17,298
108,634	Overhead expenses	129,413
<hr/>		<hr/>
£873,094		£1,052,958

LAND USE

Table 4

At 31st March 1971

Thousands of Acres

	Great Britain	England	Scotland	Wales
Total area	2,995.5	760.4	1,843.6	391.5
Forest Land: Total	2,109.2	629.9	1,145.2	334.1
Under plantations	1,797.0	581.6	903.6	311.8
To be planted	312.2	48.3	241.6	22.3
Other Land: Total	886.3	130.5	698.4	57.4
Nurseries	1.1	0.4	0.5	0.2
Agricultural and grazing	473.0	60.4	373.3	39.3
Forest Workers Holdings	13.3	3.1	7.6	2.6
Unplantable and miscellaneous	398.9	66.6	317.0	15.3

LAND MANAGED BY THE AGRICULTURAL AND OTHER DEPARTMENTS*

Table 5

At 31st March 1971

Thousands of Acres

	Great Britain	England	Scotland	Wales
Total area	388.4	24.2	353.7	10.5
Forest land	53.3	—	52.7	0.6
Agricultural and other land	335.1	24.2	301.0	9.9

* Included in Table 4 above.

FOREST LAND ACQUIRED IN THE YEAR ENDED 31st MARCH 1971†

Table 6

Thousands of Acres

	Great Britain	England	Scotland	Wales
Total area	51.7	1.9	46.9	2.9
Standing woods	0.5	-0.1	0.5	0.1
Land for new planting	51.2	2.0	46.4	2.8

† Net area acquired.



PLATE 4. A well-thinned plantation of Sitka spruce near Brendon, Somerset. Once established, this leading timber species allows light to reach the forest floor; access is easy and undershrubs flourish. B1313.

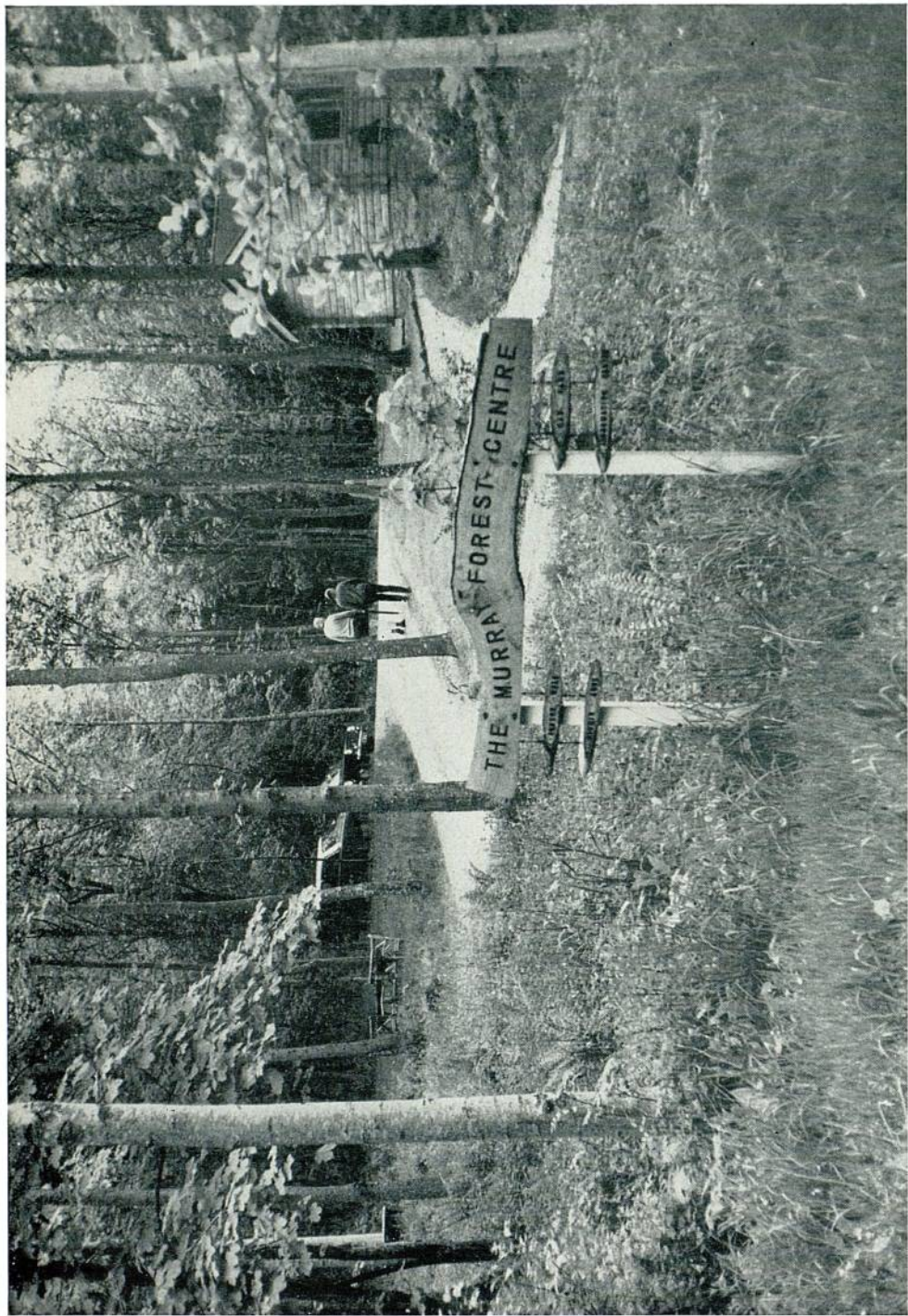


PLATE 5. The new Forest Information Centre at Fleet Forest in Kirkcudbrightshire, South-West Scotland, which includes a car park, picnic benches, and a log-cabin shelter with displays to interest naturalists. Two forest trails start here. A4667.

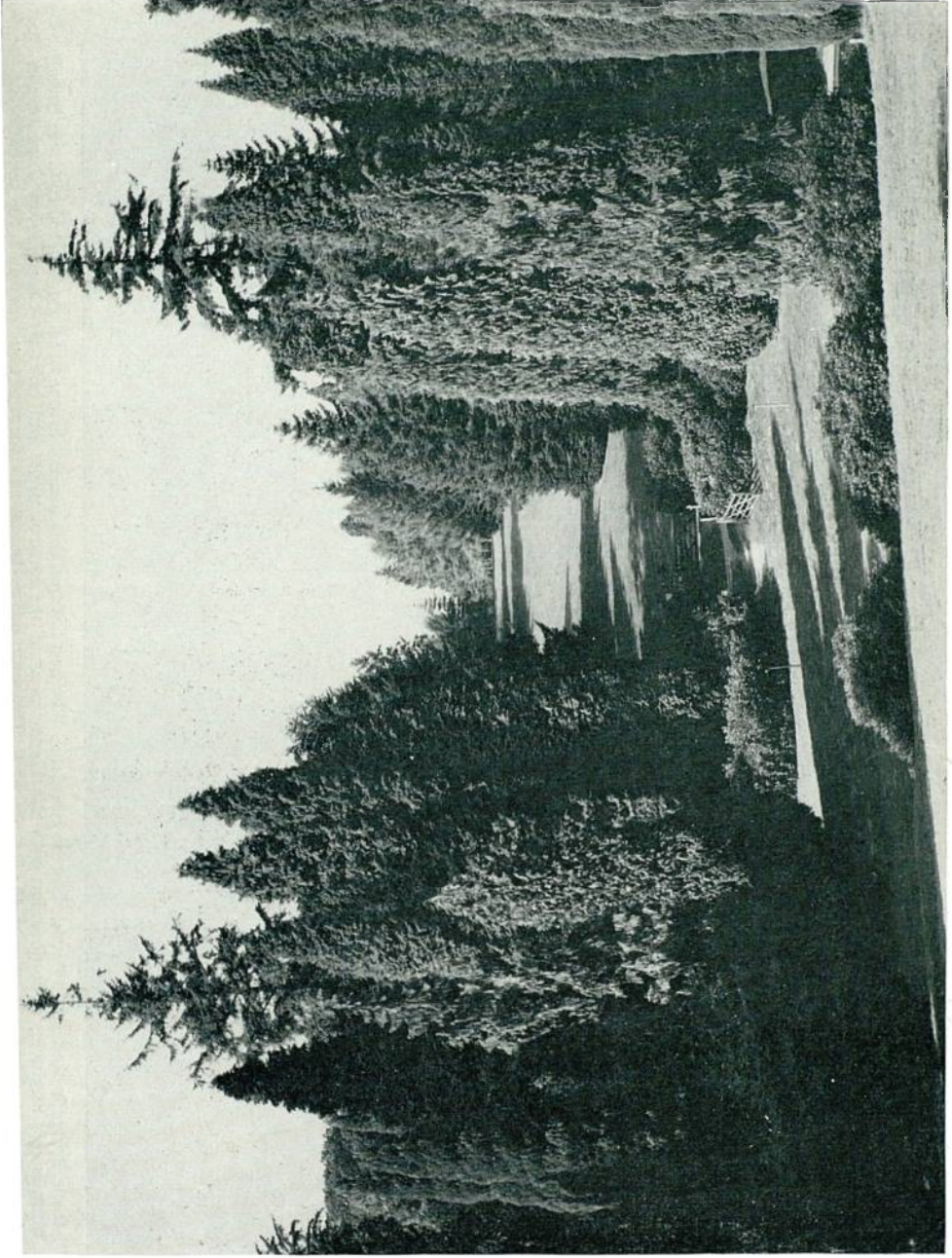


PLATE 6. One of the grassy rides through Bedgebury Pinetum, near Hawkhurst in Kent. The Commission established this leading collection of conifers in 1925. The Pinetum is always open to the public free of charge. C4715.

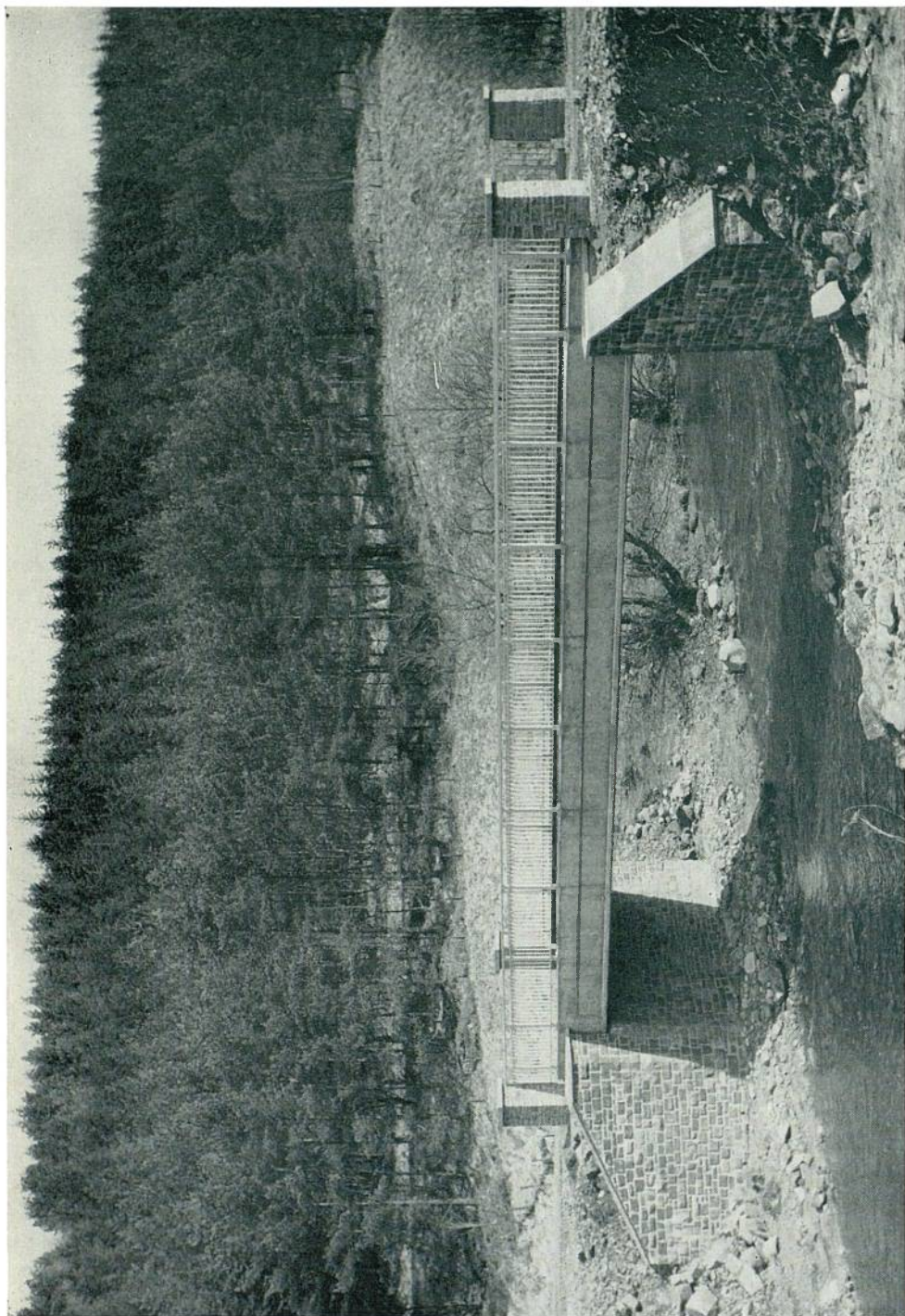


PLATE 7. Rede Bridge in Redesdale Forest, Northumberland. The first lightweight concrete bridge to be constructed in Great Britain. Designed by the Commission's Engineers in conjunction with the Department of the Environment, and built by Commission Engineers in North East England Conservancy. Span 14.8 m, 3.6 m carriage way. The main advantage of this form of construction is the reduction of the deadload which also facilitates handling and placing the deck beams.

PLANTING IN THE YEAR ENDED 31ST MARCH 1971

Table 7

Acres

					Total	New planting	Restocking
Great Britain	...	...	...	...	70,488	57,735	12,753
Conifer	...	...	...	...	70,061	57,424	12,637
Broadleaved	...	...	...	...	427	311	116
England	...	...	...	...	13,411	7,515	5,896
Conifer	...	...	...	...	13,038	7,250	5,788
Broadleaved	...	...	...	...	373	265	108
Scotland	...	...	...	...	48,804	44,062	4,742
Conifer	...	...	...	...	48,767	44,032	4,735
Broadleaved	...	...	...	...	37	30	7
Wales	...	...	...	...	8,273	6,158	2,115
Conifer	...	...	...	...	8,256	6,141	2,115
Broadleaved	...	...	...	...	17	17	—

PROGRESS OF PLANTING FROM 1ST OCTOBER 1961 TO 31ST MARCH 1971

Table 8

Acres

Period*	Great Britain	England	Scotland	Wales
1962	61,948	15,499	34,768	11,681
1963	55,596	12,528	33,107	9,961
1964	54,264	13,205	30,828	10,231
1965	53,684	13,516	30,545	9,623
1966	53,938	13,134	32,748	8,056
1967	52,393	11,165	34,485	6,743
1/10/67 to 31/3/69	68,537	16,496	43,185	8,856
1970	55,579	10,698	38,511	6,370
1971	70,488	13,411	48,804	8,273

* 1962-1967, year ended 30th September.
1970-1971, year ended 31st March.

FIRES IN FORESTS IN THE YEAR ENDED 31ST MARCH 1971

Table 9

	Great Britain	England	Scotland	Wales
Number of fires ...	514	237	75	202
Area burned (acres) ...	430	264	30	136
Value of damage (£) ...	49,866	33,791	2,131	13,944

CAUSES OF FIRES IN THE YEAR ENDED 31ST MARCH 1971

Table 10

Number

	Great Britain	England	Scotland	Wales
Total	514	237	75	202
Public	254	156	17	81
Unknown	116	43	12	61
Adjoining Land	71	16	15	40
Miscellaneous	59	16	25	18
Railways	11	6	4	1
Commission Employees ...	3	—	2	1

AREAS OF PLANTATIONS AND VOLUMES OF TIMBER THINNED
AND FELLED IN THE YEAR ENDED 31ST MARCH 1971

Table 11

	Felled		Thinned		Total Volume Felled and Thinned (Thousand cubic metres)
	Area (acres)	Volume (Thousand cubic metres)	Area (acres)	Volume (Thousand cubic metres)	
Great Britain ...	10,670	802	44,272	760	1,562
England, Total ...	4,937	342	20,602	333	675
<i>Conservancy:</i>					
North-West ...	465	34	4,045	70	104
North-East ...	1,384	103	2,286	34	137
East ...	983	69	8,632	138	207
New Forest and South-East ...	892	45	3,059	44	89
South-West and Dean ...	1,213	91	2,580	47	138
Scotland, Total ...	4,013	323	15,481	296	619
<i>Conservancy:</i>					
North ...	880	70	2,609	69	139
East ...	1,327	80	5,651	93	173
South ...	338	17	5,652	91	108
West* ...	1,468	156	1,569	43	199
Wales, Total ...	1,720	137	8,189	131	268
<i>Conservancy:</i>					
North ...	1,169	93	3,758	56	149
South ...	551	44	4,431	75	119

* The volume felled includes windblown timber, the area of which was included in the 49th Annual Report.

SALES OF TIMBER IN THE YEAR ENDED 31ST MARCH 1971

Table 12

Thousand cubic metres

Description	Great Britain	England	Scotland	Wales
Trees sold standing ...	679·0	205·0	327·0	147·0
Converted* ...	787·7	388·0	294·9	104·8
Round timber and saw logs ...	285·4	139·9	99·6	45·9
Telegraph and other selected poles ...	3·2	1·7	1·2	0·3
Mining timber ...	57·0	38·6	0·7	17·7
Posts and stakes ...	25·3	15·5	5·9	3·9
Pulpwood and boardmill material ...	374·1	160·3	177·7	36·1
Firewood ...	13·5	11·7	1·3	0·5
Miscellaneous ...	29·2	20·3	8·5	0·4
Poles sold in length (other than selected)	26·6	9·9	5·9	10·8

* In addition 5·7 thousand cubic metres were converted and used internally for forest and estate purposes. (England 1·8, Scotland 2·5, Wales 1·4).

CONSTRUCTION OF FOREST ROADS IN THE YEAR ENDED 31ST MARCH 1971
AND TOTAL MILEAGE

Table 13

Miles

	Great Britain	England	Scotland	Wales
Completed to final standard ...	234	84	106	44
Completed to initial standard ...	32	13	18	1
Total mileage in use	9,640	3,772	3,661	2,207

PROPERTIES MANAGED BY THE COMMISSION

Table 14

At 31st March 1971

Number

	Great Britain	England	Scotland	Wales
Forest Properties	6,020	2,241	2,407	1,372
Foresters Houses	1,013	428	396	189
Forest Workers Houses	2,408	891	1,287	230
Forest Workers Holdings	537	184	237	116
Miscellaneous	2,062	738	487	837
Other properties	7,226	2,587	3,255	1,384
Farms and other agricultural subjects	2,095	682	774	639
Residential and miscellaneous ...	2,675	996	1,257	422
Sporting lettings	2,456	909	1,224	323

PUBLIC RECREATIONAL FACILITIES

Table 15

At 31st March 1971¹

Number

	Great Britain	England	Scotland	Wales
Camp sites	9	3	5	1
Picnic sites	177	82	39	56
Forest trails	201	108	74	19
Car parks	134	88	28	18
Information centres	16	6	9	1
Observation towers	19	18	1	—
Forest drives	3	3	—	—

PROGRESS OF THE DEDICATION SCHEME FOR PRIVATE ESTATES
IN THE YEAR ENDED 31ST MARCH 1971

Table 16

	Great Britain		England		Scotland		Wales	
	Number	Area (acres)	Number	Area (acres)	Number	Area (acres)	Number	Area (acres)
<i>Schemes completed:</i>								
Total	3,538	1,047,274	2,243	501,065	867	479,122	428	67,087
At end of previous year ...	3,375	985,823	2,179	493,155	799	430,424	397	62,244
During year ...	163	61,451	64	7,910	68	48,698	31	4,843
<i>Approved or in preparation at end of year... ..</i>								
	265	93,976	87	14,619	131	71,306	47	8,051

PROGRESS OF THE APPROVED WOODLANDS SCHEME FOR PRIVATE ESTATES
IN THE YEAR ENDED 31ST MARCH 1971

Table 17

	Great Britain		England		Scotland		Wales	
	Number	Area (acres)	Number	Area (acres)	Number	Area (acres)	Number	Area (acres)
<i>Schemes completed:</i>								
Total	767	171,946	622	127,827	119	38,776	26	5,343
At end of previous year ...	747	171,914	608	127,444	112	39,026	27	5,444
During year ...	20	32	14	383	7	-250	-1	-101
<i>Approved or in preparation at end of year ...</i>								
	20	4,188	16	3,348	3	796	1	44

AREA PLANTED BY PRIVATE WOODLAND OWNERS FOR WHICH GRANTS WERE PAID
IN THE YEAR ENDED 31ST MARCH, 1971

Acres

Table 18

Country	Total			In Dedicated Woodlands			In Approved Woodlands			With Small Wood Planting Grants		
	All Planting	New Planting	Re-stocking	Total	New Planting	Re-stocking	Total	New Planting	Re-stocking	Total	New Planting	Re-stocking
GREAT BRITAIN												
Total ...	56,104	46,656	9,448	49,840	42,836	7,004	3,027	2,068	959	3,237	1,752	1,485
Conifer ...	53,289	45,256	8,033	48,199	42,145	6,054	2,585	1,824	761	2,505	1,287	1,218
Broadleaved ...	2,815	1,400	1,415	1,641	691	950	442	244	198	732	465	267
ENGLAND												
Total ...	14,028	8,080	5,948	10,574	6,175	4,399	1,497	773	724	1,957	1,132	825
Conifer ...	11,429	6,784	4,645	9,089	5,570	3,519	1,070	534	536	1,270	680	590
Broadleaved ...	2,599	1,296	1,303	1,485	605	880	427	239	188	687	452	235
SCOTLAND												
Total ...	38,426	35,578	2,848	35,866	33,797	2,069	1,478	1,275	203	1,082	506	576
Conifer ...	38,252	35,487	2,765	35,740	33,716	2,024	1,470	1,275	195	1,042	496	546
Broadleaved ...	174	91	83	126	81	45	8	—	8	40	10	30
WALES												
Total ...	3,650	2,998	652	3,400	2,864	536	52	20	32	198	114	84
Conifer ...	3,608	2,985	623	3,370	2,859	511	45	15	30	193	111	82
Broadleaved ...	42	13	29	30	5	25	7	5	2	5	3	2

In addition it is estimated that 902 acres were planted without the aid of grants (England 571, Scotland 284 and Wales 47 acres).

VOLUME OF TIMBER LICENSED FOR FELLING AND THINNING
ON PRIVATE ESTATES IN THE YEAR ENDED 31ST MARCH 1971

Table 19

	Great Britain	England	Scotland	Wales
Total volume (thousand cubic metres)	452	304	123	25
Conifer	197	87	100	10
Broadleaved	255	217	23	15
Number of licences issued	2,048	1,668	264	116

Excludes felling and thinning on Dedicated estates for which no licence is required.

AREA LICENSED FOR CLEAR FELLING ON PRIVATE ESTATES
IN THE YEAR ENDED 31ST MARCH 1971

Table 20

Acres

	Great Britain	England	Scotland	Wales
Total	7,776	6,111	1,344	321
Conditional licences*	5,189	4,127	874	188
Unconditional licences	2,587	1,984	470	133

* Conditional licences require the restocking of the land concerned.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—ENGLAND

Note:

In Tables 21–23 former Crown Woods are indicated by asterisks*.

Table 21

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
NORTH-WEST ENGLAND CONSERVANCY:							
TOTAL	136,867	101,533	12,523	22,811	1,484	532	104
Arden, Warwicks and Worcs	1,982	1,345	625	12	36	4	—
Bagot, Staffs	2,622	2,306	299	17	—	20	—
Blengdale, Cumberland ...	3,111	2,545	138	428	—	5	2
Bowland, Lancs and Yorks	4,544	4,290	64	190	4	5	1
Cannock, Staffs	6,672	6,476	50	146	—	111	14
Dalton, Westmorland and Lancs	1,858	1,433	111	314	25	—	—
Delamere, Cheshire* ...	2,385	2,318	3	64	—	34	7
Dunnerdale, Cumberland and Lancashire	2,355	1,982	22	351	—	—	1
Ennerdale, Cumberland ...	9,514	3,670	153	5,691	50	—	3
Foremark Woods, Derby, Notts and Leics ...	1,099	988	47	64	—	4	—
Goyt, Derbyshire and Cheshire	2,320	843	1,228	249	81	—	—
Greystoke, Cumberland ...	3,049	2,681	101	267	—	20	2
Grizedale, Lancs	7,591	6,748	60	783	—	—	4
Haughmond, Salop	1,515	1,045	440	30	47	—	—
Hope, Derby	2,988	744	—	2,244	—	—	—
Inglewood, Cumberland ...	1,779	1,673	42	64	21	—	1
Kershope, Cumberland ...	13,744	11,589	845	1,310	392	38	15
Kinver, Staffs	739	692	—	47	—	—	—
Launde, Leicester and Rutland	1,152	779	373	—	—	—	—
Lindale, Lancs and Westmorland	3,284	2,142	907	235	81	—	1
Long, Salop	1,584	1,441	99	44	—	—	—
Longtown, Cumberland ...	2,231	610	1,621	—	28	—	—
Matlock, Derby	2,451	1,925	487	39	97	15	—
Mortimer:							
Bucknell, Salop	2,713	2,542	10	161	—	28	4
Ludlow, Hereford and Salop	3,129	3,027	25	77	—	22	6
Shobden, Hereford	2,869	2,775	7	87	—	58	9
Packington, Warwick and Leicester	687	613	74	—	14	—	—
Sherwood:							
Dukeries, Derby, Notts and Yorks	5,483	4,945	392	146	15	38	2
Clipstone, Notts	6,257	5,414	460	383	71	—	9
Mansfield, Notts	4,384	4,033	193	158	—	59	9
Spadeadam, Cumberland and Northumberland ...	18,393	7,458	3,027	7,908	430	—	—
Stiperstones, Salop	1,715	1,176	460	79	40	—	—
Swynnerton, Staffs	2,518	2,400	81	37	1	—	—
Thornthwaite, Cumberland	6,566	5,325	62	1,179	51	54	11
Walcot, Salop	1,584	1,562	15	7	—	17	3

Table 21—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
NORTH-EAST ENGLAND CONSERVANCY:							
TOTAL	250,970	184,089	13,478	53,403	3,986	1,213	137
Ampleforth, Yorks ...	5,736	4,846	235	655	30	35	4
Cawthorne, Yorks ...	4,818	1,885	5	2,928	30	3	1
Chillingham, Northumberland	4,631	1,965	2,157	509	143	—	—
Chirdon, Northumberland	16,206	12,771	941	2,494	380	67	4
Chopwell, Durham and Northumberland* ...	2,234	1,969	89	176	10	22	2
Cleveland, Yorks ...	4,260	3,524	553	183	52	—	1
Cropton, Yorks ...	6,262	5,155	84	1,023	156	17	3
Dalby, Yorks ...	11,278	7,697	391	3,190	—	84	11
Doncaster, Yorks ...	1,905	1,421	398	86	17	5	—
Falstone, Northumberland	17,179	13,064	932	3,183	455	180	16
Hamsterley, Durham ...	9,323	6,812	10	2,501	—	89	5
Harwood, Northumberland	9,842	8,261	1,055	526	52	64	9
Jervaulx, Yorks ⁽¹⁾ ...	3,771	3,008	190	573	37	44	2
Kidland, Northumberland	6,539	4,670	396	1,473	151	—	—
Kielder North, Northumberland	22,942	9,610	1,184	12,148	583	131	27
Knarborough, Yorks ...	3,294	3,040	27	227	27	—	—
Langdale, Yorks ...	12,180	8,780	1,386	2,014	348	10	2
Mounces, Northumberland	24,565	18,449	541	5,575	57	59	8
Osmotherley, Yorks ...	3,904	3,509	86	309	126	22	3
Pickering, Yorks ...	5,085	4,134	205	746	126	7	2
Redesdale, Northumberland	14,083	12,118	233	1,732	25	141	16
Rievaulx, Yorks ...	3,319	2,227	321	771	77	—	—
Rothbury, Northumberland	5,676	4,208	55	1,413	—	30	1
Scawton, Yorks ...	2,298	1,779	450	69	89	10	—
Selby, Yorks ...	1,688	1,443	136	109	12	47	1
Slaley, Northumberland and Durham	3,069	2,701	185	183	—	27	2
Tarset, Northumberland ...	9,400	8,636	119	645	74	—	—
Wark, Northumberland ...	24,200	17,051	618	6,531	907	74	9
Wykeham, Yorks ...	5,901	4,750	91	1,060	2	32	8
Wynyard, Durham ...	1,651	1,260	188	203	—	3	—
York, Yorks ...	3,731	3,346	217	168	20	10	—

Note. (1) Jervaulx includes The Stang.

Table 21—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
EAST ENGLAND							
CONSERVANCY:							
TOTAL	116,287	102,701	7,388	6,198	558	1,428	207
Aldwood, Suffolk ...	8,963	8,567	45	351	13	103	31
Ampthill, Beds and Herts	2,053	1,433	531	89	77	31	—
Bardney, Lincs	5,765	4,223	1,327	215	7	20	1
Bernwood, Oxon and							
Bucks	2,199	1,653	539	7	27	3	—
Bramfield, Herts	1,586	1,072	492	22	84	9	—
Chilterns, Bucks, Oxon,							
Beds and Herts	6,232	5,382	783	67	131	34	3
Hazelborough, Bucks and							
Northants*	2,966	2,627	314	25	—	42	5
Huntingdon, Hunts	906	410	494	2	—	38	—
Kesteven, Lincs and Rut-							
land	5,251	4,569	447	235	35	62	2
Laughton, Lincs	2,471	2,353	17	101	—	—	3
Lavenham, Suffolk	2,016	1,695	314	7	48	9	—
Lynn, Norfolk	2,474	2,301	40	133	17	41	1
Rockingham, Northants							
and Hunts	6,396	5,548	581	267	—	90	2
Salcey, Bucks and							
Northants*	1,468	1,374	84	10	—	70	1
Thetford Chase, Norfolk							
and Suffolk	51,522	46,953	445	4,124	2	635	146
Walden, Essex, Cambs. and							
Herts	1,762	1,510	220	32	55	11	—
Wensum, Norfolk	5,442	4,994	255	193	18	154	6
Wigsley, Lincs and Notts	1,799	1,505	213	81	44	15	2
Willingham, Lincs... ..	2,695	2,540	22	133	—	—	1
Yardley Chase, Beds,							
Northants and Bucks ...	2,321	1,992	225	104	—	61	3

Table 21—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
NEW FOREST AND SOUTH-EAST ENGLAND CONSERVANCY:							
TOTAL	141,752	94,170	6,758	40,824	574	1,057	89
Abinger, Surrey	2,568	2,034	324	210	58	—	—
Alice Holt, Hants and Surrey*	2,575	2,239	22	314	—	52	7
Andover, Hants	1,776	1,599	22	155	—	—	1
Arundel, Sussex	2,609	2,508	2	99	—	—	2
Bedgebury, Kent and Sussex*	3,410	3,084	2	324	—	57	3
Bere, Hants*	2,224	1,898	269	57	32	89	3
Bramshill, Berks and Hants	4,092	3,311	358	423	—	38	5
Brightling, Sussex	2,113	1,789	297	27	20	67	1
Bucklebury, Berks and Hants	1,732	1,527	198	7	22	—	—
Challock, Kent	4,979	4,920	17	42	7	74	7
Chiddingfold, Surrey and Sussex	2,867	2,676	166	25	—	26	2
Friston, Sussex	2,866	2,446	25	395	—	—	1
Hursley, Hants	4,285	3,608	633	44	95	40	1
Maresfield, Kent and Sussex	2,750	1,777	585	388	105	—	—
Micheldever, Hants	4,723	4,527	77	119	—	48	3
New Forest, Hants*	66,851	28,845	1,367	36,639	52	227	34
Orlestone, Kent	1,404	1,367	22	15	7	17	1
Queen Elizabeth Forest, Hants and Sussex ...	4,001	3,556	277	168	30	211	5
Ringwood, Hants and Dorset	7,132	5,832	712	588	1	72	5
Rogate, Sussex	892	801	2	89	—	7	—
St Leonards, Sussex	1,994	1,577	353	64	44	15	1
Shipbourne, Kent and Surrey	2,779	2,073	652	54	68	—	—
Slindon, Sussex	4,994	4,660	52	282	—	—	2
Vinehall, Sussex	1,411	1,374	15	22	7	15	1
Wight, Isle of Wight	4,723	4,142	309	272	26	2	4
Woking Office Grounds ...	2	—	—	2	—	—	—

Table 21—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
SOUTH-WEST ENGLAND AND DEAN CONSERVANCY:							
TOTAL	114,449	99,007	8,215	7,227	909	1,667	138
Bodmin, Cornwall (1) ...	7,219	6,274	598	347	99	47	4
Bradon, Wilts	2,283	1,872	348	63	35	—	1
Brendon, Somerset ...	3,030	2,855	84	91	72	44	5
Bristol, Somerset ...	706	654	3	49	2	20	—
Charmouth, Dorset and Devon	1,206	1,090	59	57	—	15	—
Cotswold, Gloucester and Worcester	1,566	1,349	180	37	5	10	—
Cranborne Chase, Dorset and Wilts (2)	4,342	4,051	237	54	12	12	1
Dartmoor, Devon	3,793	3,176	—	617	—	10	9
Dean Forest, Gloucester, Hereford and Monmouth*	26,976	23,487	1,502	1,987	104	647	58
Dymock, Gloucester and Hereford	1,279	1,265	7	7	—	52	2
Eggesford, Devon	1,206	1,149	37	20	—	49	6
Exeter, Devon	5,943	5,222	575	146	49	59	6
Halwill, Devon and Cornwall	6,580	5,800	264	516	77	217	14
Hartland, Devon and Cornwall	2,699	2,482	153	64	67	27	3
Hereford, Hereford and Gloucester	3,309	2,369	936	4	35	47	4
Honiton, Devon and Somerset	2,526	2,183	299	44	82	—	—
Mendip, Somerset and Wilts	2,805	2,677	49	79	5	35	4
Molton Woods, Devon and Somerset	2,258	1,734	499	25	67	42	1
Neroche, Somerset	3,050	2,134	410	506	84	—	—
Plym, Devon	2,144	2,045	69	30	—	7	1
Poorstock, Dorset and Somerset	2,736	2,344	291	101	—	101	—
Quantock, Somerset	2,771	2,312	106	353	—	39	9
Salisbury, Hants and Wilts	2,952	2,581	366	5	15	27	—
Savernake, Wilts and Berks	6,790	5,982	233	575	—	121	4
Wareham, Dorset	8,430	7,064	581	785	52	—	2
Westonbirt, Gloucester	440	—	—	440	—	—	—
Wilsey Down, Cornwall ...	1,559	1,438	37	84	15	—	1
Wyre, Worcs and Salop ...	3,851	3,418	292	141	32	39	3

Notes (1) Bodmin includes Lands End.
 (2) Cranborne Chase includes Blandford.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—SCOTLAND

Table 22

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
NORTH SCOTLAND CONSERVANCY:							
TOTAL	669,379	249,309	77,553	342,517	14,112	306	139
Achnashellach, Ross ...	7,369	4,325	22	3,022	30	39	3
Affric, Inverness and Ross	67,216	11,873	4,001	51,342	722	—	2
Ardrross, Ross	10,648	8,259	1,171	1,218	386	—	7
Balblair, Sutherland and Ross	15,765	7,586	4,109	4,070	351	—	4
Black Isle, Ross	14,765	13,732	—	1,033	—	77	11
Boblainy, Inverness ...	7,284	6,170	79	1,035	116	—	—
Borgie, Sutherland and Caithness	13,174	4,364	2,086	6,724	576	—	—
Ceannacroc, Inverness ...	11,355	4,213	72	7,070	109	—	—
Clunes, Inverness	12,585	5,360	2,362	4,863	220	—	1
Corrour, Inverness	41,776	3,025	6,862	31,889	645	—	—
Culloden, Inverness and Nairn	5,906	5,649	10	247	—	29	4
Dornoch, Sutherland ...	3,019	2,708	22	289	—	20	1
Farigaig, Inverness	11,194	6,944	1,633	2,617	605	12	6
Fiunary, Argyll	16,737	8,691	2,545	5,501	586	—	5
Glen Garry, Inverness ...	42,004	11,399	3,576	27,029	781	—	7
Glen Hurich, Argyll	15,415	4,512	732	10,171	217	—	3
Glen Righ, Inverness	5,829	3,012	69	2,748	67	—	3
Glen Urquhart, Inverness	19,447	6,788	—	12,659	—	—	6
Helmsdale, Sutherland ...	2,456	1,233	729	494	198	—	—
Hoy Experiments, Orkney	32	32	—	—	—	—	—
Inchnacardoch, Inverness	9,546	4,965	1,292	3,289	99	—	5
Inshriach, Inverness	11,443	7,591	1,826	2,026	52	37	12
Lael, Ross	3,573	2,595	—	978	—	20	4
Leanachan, Inverness and Argyll	27,091	10,762	1,208	15,121	425	—	3
Lewis, Isle of Lewis, Ross	2,110	249	1,530	331	153	—	—
Morangie, Ross and Cromarty	8,688	7,324	287	1,077	163	—	—
Mull, Argyll	37,996	13,159	10,327	14,510	1,885	—	6
Naver, Sutherland	13,052	5,202	2,473	5,377	870	—	—
Port Clair, Inverness	7,681	4,095	188	3,398	57	—	9
The Queen's Forest, Inverness	12,462	3,618	324	8,520	7	—	—
Ratagan, Inverness and Ross	11,333	5,333	1,013	4,987	—	25	16
Rumster, Caithness	6,205	3,835	1,139	1,231	566	—	—
Shin, Sutherland and Ross	69,813	15,464	8,686	45,663	1,008	—	2
Skye, Inverness	48,413	10,072	10,267	28,074	1,124	—	3
Slatadale, Ross	2,288	1,782	106	400	17	27	1
South Strome, Ross	7,490	3,714	1,270	2,506	269	15	4
Strathdearn, Inverness ...	12,492	7,562	1,154	3,776	358	5	5
Strathmashie, Inverness ...	4,814	3,880	138	796	17	—	3
Sunart, Argyll and Inverness	11,046	4,117	1,406	5,523	195	—	—
Torrachilty, Ross	37,867	14,115	2,839	20,913	1,238	—	3

Table 22—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
EAST SCOTLAND CONSERVANCY:							
TOTAL	286,662	210,192	14,985	61,485	4,095	1,201	173
Alltcailleach, Aberdeen ...	4,461	3,865	356	240	183	12	3
Aultmore, Banff	7,414	6,561	754	99	756	—	—
Bennachie, Aberdeen ...	7,656	5,357	45	2,254	—	5	3
Bin, Aberdeen and Banff	8,730	7,989	262	479	45	116	9
Blairadam, Fife and Kinross	4,594	3,242	1,139	213	—	86	8
Clashindarroch, Aberdeen	16,406	13,299	67	3,040	22	136	9
Craigvainean, Perth ...	4,085	3,848	2	235	3	29	6
Culbin, Moray and Nairn	7,740	7,258	146	336	—	78	7
Drummond Hill, Perth ...	6,820	5,501	91	1,228	—	143	12
Drumtochty, Kincardine ...	9,187	6,810	—	2,377	—	99	4
Durris, Aberdeen and Kincardine	6,655	6,205	17	433	5	2	5
Edensmuir, Fife	2,076	1,858	62	156	—	—	11
Elchies, Moray	4,977	4,636	20	321	3	7	2
Fetteresso, Kincardine ...	8,093	6,734	2	1,357	44	12	1
Forest of Deer, Aberdeen and Banff	6,734	6,346	2	386	—	47	8
Glenalmond, Perth	3,747	3,539	35	173	—	10	3
Glenclova, Angus	6,039	3,484	818	1,737	141	—	—
Glendevon, Perth and Kinross	3,427	1,861	1,104	462	227	79	2
Glenisla, Angus and Perth	6,852	5,113	111	1,628	180	20	—
Glenlivet, Banff	11,409	10,149	69	1,191	131	67	4
Kirkhill, Aberdeen ...	2,965	2,884	2	79	—	29	3
Midmar, Aberdeen and Kincardine	7,109	6,793	—	316	42	47	4
Monaughty, Moray	7,910	6,904	67	939	—	37	13
Montreathmont, Angus and Kincardine	4,581	4,507	—	74	32	30	8
Newton and Roseisle, Moray	2,246	1,999	17	230	—	—	3
Pitfichie, Aberdeen ...	7,562	6,697	5	860	5	12	4
Pitmedden, Fife, Perth and Kinross	2,006	1,947	—	59	—	32	2
Rannoch, Perth and Argyll	46,654	11,337	6,442	28,875	1,063	—	2
Rosarie, Banff and Moray	6,534	5,540	660	334	91	5	2
Speymouth, Moray and Banff	13,297	12,467	207	623	94	12	8
Strathardle, Perth	7,942	6,595	712	635	163	—	7
Strathmore, Angus and Perth	3,234	3,175	—	59	—	12	5
Teindland, Moray	3,185	3,010	54	121	—	—	2
Tentsmuir, Fife	3,941	3,665	2	274	—	35	9
Tomashean, Aberdeen ...	10,030	6,662	—	3,368	408	—	2
Tummel, Perth	20,364	12,355	1,715	6,294	457	2	2

Table 22—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
SOUTH SCOTLAND CONSERVANCY:							
TOTAL	400,945	230,968	76,733	93,244	13,729	605	108
Ae, Dumfries	14,513	13,519	502	492	222	133	16
Arcleoch, Ayr	7,606	4,218	2,847	541	559	—	—
Bareagle, Wigtown	5,629	4,786	492	351	217	—	—
Bennan, Kirkcudbright	13,581	11,560	867	1,154	620	—	5
Cardrona, Peebles	1,791	1,769	—	22	—	17	3
Castle O'er, Dumfries and Selkirk	14,001	10,482	2,511	1,008	556	37	12
Changue, Ayr	11,481	6,998	—	4,483	—	—	1
Clatteringshaws, Kirkcudbright	15,835	8,160	3,652	4,023	942	—	2
Clydesdale, Lanark	4,846	2,051	2,437	358	316	10	—
Craik, Roxburgh, Selkirk and Dumfries	10,922	7,230	3,089	603	816	—	1
Dalbeattie, Kirkcudbright	7,057	5,978	637	442	7	27	11
Dalmacallan, Dumfries	8,189	3,672	3,094	1,423	341	—	2
Dundeugh, Kirkcudbright	7,910	6,234	613	1,063	190	—	2
Duns, Berwick	1,797	1,626	156	15	96	—	—
Eddleston Water, Peebles and Midlothian	3,341	1,581	1,436	324	106	—	—
Edgarhope, Berwick and Midlothian	2,417	1,797	106	514	62	52	1
Elibank and Traquair, Selkirk, Peebles and Roxburgh	10,393	7,801	1,416	1,176	166	—	2
Fleet, Kirkcudbright	10,900	6,106	1,455	3,339	331	40	1
Garcrogo, Kirkcudbright... ..	3,153	2,001	1,048	104	245	—	1
Garraries, Kirkcudbright... ..	13,685	5,985	4,223	3,477	420	30	—
Glenbreck, Peebles	12,145	2,263	3,801	6,081	410	—	—
Glentress, Peebles	5,258	3,474	1,213	571	92	42	4
Glen Trool, Kirkcudbright and Ayr	53,939	26,495	2,350	25,094	1,023	2	5
Greskine, Dumfries and Lanark	19,821	7,240	7,935	4,646	279	40	7
Kilsture, Wigtown	3,848	3,299	376	173	344	—	2
Kirroughtree, Kirkcudbright	15,702	10,302	72	5,328	825	—	7
Kyle, Ayr	9,269	2,128	6,533	608	198	—	—
Laurieston, Kirkcudbright	7,754	7,591	15	148	20	7	2
Mabie, Kirkcudbright and Dumfries	7,527	6,801	232	494	521	37	6
Moffat Water, Dumfries and Selkirk	6,731	3,462	2,728	541	820	—	—
Newcastleton, Roxburgh and Dumfries	8,560	8,434	—	126	91	52	13
Penninghame, Wigtown	12,679	6,442	4,680	1,557	413	—	—
Selm Muir, Midlothian and West Lothian	3,232	2,061	1,025	146	252	64	—
Starr, Ayr	17,572	3,719	3,235	10,618	67	—	—
Stenton, East Lothian, Midlothian and Berwick	3,472	1,913	1,403	156	27	15	—
Tairlaw, Ayr	11,607	5,619	104	5,884	321	—	—
Upper Nithsdale, Ayr and Dumfries	10,186	3,210	5,281	1,695	514	—	—
Wauchope, Roxburgh	22,551	12,961	5,169	4,421	1,300	—	2
Bush Nursery, Midlothian	15	—	—	15	—	—	—
Whittinghame Seed Orchard, East Lothian	30	—	—	30	—	—	—

Table 22—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
WEST SCOTLAND CONSERVANCY:							
TOTAL	486,623	213,122	72,299	201,202	12,125	2,629	199
Achaglachgach, Argyll (1)	9,482	7,359	890	1,233	324	7	4
Achray, Perth	13,255	8,182	1,413	3,660	437	203	7
Ardgartan, Argyll and Dunbarton	17,841	6,531	976	10,334	331	59	12
Barcaldine, Argyll	10,443	5,595	1,465	3,383	351	79	14
Benmore, Argyll	9,301	3,215	59	6,027	10	114	10
Carradale, Argyll	12,422	5,258	988	6,176	20	5	1
Carron Valley, Stirling	9,215	7,527	781	907	—	161	6
Corlarach, Argyll	4,668	3,380	524	764	237	—	—
Creran, Argyll	8,869	3,628	272	4,969	316	—	—
Cumbernauld, Dunbarton, West Lothian, Stirling and Lanark	2,824	2,105	282	437	247	—	—
Devilla, Fife, Clackmannan and Stirling	3,986	3,539	84	363	—	89	5
Eredine, Argyll	12,751	5,021	4,856	2,874	630	47	4
Fearnoch, Argyll	3,494	2,464	685	345	57	114	4
Garadhban, Stirling and Dunbarton (2)	18,373	6,314	1,124	10,935	400	245	4
Garelochhead, Dunbarton	5,570	2,852	1,332	1,386	200	7	—
Glenbranter, Argyll (3)	22,554	10,198	410	11,946	—	334	29
Glencoe, Argyll	8,777	2,938	2,711	3,128	—	—	2
Glendaruel, Argyll	8,901	4,302	598	4,001	218	—	—
Glenduror, Argyll	9,627	3,247	1,495	4,885	610	47	4
Glenfinart, Argyll	8,711	3,247	15	5,449	—	59	7
Glenorchy, Argyll (4)	53,235	8,360	14,355	30,520	1,310	—	—
Glenrickard, Arran, Bute-shire	19,991	8,239	4,690	7,062	601	22	—
Inverinan, Argyll	18,597	9,622	1,285	7,690	462	37	9
Inverliever, Argyll*	14,555	5,167	2,049	7,339	274	237	12
Kilmichael, Argyll (5)	13,796	8,799	361	4,636	294	7	1
Kilmory, Argyll	9,855	8,298	—	1,557	—	59	1
Knapdale, Argyll	16,467	7,801	1,779	6,887	10	259	23
Leapmoor, Renfrew	1,465	1,263	138	64	146	—	1
Loch Ard, Perth and Stirling	24,513	16,151	1,260	7,102	20	339	30
Loch Etive, Argyll	4,141	3,128	49	964	175	—	—
Loch Goil, Argyll	14,777	4,589	1,287	8,901	442	20	1
Minard, Argyll	20,720	5,127	8,891	6,702	736	—	1
Raera, Argyll	6,986	1,248	1,947	3,791	423	—	—
Saddell, Argyll	5,696	2,718	129	2,849	208	—	—
St Fillans, Perth (6)	5,128	3,497	398	1,233	27	—	—
South Kintyre, Argyll	18,840	6,665	3,890	8,285	1,171	—	—
Strathyre, Perth	11,513	6,148	59	5,306	—	79	7
Tighnabruaich, Argyll	10,727	4,164	2,004	4,559	447	—	—
Torrie, Perth and Stirling	3,138	2,496	12	630	20	—	—
Whitelee, Ayr and Lanark	11,416	2,740	6,756	1,920	971	—	—
Chapelhall	3	—	—	3	—	—	—

- Notes: (1) Achaglachgach includes Ardfin.
(2) Garadhban includes Rowardennan.
(3) Glenbranter includes Strathlachlan.
(4) Glenorchy includes part Glendochart.
(5) Kilmichael includes Kilmartin.
(6) St. Fillans includes part Glendochart.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—WALES

Table 23

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
NORTH WALES CONSERVANCY TOTAL	194,539	155,232	4,694	34,613	1,703	922	149
Aberhirnant, Merioneth ...	5,026	3,835	363	828	99	—	1
Aeron, Cardigan	5,951	5,585	141	225	59	12	1
Beddgelert, Caernarvon and Merioneth	3,647	2,659	299	689	84	12	2
Ceiriog, Denbigh and Salop	2,772	2,646	20	106	27	—	—
Ceri, Montgomery, Salop and Radnor (1)	4,665	4,571	—	94	—	49	20
Clocaenog, Denbigh and Merioneth	17,804	15,136	7	2,661	—	104	12
Clwyd, Denbigh and Flint	2,419	2,103	20	296	—	—	1
Coed Sarnau, Radnor ...	8,070	7,040	247	783	—	—	4
Coed-y-Brenin, Merioneth	22,505	15,467	136	6,902	195	99	28
Cynwyd, Merioneth ...	1,940	1,730	—	210	—	25	3
Deudraeth, Merioneth ...	3,435	2,459	37	939	32	2	—
Dyfi:							
Bryncynfil,							
Montgomery	2,202	1,826	30	346	—	27	2
Corris, Merioneth and Montgomery	10,381	8,276	494	1,611	106	35	10
Twymyn, Montgomery Valley, Merioneth and Montgomery	2,353	2,086	42	225	—	—	—
Dyfnant, Montgomery and Denbigh	8,080	7,146	126	808	222	30	11
Elwy, Denbigh and Flint	8,006	5,854	84	2,068	5	35	1
Gwydyr, Caernarvon and Denbigh	2,730	2,501	165	64	35	25	1
Hafren, Montgomery ...	10,060	7,646	180	2,234	3	178	19
Llangollen, Denbigh and Flint	10,682	8,688	84	1,910	50	—	4
Lledr, Caernarvon ...	1,695	1,658	—	37	25	—	—
Lleyn, Caernarvon ...	4,989	3,610	47	1,332	42	25	1
Machno, Caernarvon ...	3,049	2,464	123	462	12	59	—
Mathrafal, Montgomery and Salop	4,959	3,109	81	1,769	—	34	5
Menai, Caernarvon and Anglesey	3,904	3,553	156	195	15	25	2
Myherin, Cardigan ...	1,888	1,535	84	269	94	—	—
Newborough, Anglesey ...	6,067	3,919	230	1,918	17	12	1
Penllyn, Merioneth ...	2,770	2,152	—	618	—	—	1
Radnor, Radnor and Hereford	4,695	3,368	1,169	158	289	—	—
Rheidol, Cardigan ...	5,975	5,686	22	267	—	77	12
Talesin, Cardigan and Montgomery	4,960	3,751	235	974	287	—	1
Tarenig, Cardigan and Montgomery	6,694	4,329	—	2,365	—	5	—
Ystwyth, Cardigan ...	5,212	4,290	30	892	—	10	1
Chirk Depot, Denbigh ...	4,952	4,554	42	356	5	42	5
	2	—	—	2	—	—	—

Note: (1) Ceri formerly Cedewain and Kerry.

Table 23—continued

	Land use at 31st March 1971 (acres)				During Year 1970/71		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (acres)		Production (000 cu. m.)
					New planting	Re-stocking	
SOUTH WALES							
CONSERVANCY:							
TOTAL	196,939	156,585	17,597	22,757	4,453	1,194	119
Brechfa, Carmarthen ...	13,331	11,589	294	1,448	264	92	16
Brycheiniog, Brecon, Hereford and Radnor (1) ...	4,040	3,660	86	294	—	—	10
Caeo, Carmarthen... ..	6,047	4,552	974	521	148	—	7
Chepstow, Monmouth ...	2,627	2,108	356	163	25	64	8
Cilgwyn, Brecon and Carmarthen	2,501	2,353	106	42	—	5	1
Coed Abertawe, Glamorgan	1,903	1,722	72	109	161	27	—
Coed Gwili, Cardigan and Carmarthen	4,984	4,571	114	299	57	89	4
Coed Taf Fawr, Brecon ...	4,097	3,415	91	591	—	—	—
Coed Morgannwg:							
Crynant, Glamorgan ...	4,048	3,371	148	529	101	—	1
Cymer, Glamorgan ...	13,774	11,004	442	2,328	329	10	—
Margam, Glamorgan ...	12,042	10,428	213	1,401	57	52	5
Pelena, Glamorgan ...	2,941	2,800	22	119	22	15	1
Rheola, Glamorgan ...	10,512	8,738	462	1,312	126	111	11
Coed-y-Rhaiadr, Brecon ...	7,841	4,238	1,374	2,229	306	—	—
Crychan, Brecon and Carmarthen	9,430	8,674	32	724	—	22	12
Draethen, Glamorgan and Monmouth	2,214	1,713	316	185	124	—	—
Ebbw, Monmouth	10,250	8,448	487	1,315	74	200	2
Glasfynydd, Brecon and Carmarthen	3,588	3,482	15	91	39	—	4
Irfon, Brecon	6,462	5,266	114	1,082	245	—	—
Llanddowror, Carmarthen and Pembroke	2,098	1,977	106	15	27	32	—
Monmouth, Monmouth ...	1,809	1,582	178	49	54	—	—
Mynydd Du, Brecon and Monmouth	3,650	3,173	25	452	—	32	7
Pembrey, Carmarthen ...	4,693	2,918	84	1,691	44	32	2
Preseli, Pembroke and Carmarthen	3,299	2,674	380	245	185	42	—
Rhondda, Glamorgan ...	9,623	4,107	4,772	744	588	—	—
Slebech, Pembroke ...	2,078	1,908	49	121	44	—	—
St. Gwynno, Glamorgan ...	5,454	4,720	10	724	22	109	4
St. Tydfil, Glamorgan ...	3,460	2,266	729	465	291	15	—
Taf Fechan, Brecon ...	1,624	1,547	35	42	57	—	—
Tair Onen, Glamorgan ...	3,946	3,328	336	282	15	17	1
Talybont, Brecon	3,946	3,620	166	160	—	10	5
Teifi, Carmarthen, Cardigan and Pembroke ...	1,329	1,159	153	17	15	—	—
Tintern, Monmouth ...	5,216	4,544	146	526	57	176	15
Tywi, Cardigan, Brecon and Carmarthen ...	19,413	12,553	4,609	2,251	959	—	—
Wentwood, Monmouth ...	2,669	2,377	101	191	17	42	3

Note: (1) Brycheiniog formerly Brecon and Hay.

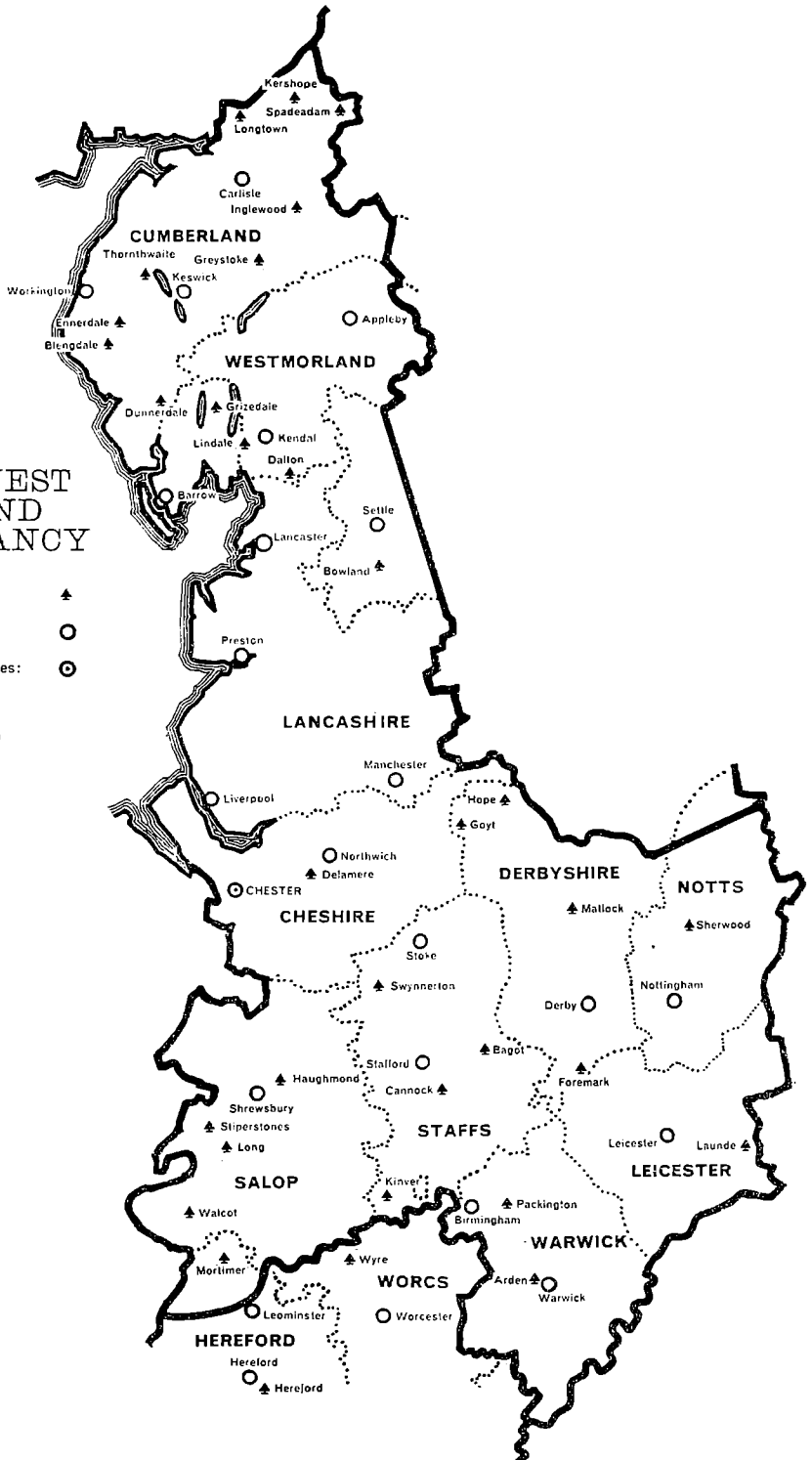
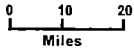
APPENDIX IV

MAPS

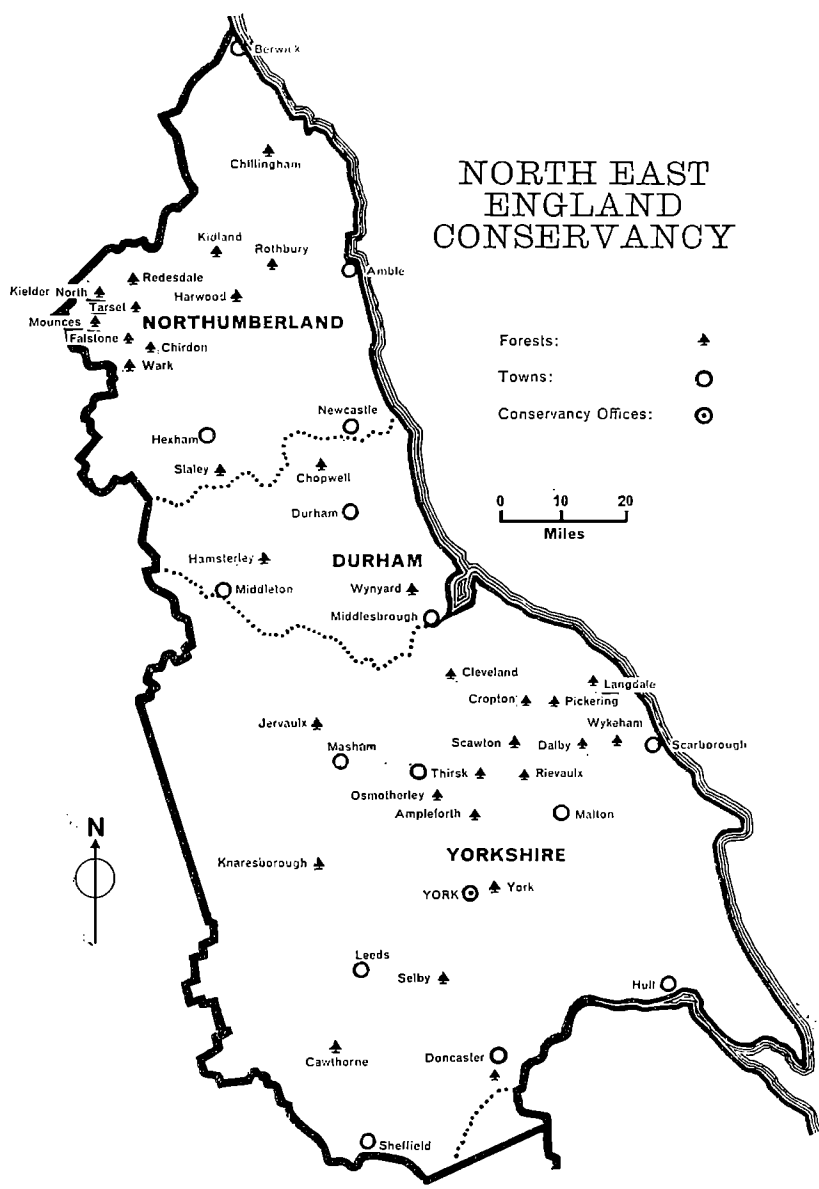
**Maps showing the situation of the Commission
Forests and the boundaries of the Conservancies
as at 31st March 1971 follow**

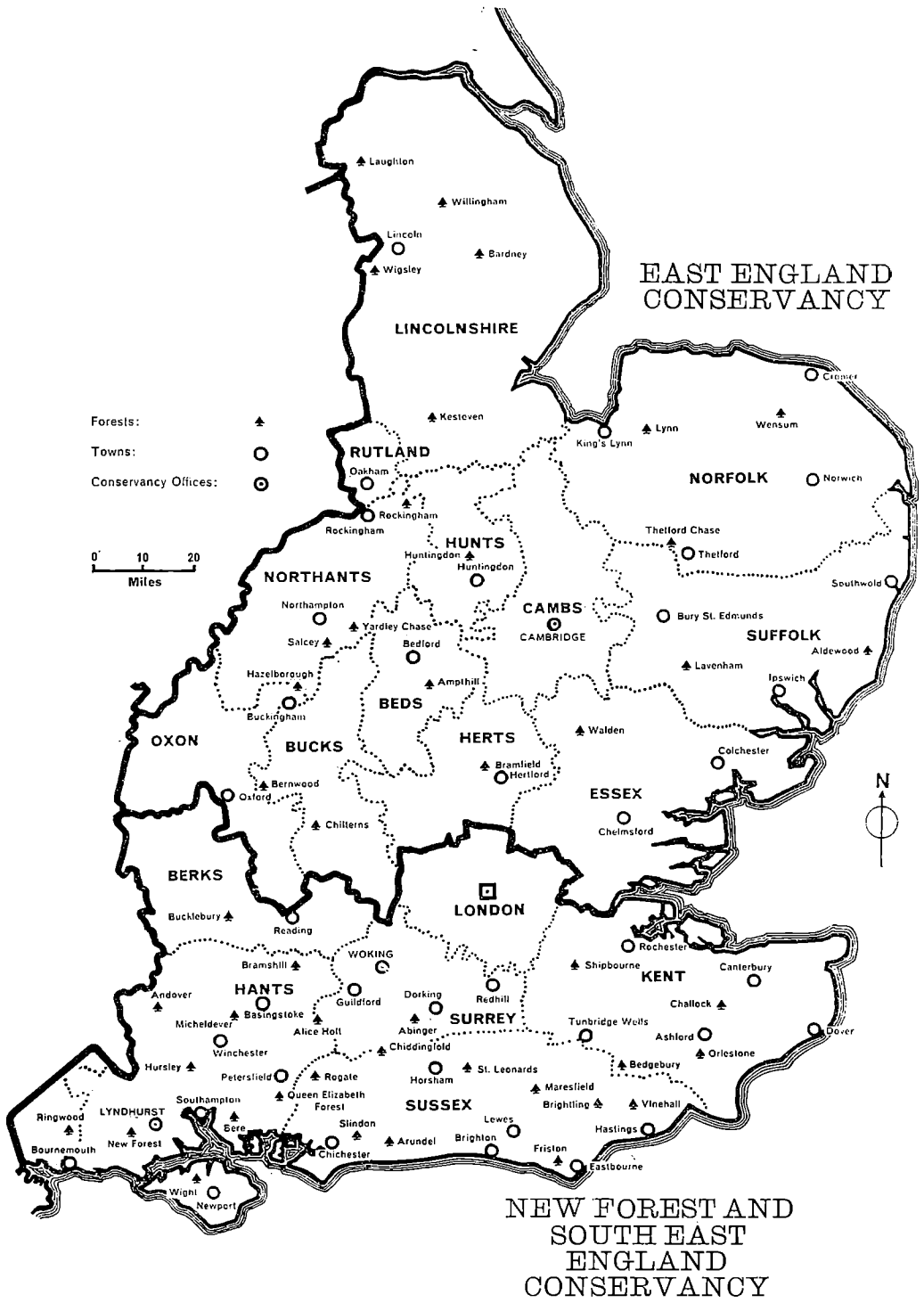
NORTH WEST ENGLAND CONSERVANCY

- Forests: ▲
 Towns: ○
 Conservancy Offices: ⊙



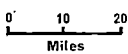
NORTH EAST ENGLAND CONSERVANCY



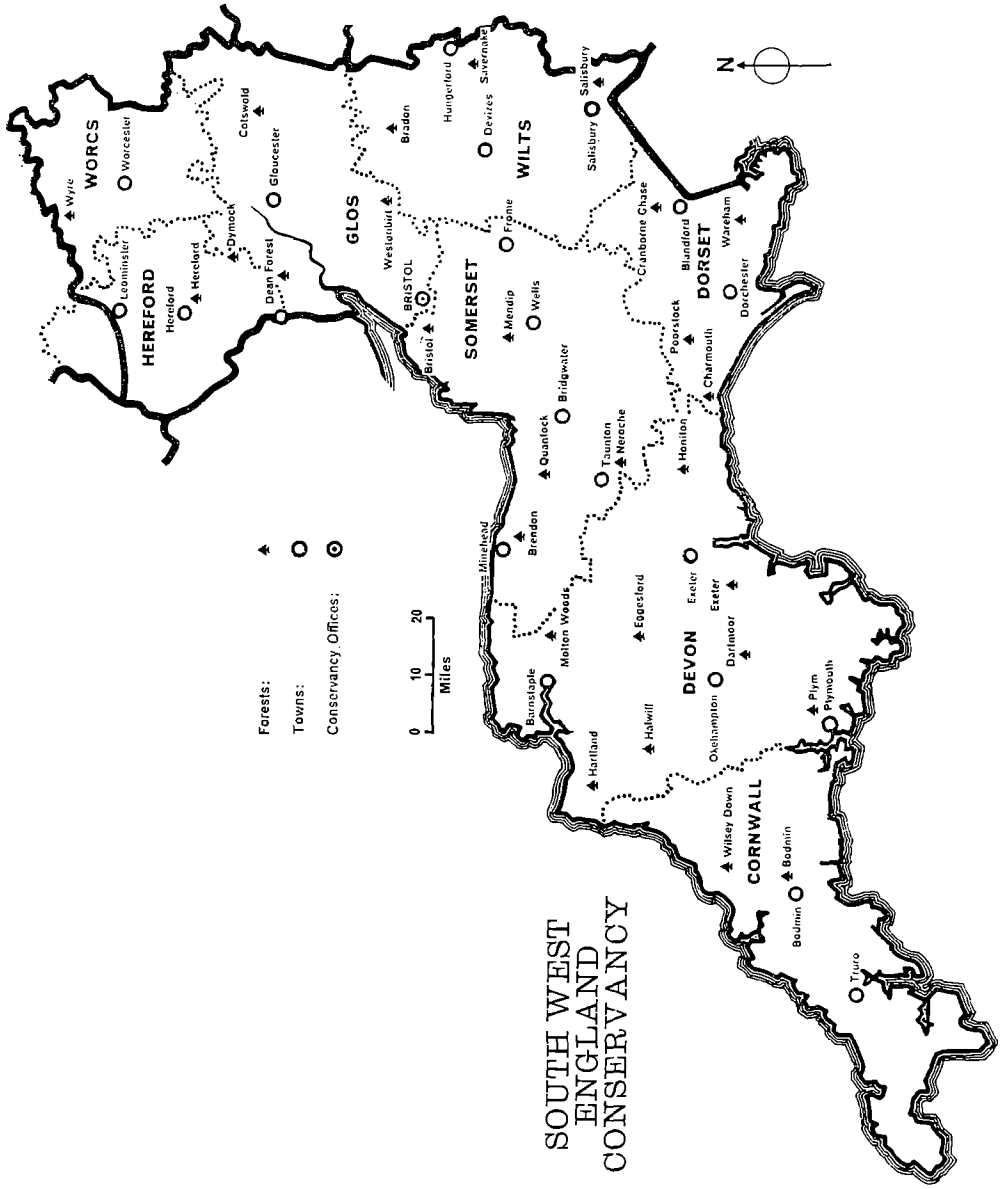


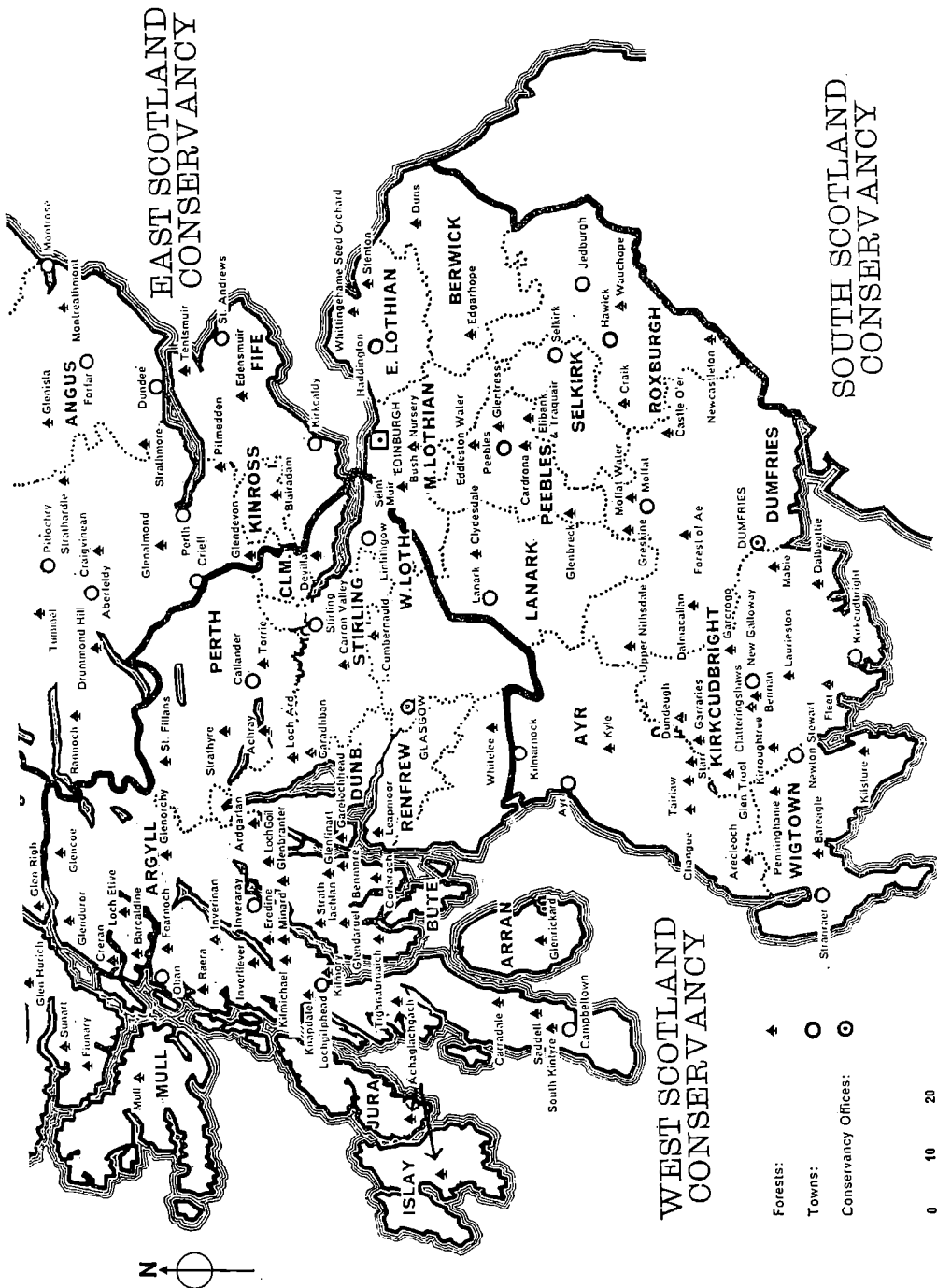
**EAST ENGLAND
CONSERVANCY**

- Forests: ▲
- Towns: ○
- Conservancy Offices: ⊙



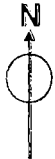
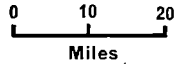
**NEW FOREST AND
SOUTH EAST
ENGLAND
CONSERVANCY**





NORTH WALES CONSERVANCY

- Forests: ▲
- Joint Scheme: ■
- Towns: ○
- Conservancy Offices: ⊙



SOUTH WALES CONSERVANCY

ADDRESSES OF THE MAIN OFFICES OF THE FORESTRY COMMISSION

Headquarters of the Forestry Commission:

25, Savile Row, London, W1X 2AY (01-734 0221)
Priestley Road, Basingstoke, Hampshire. (025-6 3181)

Senior Officer for Scotland:

25, Drumsheugh Gardens, Edinburgh, 3. (031-225 4782)

Senior Officer for Wales:

Churchill House, Churchill Way, Cardiff, CF1 4TU. (022-2 40661)

Director of Research:

Alice Holt Lodge, Wrecchesham, Farnham, Surrey. (042-04 2255)
Northern Research Station, Roslin, Midlothian, Scotland. (031-445 2176)

Conservancy Offices

England:

North-West: Dee Hills Park, Chester, CH3 5AT. (024-4 24006)
North-East: Briar House, Fulford Road, York, YO1 4DB. (090-4 24684)
East: Brooklands Avenue, Block D, Cambridge. (022-3 54495)
New Forest and South-East: The Queen's House, Lyndhurst, Hants.,
SO4 7NH. (042-128 2801)
South-West and Dean Forest: Flowers Hill, Brislington, Bristol BS4 5JY.
(027-2 78311)

Scotland:

North: 60, Church Street, Inverness. (046-3 32811)
East: 6, Queen's Gate, Aberdeen, AB9 2NQ. (022-4 33361)
South: Greystone Park, Moffat Road, Dumfries. (038-7 2425)
West: 20, Renfrew Street, Glasgow, G2 3BG (041-332 7261)

Wales:

North: Victoria House, Victoria Terrace, Aberystwyth, Cardiganshire.
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ACCOUNTS 1970-71

BALANCE SHEET of the Forestry Commission Forestry Enterprise as at 31st March 1971 and **ACCOUNTS** for the year ended 31st March 1971, together with the Report of the Comptroller and Auditor General thereon.

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FORESTRY COMMISSION

FORESTRY ENTERPRISE

BALANCE SHEET AS AT 31 MARCH 1971

As at
31 March 1970
£

	£	£	£
SOURCE OF FUNDS			
CAPITAL			
Grant in aid:			
To 1 April 1970	209,310,220		
Additions during year ...	<u>11,901,523</u>		
	221,211,743		
Less Notional selective employment tax refund (from 5/9/66)	<u>3,829,306</u>		
		217,382,437	
Interest accrued (Note 1)		215,861,718	
Assets acquired without payment (Note 2)		<u>1,757,376</u>	
Surplus on disposal of land (Note 3) ...		603,193	
		<u>435,604,724</u>	
Less Profit and Loss Account (Statement 5)		<u>13,689,502</u>	
			421,915,222
PROVISIONS			
Pensions and gratuities (Note 4) ...		13,218,672	
Fire insurance (Note 5)		<u>255,982</u>	
			<u>13,474,654</u>
			<u>£435,389,876</u>

EMPLOYMENT OF FUNDS

<p>58,327,743 <u>15,000</u></p> <p>2,280,559 2,035,454 <u>266,199</u></p> <p>4,582,212 1,420,227 <u>3,161,985</u></p> <p>229,082,853 107,268,768 <u>336,351,621</u></p> <p><u>£397,856,349</u></p>	<p>FIXED ASSETS (Note 6)</p> <p>UNQUOTED INVESTMENTS (Note 7)</p> <p>NET CURRENT ASSETS</p> <p>Current Assets:</p> <p>Stocks and work in progress (Note 8) 2,113,111</p> <p>Debtors and sundry debit balances ... 2,088,434</p> <p>Cash at banks and in hand 479,154</p> <hr/> <p>4,680,699</p> <p>1,704,830</p> <hr/> <p>2,975,869</p> <p>...</p> <p>...</p> <p>...</p> <p>Plantations in course of formation (Statement 1 and Note 9)</p> <p>Plantations in production (Statement 2 and Note 9)</p> <p>(Expectation value of plantations in production £81,000,000—Note 10. 31 March 1970: £75,000,000)</p> <hr/> <p>370,087,182</p> <hr/> <p>£435,389,876</p>
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The notes on pages 88 to 92 form part of these Accounts

J. A. Dickson
Accounting Officer
25 August 1971

I have examined the above Balance Sheet and the annexed Statements 1 to 8, in accordance with the provisions of the Exchequer and Audit Department Act 1921. I have obtained all the information and explanations that I have required, and I certify, as the result of my audit, that in my opinion this Balance Sheet and the Statements 1 to 8 are properly drawn up so as to exhibit a true and fair view of the state of affairs and transactions of the services to which they relate. I have no observations to make upon them.

Exchequer and Audit Department
14 October 1971

B. D. Fraser
Comptroller and Auditor General

FORESTRY COMMISSION

ACCOUNT OF PLANTATIONS IN COURSE OF FORMATION
FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous year</i>		£	£
	OPENING BALANCE at 1 April 1970		
	1,355,000 acres at cost analysed to:		
<i>120,615,640</i>	Cost excluding interest		127,155,747
<i>87,393,473</i>	Interest		101,927,106
			<hr/>
<i>208,009,113</i>			229,082,853
	ADDITIONS DURING YEAR	£	
<i>1,320</i>	Plantations acquired ...		2,931
	Formation expenditure:		
<i>631,557</i>	Preparation of ground, including ploughing	616,991	
<i>989,181</i>	Planting, including cost of plants ...	1,268,484	
<i>580,289</i>	New drains and fences	602,113	
<i>157,621</i>	Beating up, including cost of plants ...	183,383	
<i>831,323</i>	Weeding	700,028	
<i>1,094,332</i>	Overhead expenses (Statement 6)	1,194,018	
<i>316,823</i>	Estate expenses (Statement 7)	310,753	
			<hr/>
<i>4,601,126</i>			4,875,770
	Maintenance expenditure:		
<i>749,134</i>	Maintenance of drains and fences	752,787	
<i>619,678</i>	Brashing and cleaning	587,634	
<i>164,537</i>	Fertilisation of planta- tions	174,290	
<i>250,765</i>	Protection against fire...	219,915	
<i>410,706</i>	Protection against wild- life	397,251	
<i>37,187</i>	Protection against fungi and diseases ...	48,523	
<i>29,150</i>	Miscellaneous ...	140,895	
<i>1,108,879</i>	Overhead expenses (Statement 6)	1,087,443	
<i>283,896</i>	Estate expenses (Statement 7)	277,188	
			<hr/>
<i>3,653,932</i>			3,685,926
<i>460,607</i>	Rent and rates on land		507,742
<i>16,385,912</i>	Interest on capital ...		18,550,532
			<hr/>
<i>233,112,010</i>			27,622,901
			<hr/>
			256,705,754

Account of Plantations in course of Formation—*continued*

<i>Previous year</i>		£	£	£
	DEDUCTIONS DURING YEAR			
	Plantations transferred to Plantations in Pro- duction Account			
3,787,961	(Statement 2) ...	4,602,881		
107,039	Plantations destroyed by fire	41,182		
3,154	Plantations damaged by other causes ...	27,436		
50,703	Plantations sold ...	67,153		
80,300	Sundry receipts ...	106,928		
<hr/> 4,029,157		<hr/>		4,845,580
	CLOSING BALANCE at 31 March 1971			
	1,415,000 acres at cost analysed to:			
127,155,747	Cost excluding interest		133,707,073	
101,927,106	Interest		118,153,101	
<hr/> £229,082,853			<hr/>	<hr/> £251,860,174 /

FORESTRY COMMISSION

ACCOUNT OF PLANTATIONS IN PRODUCTION
FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous year £</i>		£	£
	OPENING BALANCE at 1 April 1970		
	428,900 acres at cost analysed to:		
32,624,213	Cost excluding interest ...	34,602,445	
64,428,235	Interest	72,666,323	
		<hr/>	
97,052,448	(<i>Expectation value: £75,000,000</i>)		107,268,768
	ADDITIONS DURING YEAR		
3,178	Plantations acquired	1,435	
	Plantations transferred from Plantations in Course of Formation		
	Account (Statement 1)	4,602,881	
3,787,961	Maintenance of roads and bridges ...	626,964	
551,267	Pruning	9,173	
7,370	Rent and rates on land	137,157	
125,050	Overhead expenses (Statement 6) ...	628,330	
778,116	Estate expenses (Statement 7)	103,522	
101,885	Interest on capital	9,027,573	
7,944,353		<hr/>	
			15,137,035
110,351,628			<hr/>
			122,405,803
	DEDUCTIONS DURING YEAR		
7,018	Plantations destroyed by fire	8,684	
—	Plantations destroyed by other causes	523	
40,403	Plantations sold	19,121	
	Plantations thinned and felled, transferred to Harvesting Trading Account (Statement 3 and Note 9) ...	4,150,467	
3,035,439		<hr/>	
3,082,860			4,178,795
	CLOSING BALANCE at 31 March 1971		
	432,900 acres at cost analysed to:		
34,602,445	Cost excluding interest	36,497,213	
72,666,323	Interest	81,729,795	
		<hr/>	
£107,268,768	(<i>Expectation value: £81,000,000</i>)		£118,227,008
			<hr/>

FORESTRY COMMISSION

HARVESTING TRADING ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous year £</i>		<i>£</i>	<i>£</i>
	INCOME		
5,645,494	Sale of produce	6,742,008	
60,672	Value of produce used in the Commission's forests	58,821	
<hr/>		<hr/>	
5,706,166			6,800,829
	<i>Less</i> EXPENDITURE		
2,398,224	Marking, measuring, harvesting, extraction and conversion	2,519,552	
606,793	Carriage and other expenses	733,246	
1,364,654	Overhead expenses (Statement 6)	1,538,385	
290,668	Estate expenses (Statement 7)	281,095	
<hr/>		<hr/>	
4,660,339		5,072,278	
148,199	<i>Less</i> Increase in stocks	50,588	
<hr/>		<hr/>	
4,512,140			5,021,690
	Surplus before inclusion of the cost of plantations thinned and felled		1,779,139
1,194,026	<i>Deduct</i> Cost of plantations thinned and felled transferred from Plantations in Production Account (Statement 2):		
	<i>Cost excluding Interest</i>	<i>Interest</i>	<i>Total</i>
	<i>£</i>	<i>£</i>	<i>£</i>
1,176,639	Thinnings 490,028	993,709	1,483,737
	Clear		
1,858,800	Fellings 806,501	1,860,229	2,666,730
<hr/>	<hr/>	<hr/>	<hr/>
3,035,439	1,296,529	2,853,938	4,150,467
<hr/>			<hr/>
<i>£1,841,413</i>	DEFICIT on Trading carried to Profit and Loss Account (Statement 5)		<i>£2,371,328</i>

FORESTRY COMMISSION

ESTATE MANAGEMENT ACCOUNT FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous year</i>		Total	Estate retained by Ministers	Other Agricultural Subjects	Other Buildings and Subjects	Fishing and Shooting	Public Camp Sites	Other Recreational Facilities and Amenity
£		£	£	£	£	£	£	£
	EXPENDITURE							
59,625	Repairs and maintenance	72,973	—	13,893	35,852	—	13,816	9,412
148,097	Rent and rates	160,206	75,316	76,189	3,490	130	4,766	315
74,614	Depreciation	64,563	6,043	9,013	38,171	—	9,758	1,578
136,600	Miscellaneous	205,216	—	2,780	8,536	4,930	26,335	162,635
4,121	Variation in stocks	4,823	—	4,823	—	—	—	—
387,569	Overhead expenses (Statement 6)	512,031	11,881	68,955	151,290	33,978	36,538	209,389
60,123	Estate expenses (Statement 7)	70,968	1,669	13,235	27,168	6,425	5,044	17,427
143,877	Interest on capital	149,591	17,006	16,959	96,497	—	14,884	4,245
1,014,626	Total expenditure	1,240,371	111,915	205,847	361,004	45,463	111,141	405,001
	Less INCOME							
381,822	Rents receivable	424,428	39,932	80,457	224,915	79,124	—	—
148,302	Sundry receipts	160,712	—	36	—	—	97,410	63,266
530,124	Total income	585,140	39,932	80,493	224,915	79,124	97,410	63,266
£484,502	DEFICIT	655,231	71,983	125,354	136,089	33,661	13,731	341,735
						<i>Surplus</i>		

FORESTRY COMMISSION
PROFIT AND LOSS ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous</i>			
<i>year</i>			
<i>£</i>			<i>£</i>
1,841,413	Deficit on Harvesting Trading Account (Statement 3)		2,371,328
484,502	Deficit on Estate Management Account (Statement 4)		655,231
500	Preference Shares held in Parkend Saw Mills Ltd. written off		—
<hr/>			<hr/>
2,326,415		<i>£</i>	3,026,559
2,674	<i>Less</i> Income from Joint Management Scheme	11,291	
750	Income from Unquoted Investments ...	750	
34,279	Surplus on Disposal of Buildings ...	68,204	
		<hr/>	80,245
<hr/>			<hr/>
2,288,712			2,946,314
8,454,476	<i>Add</i> Debit Balance from previous year ...		10,743,188
<hr/>			<hr/>
£10,743,188	Debit Balance carried forward to next year ...		£13,689,502
			<hr/>

Against "Joint Management Scheme" is shown the income during the year, being a half share of the net surplus from the afforestation scheme at the Lake Vyrnwy estate in North Wales, belonging to the City of Liverpool.

FORESTRY

STATEMENT OF OVERHEAD EXPENSES

<i>Previous year</i>		<i>£</i>	<i>£</i>	<i>£</i>	Plantations in Course of Formation	
					<i>Total</i>	<i>Forma- tion</i>	Main- tenance
		<i>£</i>	<i>£</i>	<i>£</i>	<i>£</i>	<i>£</i>
	LOCAL SUPERVISION					
1,879,427	Salaries and national insurance	2,006,796	2,006,796			
340,832	Travelling and subsistence	348,545	348,545			
265,419	Office expenses	281,965	281,965			
378,347	Provision for pensions and gratuities	391,249	391,249			
		<u>2,864,025</u>	<u>3,028,555</u>			
	7,848 <i>Less</i> Miscellaneous income	13,053	13,053			
		<u>2,856,177</u>	<u>3,015,502</u>	861,322	821,394	
	DISTRICT AND AREA SUPERVISION					
308,108	Salaries and national insurance	355,466	355,466			
36,776	Travelling and subsistence	45,022	45,022			
76,180	Office expenses	85,518	85,518			
64,689	Provision for pensions and gratuities	67,044	67,044			
		<u>485,753</u>	<u>553,050</u>	86,545	92,426	
	CONSERVANCY OFFICE ADMINISTRATION					
1,034,277	Salaries and national insurance	1,116,235	1,116,235			
76,944	Travelling and subsistence	94,856	94,856			
85,180	Office expenses	85,236	85,236			
11,625	Depreciation	23,447	23,447			
31,680	Losses, compensation and bad debts	37,489	37,489			
80,475	Miscellaneous expenses	112,197	112,197			
165,884	Provision for pensions and gratuities	173,145	173,145			
64,253	Provision for fire insurance	65,952	65,952			
		<u>1,550,318</u>	<u>1,708,557</u>			
	28,017 <i>Less</i> Miscellaneous income	32,801	32,801			
		<u>1,522,301</u>	<u>1,675,756</u>	130,745	93,463	
	HEADQUARTERS ADMINISTRATION					
894,125	Salaries and national insurance	999,879	999,879			
86,675	Travelling and subsistence	94,211	94,211			
229,879	Office expenses	241,085	241,085			
110,304	Training establishments	86,012	86,012			
13,749	Depreciation	16,387	16,387			
4,237	Losses, compensation and bad debts	1,324	1,324			
315,462	Miscellaneous	314,216	314,216			
155,289	Provision for pensions and gratuities	163,657	163,657			
		<u>1,809,720</u>	<u>1,916,771</u>			
	70,910 <i>Less</i> Miscellaneous income	66,205	66,205			
		<u>1,738,810</u>	<u>1,850,566</u>	115,406	80,160	
		<u>£6,603,041</u>	<u>£ 7,094,874</u>	1,194,018	1,087,443	

COMMISSION

FOR THE YEAR ENDED 31 MARCH 1971

Plantations in Production	Harvesting	Estate Expenses	Estate Management	Distribution Accounts	Acquisition and Construction of Fixed Assets	Disposals of Land and Buildings	Forest Authority
£	£	£	£	£	£	£	£
54,548	788,224	65,163	104,242	136,516	138,934	—	45,159
12,535	81,892	3,133	70,813	14,128	41,190	—	150,388
273,447	215,536	174,258	213,168	220,509	65,632	114,543	174,455
287,800	452,733	65,090	123,808	145,908	104,745	141,041	333,875
628,330	1,538,385	307,644	512,031	517,061	350,501	255,584	703,877

FORESTRY COMMISSION
ESTATE EXPENSES ACCOUNT FOR THE YEAR ENDED 31 MARCH 1971

Previous year										
£	EXPENDITURE	Total	Forest workers' Houses	Forest workers' Holdings	Hostels and Bothies	Foresters' Houses	Admini- strative and Other Buildings	Repair Depots		
		£	£	£	£	£	£	£	£	£
323,984	Repairs and maintenance	358,210	142,633	51,191	2,320	83,696	73,542	4,828		
103,379	Rent and rates	82,320	2,024	10,645	563	7,401	59,246	2,441		
193,873	Depreciation	198,979	71,042	21,904	1,749	43,282	57,817	3,185		
49,478	Miscellaneous	48,893	5,285	511	8,852	27,026	7,028	191		
265,990	Overhead expenses (Statement 6)	307,644	107,668	55,565	3,074	71,596	54,286	15,455		
628,487	Interest on capital	633,393	272,018	52,339	2,306	185,089	108,158	13,483		
1,565,191	Total expenditure	1,629,439	600,670	192,155	18,864	418,090	360,077	39,583		
112,215	Less INCOME	114,467	80,969	33,498						
97,581	Rents receivable	103,011	976	206	7,931	39,562	54,321	—	15	
	Sundry receipts									
209,796	Total income	217,478	81,945	33,704	7,931	39,562	54,321	15		
£1,355,395	NET COST	£1,411,961	518,725	158,451	10,933	378,528	305,756	39,568		
	ALLOCATION OF NET COST									
	Plantations in Course of Formation:									
316,823	Formation	310,753								
283,896	Maintenance	277,188								
101,885	Plantations in Production	103,522								
290,668	Harvesting	281,095								
60,123	Estate Management	70,968								
150,154	Distribution Accounts	192,139								
	Acquisition and Construction of Fixed Assets	110,409								
102,890	Disposals of Land and Buildings	26,683								
15,362	Forestry Authority	39,204								
33,594										
£1,355,395		£1,411,961								

FORESTRY COMMISSION

STATEMENT OF LABOUR ONCOST

FOR THE YEAR ENDED 31 MARCH 1971

<i>Previous year</i>		£
962,837	National insurance, holidays and sick leave	975,269
415,122	Wet time	420,105
543,577	Transport of workers and travelling and subsistence	877,230
63,585	Depreciation	—
430,855	Miscellaneous	47,175
423,215	Provision for pensions and gratuities	420,096
<hr/>		<hr/>
2,839,191		2,739,875
93,331	Less Miscellaneous income	105,443
<hr/>		<hr/>
£2,745,860		£2,634,432

DISTRIBUTION

	Plantations in Course of Formation:	
742,478	Formation	650,027
634,999	Maintenance	629,702
102,042	Plantations in Production	109,137
638,057	Harvesting	497,011
30,407	Estate Expenses	27,193
28,283	Estate Management	41,217
261,718	Distribution Accounts	369,699
307,876	Acquisition and Construction of Fixed Assets	310,446
<hr/>		<hr/>
£2,745,860		£2,634,432

FORESTRY COMMISSION
FORESTRY ENTERPRISE
NOTES ON THE ACCOUNTS

1. INTEREST

Provision has been made for interest chargeable on the amount shown in the Balance Sheet under Capital, at rates fixed from time to time by the Treasury as follows:

- (a) Forestry Fund advances and value of property (other than New and Dean Forests) acquired under Forestry (Transfer of Woods) Orders, prior to April 1933, at rates operative from 11 April 1933;
- (b) On advances and value of property acquired during the period April 1933 to September 1947, at the rate operative on the day of advance or acquisition;
- (c) On advances from 30 September 1947 to 30 September 1956, at the rate operative on the last day of the year in which advanced;
- (d) On advances from 30 September 1956 to 31 March 1971 at the average rate for the period of account in which advanced;
- (e) On interest accrued, at the average rate for the year ended 31 March 1971.

Interest has been charged on the New and Dean Forests from 1 October 1947 only.

*Previous
year*
£

		£
	The provision made for the year to 31 March 1971 was £29,109,002, this sum being shown in the accounts as follows:	
25,779,242	(i) As separate entries entitled "Interest on capital" in:	
	Account of Plantations in Course of Formation (Statement 1)	18,550,532
16,385,912	Account of Plantations in Production (Statement 2)	9,027,573
7,944,353	Estate Management Account (Statement 4) ...	149,591
143,877	Estate Expenses Account (Statement 7) ...	633,393
628,487	(ii) The balance as an element of the rent and rates heading in the accounts shown in (i) above ...	747,913
676,613		

2. ASSETS ACQUIRED WITHOUT PAYMENT

*As at
31 March
1970*
£

	Value of properties, etc., including New and Dean Forests acquired under Forestry (Transfer of Woods) Orders 1924-61	1,522,343
1,565,592	Value at 21 September 1939 of properties acquired under Forestry (Transfer of Woods from Secretary of State for Air) Order 1939	8,633
8,633	Value of properties acquired by transfer from Ministry of Agriculture, Fisheries and Food under Section 4 of Forestry Act 1945	29,402
29,402	Value of timber acquired by transfer from H.M. Board of Admiralty under Section 4 of Forestry Act 1945 ...	8,393
8,393	Value of timber acquired by transfer from the Board of Trade	40,225
40,225	Gifts	148,380
148,375		
£1,800,620		£1,757,376

Notes on the Accounts (*continued*)

3. SURPLUS ON DISPOSAL OF LAND

<i>Previous</i>								
<i>year</i>								
£								£
385,111	Balance at 1 April 1970	...	...	...	...	...	...	489,031
103,920	Add surplus arising from disposal of land during the year	...	...	...	...	...	...	114,162
<u>£489,031</u>	Balance at 31 March 1971...							<u>£603,193</u>

£255,553 was received during the year from the sale of land, and the cost of the land with the apportioned capitalised expenses was £141,391.

4. PROVISION FOR PENSIONS AND GRATUITIES

<i>Previous</i>								
<i>year</i>								
£								
12,339,538	Balance at 1 April 1970	...	...	...	...	...	...	12,836,191
856,137	Provision made during year	...	...	...	...	...	...	877,230
77,068	Contributions received during year	...	...	...	...	...	...	100,903
401,035	Interest charged during year	...	...	...	...	...	...	417,176
<u>13,673,778</u>								<u>14,231,500</u>
837,587	Less Payments made during year							1,012,828
<u>£12,836,191</u>	Balance at 31 March 1971...						...	<u>£13,218,672</u>

5. PROVISION FOR FIRE INSURANCE

<i>Previous</i>								
<i>year</i>								
£								
278,885	Balance at 1 April 1970	...	...	...	...	...	...	238,124
64,253	Provision during year	...	...	...	...	...	...	65,952
<u>343,138</u>								<u>304,076</u>
105,014	Less Losses during year	...	...	...	...	...	...	48,094
<u>£238,124</u>	Balance at 31 March 1971...						...	<u>£255,982</u>

Fire insurance has been charged on growing stock, buildings and stores on the basis of the average losses over the previous four and a half years.

Notes on the Accounts: (continued)

6. FIXED ASSETS

	Land	Roads and Bridges	Buildings	Vehicles Machines and Equipment	Office Furniture and Equipment	Total	31 March 1970 Total
Cost at 1 April 1970	£ 9,884,502	£ 35,467,527	£ 13,731,669	£ 5,706,159	£ 379,247	£ 65,169,104	£ 61,627,474
Additions ...	1,372,362	2,418,744	447,454	1,230,794	28,851	5,498,205	4,592,876
Disposals and Transfers ...	53,140	403	306,165	649,048	5,263	1,014,019	1,051,246
Cost at 31 March 1971	11,203,724	37,885,868	13,872,958	6,287,905	402,835	69,653,290	65,169,104
Accumulated depreciation at 1 April 1970	—	—	3,301,657	3,306,671	233,033	6,841,361	6,483,768
Provision for year	—	—	266,717	825,587	28,324	1,120,628	1,056,061
Disposals and Transfers ...	—	—	108,465	510,308	1,751	620,524	698,468
Accumulated depreciation to 31 March 1971	—	—	3,459,909	3,621,950	259,606	7,341,465	6,841,361
Net book value at 31 March 1971	£11,203,724	£37,885,868	£10,413,049	£2,665,955	£143,229	£62,311,825	
Net book value at 31 March 1970	£9,884,502	£35,467,527	£10,430,012	£2,399,488	£146,214		£58,327,743

Depreciation of buildings, vehicles, machines, furniture and equipment is provided by charges to operating costs of the amounts required to write off the original cost of the assets by equal annual instalments over their estimated effective lives.

Notes on the Accounts (*continued*)

7. UNQUOTED INVESTMENTS

<i>As at</i>			
<i>31 March</i>			
<i>1970</i>			
	£		£
		Unquoted Investment comprises:	
		Debentures in Cowal Ari-Sawmilling Co. Ltd. at cost	
		(Commissioners' valuation at 31 March 1971	
<i>£15,000</i>	£15,000	...	£15,000
		...	
		...	
		...	
		...	
		...	
		...	
		...	

8. STOCKS AND WORK IN PROGRESS

<i>As at</i>			
<i>31 March</i>			
<i>1970</i>			
	£		£
<i>977,766</i>	Felled Timber		<i>1,028,355</i>
<i>710,786</i>	Nursery ...		<i>530,113</i>
<i>592,007</i>	Other ...		<i>554,643</i>
<i>£2,280,559</i>			<i>£2,113,111</i>

Stock is valued at the lower of cost including an appropriate amount for overheads and estimated net realisable value. Work in progress is valued at cost including an appropriate amount for overheads.

9. TRANSFER OF COSTS BETWEEN ACCOUNTS

The cost of plantations transferred from the Plantations in Course of Formation Account to the Plantations in Production Account has been calculated by applying costs per acre, assessed by reference to the available data as to the historical costs of plantations of different ages, to the area of the plantations transferred. Transfers from the Plantations in Production Account to the Harvesting Trading Account in respect of thinnings and clear fellings have been similarly based on assessed costs per acre which, in the absence of any historical basis for apportioning the cost of growing trees during the rotation, have been apportioned by reference to the pattern of expected financial yields at current market prices throughout the rotation.

10. EXPECTATION VALUE OF PLANTATIONS IN PRODUCTION

The expectation value has been arrived at by calculating:

- (a) Future expenditure on maintenance and road construction using 1966 costs and estimated programmes;
- (b) Revenue from sales of forest produce by application of 1966 standing sale prices to forecasts of future production;

and discounting both the future expenditure and revenue at the average interest rate (5 per cent) at which the Commission has been charged.

The expectation value at 31 March 1971 of the plantations in production emerges as follows:

		£m
(i)	Present worth of future revenue from plantations in production established at 31 March, 1971 calculated at 1966 market prices	109
(ii)	Present worth of future expenditure on these woodlands at 1966 costs	28
(iii)	Expectation value (i) less (ii) ...	81

Notes on the Accounts (*continued*)

11. AUDIT FEES

The sum of £4,300 was paid to Exchequer and Audit Department during the year as an audit fee for the examination of the Trading Account and the Appropriation Account for the Financial Year ended 31 March 1970. The audit fees paid in the previous year were £4,100.

12. EMOLUMENTS OF THE FORESTRY COMMISSIONERS

		£	
Chairman received	...	5,125	
Commissioners received	...	29,954	
		<hr/>	
Total emoluments of		£35,079	(£33,650 in the previous year)

The emoluments paid were within the following annual scales:

	<i>Year ending 31 March 1971</i>	<i>Previous year</i>
£1— £2,500	5 (Part time)	5 (Part time)
£2,501— £5,000	—	1 (Part time)
£5,001— £7,500	4 (includes 1 Part time)	4
£7,501—£10,000	1	—

13. EMPLOYEES' REMUNERATION

No employee of the Forestry Commission received emoluments exceeding £10,000.

14. FUTURE CAPITAL EXPENDITURE

Future Capital expenditure on Fixed Assets in 1971/72 authorised by the Commissioners amounts to £5,499,000 (against £4,494,000 for 1970/71).

15. CONTINGENT LIABILITIES

Contingent liabilities exist at 31 March 1971 for damage caused by the Commission to other persons' property, the estimated sum amounting to £4,000 (£3,000 at 31 March 1970).

SELECTED
FORESTRY COMMISSION PUBLICATIONS

REPORT

Report on Forest Research, 1971 £1·60 (£1·70½)

GUIDES

Snowdonia Forest Park (revised 1969) 32½p (38p)
Kilmun Arboretum (Argyll) 10p (12½p)
Westonbirt in Colour (Glos.) 10p (12½p)

BULLETIN

No. 44 Operational Research and the Managerial Economics
of Forestry £1·55 (£1·62½)

FOREST RECORDS

No. 77 Hedgehogs 12½p (15p)
No. 78 Loading and Unloading Timber Lorries 30p (32½p)
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LEAFLETS

No. 5 Fomes annosus 15p (17½p)
No. 19 Elm Disease (Ceratocystis ulmi) 8p (10½p)

BOOKLETS

No. 23 Timber! Your Growing Investment 32½p (39p)
No. 24 Forestry in the British Scene 50p (56½p)
No. 28 Gwydyr Forest in Snowdonia (A History) 40p (45½p)
No. 30 Metric Conversion Tables and Factors for Forestry 50p (55½p)
No. 34 Forest Management Tables (Metric) £1·60 (£1·70½)

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