

The logo consists of a dashed rectangular border containing the text "Forestry Commission" in a smaller font above the word "ARCHIVE" in a larger, bold, sans-serif font.

Forestry Commission
ARCHIVE

A photograph of a forest landscape. In the foreground, there are numerous small, young evergreen trees growing in patches of snow. The ground is covered with a mix of snow and low-lying brown vegetation. In the background, a dense stand of tall, mature evergreen trees rises against a clear blue sky. The trees have dark trunks and green foliage.

Forestry Commission

59th Annual Report and Accounts 1978-79

Front Cover

Natural regeneration from the old pines in a remnant of the ancient Caledonian forest at Glen Affric.

(E4742)

Fifty-Ninth Annual
Report and Accounts of the
Forestry Commission
for the year ended
31st March 1979

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*

*Ordered by The House of Commons to be printed
29th January 1980*

LONDON
HER MAJESTY'S STATIONERY OFFICE
£5.75 net

Previous Reports

1977-78 HC 108 (1978-79)

1976-77 HC 168 (1977-78)

1975-76 HC 1 (1976-77)

FORESTRY COMMISSION

231, Corstorphine Road
Edinburgh, EH12 7AT

2 November 1979

To:

The Rt Hon PETER WALKER MBE, MP,
Minister of Agriculture, Fisheries and Food

The Rt Hon GEORGE YOUNGER MP,
Secretary of State for Scotland

The Rt Hon NICHOLAS EDWARDS MP,
Secretary of State for Wales

Gentlemen

In pursuance of Section 45 of the Forestry Act 1967, I have the honour to transmit the 59th Annual Report of the Forestry Commissioners which covers the year ended 31 March 1979.

I am, Gentlemen,
Your obedient Servant,
(Sgd) DAVID MONTGOMERY
Chairman

The Forestry Commissioners and Senior Staff at 31st March 1979

Forestry Commissioners

Mr J. Mackie, *Chairman*

Mr G. D. Holmes, *Deputy Chairman and Director General*

Captain D. S. Bowser JP

The Rt Hon J. D. Gibson-Watt MC, DL

Mr D. R. Hicklin OBE

Mr J. M. Hunter MC

Mr D. A. Mithen

Mr J. D. Pollock

Mr G. G. Stewart CB, MC, TD

Sir Ralph Verney BT., KBE, JP, DL

Senior Staff

Secretary: Mr P. J. Clarke

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

Director (Research and Development): Mr D. R. Johnston

Director (Private Forestry and Land Use Planning): Mr A. Morrison

Director (Estate Management): Mr J. R. Booth MC

Director (Forest Management): Mr J. N. Kennedy

Controller of Finance: Mr C. F. Turquand FCA

Deputy Establishment Officer: Mr M. P. Shapcott

Conservators

England

North West: Mr J. H. James

North East: Mr J. A. Spencer

East: Mr R. M. Hewitt

New Forest and South East: Mr C. D. Begley

South West and Dean Forest: Mr L. C. Troup

Scotland

North: Mr R. G. Cathie

East: Mr I. A. D. Grant

South: Mr E. J. M. Davies

West: Mr D. Y. M. Robertson

Wales

North: Mr R. T. Bradley

South: Mr J. W. L. Zehetmayr VRD

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Acknowledgements

The cover and other pictures were taken from photographs in the Forestry Commission collection.

General Review

Review of the Wood Production Outlook in Britain

1. In our last Report we gave prominence to the review we had commissioned from a group of officials, drawn mainly from our own staff, of the wood production outlook in Britain up to the middle of the next century. The review group's report was circulated as a consultative document in March 1978 in order to stimulate debate. We were most encouraged by the widespread interest it aroused and the constructive comments we received from over 100 individuals and organisations concerned with forestry and the environment. In general, there was broad support for the wood resource arguments and the case for expansion set out in the report, although it was recognised that decisions on the extent and rate of expansion would have to await the outcome of further discussions with agricultural and environmental interests.

2. These views were largely endorsed by the Home Grown Timber Advisory Committee, but we concluded that before making recommendations to Ministers it would be prudent to wait for the publication of a number of papers on related topics which we knew were being prepared. Those published by the end of the year under report included the White Paper *Farming and the Nation* and a policy statement on *Agriculture and Forestry* by the National Farmers' Union of Scotland. Still awaited were the report of Lord Northfield's Committee of Inquiry into *The Acquisition and Occupancy of Agricultural Land*, a topic paper on *Conservation and the Countryside Heritage* by the Countryside Review Committee (an interdepartmental committee under the chairmanship of the Department of the Environment), a paper on *Nature Conservation and Forestry* by the Nature Conservancy Council, a statement by the Countryside Commission of their policy towards forestry, and the study by the Centre for Agricultural Strategy on *A Forestry Strategy for the UK*.

Commission Policy Booklets

3. The Commission's objectives were set out in full in our Report for 1973-74. We also published a shortened version of them in a small booklet which has been in great demand. When a reprint of this booklet was required last autumn, we took the opportunity to up-date and expand the supporting commentary, although the substance of the objectives themselves has not been altered. The new text is reproduced as Appendix V to this Report and will be issued in booklet form.

4. We have also been working on two new Commission statements on landscape design and nature conservation. The first of these is now complete and is reproduced at Appendix VI to this Report; it will be issued in booklet form in June 1979 to coincide with the publication of another Forestry Commission Booklet *The Landscape of Forests and Woods* by our former landscape consultant,

Dame Sylvia Crowe. The statement on nature conservation is still being prepared.

The Commission's Finances

Public Accounts Committee

5. As foreshadowed in last year's Report, the Director General, as Accounting Officer, was examined by the Public Accounts Committee on 21 June 1978 following the report by the Comptroller and Auditor General on the accounts of the Forestry Enterprise for the year ended 31 March 1977 and the quinquennial review and revaluation relating to the period 1972-1977.

6. The Committee indicated that they had some reservations about certain aspects of the quinquennial review, particularly with regard to the validity of the plantations' valuation in the longer term and of the target rate as a measure of absolute performance. They commented that the annual comparison with standards afforded a more immediate measure of performance and that the planting and restocking subsidy provided an indication of the extent to which new plantings were likely to fall short of a 3 per cent return. They regarded the realistic rate of return of $1\frac{1}{2}$ per cent to 2 per cent over the whole estate as very low and considered it important that every effort should be made to control costs, maximise revenue and ensure that new purchases were fully justified; they added that any way in which the costs to the Exchequer of the public investment in forestry could be made even clearer in the accounts would be welcome. It has now been agreed that the forestry subsidy comprising the difference between the required rate of return set for public sector trading and the Commission's target rate of return will be shown in a separate Note to the Accounts, and this has been done in the 1978-79 Accounts at page 97.

7. Further details of the Committee's observations are given in paragraph 81. The Committee's full report is contained in the *Ninth Report from the Committee of Public Accounts, Session 1977-78**; the Treasury response is in the *Treasury Minute on the Reports from the Committee of Public Accounts, Session 1977-78***.

Grant-in-Aid

8. The computer processing our accounts was shut down towards the end of the year by industrial action which delayed the payment of bills amounting to over £3.2 million. Consequently, the call on funds was substantially less than expected, amounting to £29.3 million (after adjusting for changes in the working balance). This represented an increase of £4.6 million (19 per cent) over 1977-78.

9. Payments of £65.6 million showed an increase of £4.6 million (13 per cent) over the previous year. This increase was mainly due to the continuing impact of inflation and pay awards, increased funds for land acquisition and a substantial rise in the level of payments to private woodland owners, partly offset by the delayed payments already mentioned. Receipts rose by £0.9 million (2 per cent) to £36.8 million. This was entirely the result of improvements in miscellaneous income (recreation, rents etc.); income from timber was marginally lower than in 1977-78, reflecting the generally depressed market for most of the year. The statement of Forestry Fund receipts and payments, together with notes and explanations, appears at Table 1 of Appendix IX.

* HC622 (1978-79), HMSO, £4.00 net.

** Cmnd 7402, HMSO, £0.70 net.

Private Forestry

Returning Confidence

10. We expressed the hope in last year's Report that the decline in private planting would be arrested as a result of the grant and fiscal measures introduced by the Government to restore confidence in the private sector. We are pleased to report that the total area planted with grants during the year was 30 per cent higher than in the previous year, and there is every sign that a further increase can be expected in the 1979 planting season. Details are given in paragraph 86.

Consultative Procedures

11. The consultation arrangements for private forestry proposals introduced in October 1974 have now had ample time to settle down, and we think it an appropriate time to review their operation in the light of experience. Two years ago we reported that, in the 2½ years up to 31 March 1977, only three Basis III Dedication Scheme applications had given rise to problems requiring reference to Regional Advisory Committees and subsequently to Ministers. The position at 30 September 1978 was that some 82 per cent of the applications cleared during the previous four years were accepted as submitted, while some 17 per cent were accepted after modifications following local discussion. The number of problem cases that needed to be referred to Regional Advisory Committees over the four year period was eight, of which five were subsequently referred to Ministers.

12. It has been suggested that such statistics do not show the complete picture because some owners are dissuaded from making applications by the reactions of Commission staff to their proposals on initial informal enquiry, to the effect that objections are likely from other land use interests. Our enquiries indicate, however, that these suggestions are unfounded. It also appears that the completion of consultations within the two-month time limit is being achieved in all but the most difficult cases and that the limit serves a useful purpose in keeping delays to a minimum.

13. The basic principle underlying the consultative process for private forestry proposals is the reconciliation of views aimed at producing, in a spirit of give and take, a solution acceptable to all the interested parties, with as little resort to cumbersome bureaucratic procedures as possible. We are convinced by the results of our examination that this approach is achieving a good measure of success.

State of the Wood Market

An Uneven Year

14. The year has been one of quite marked changes in the market for small diameter wood, from a position of low demand to one where we were hard pressed to meet requirements. This was because wood production in the forests was seriously disrupted by bad winter weather and the road haulage strike, just as demand showed a strong improvement. Deliveries of pulpwood increased overall by 10 per cent, but despite a marked improvement towards the end of the year, deliveries for particle board fell by 11 per cent because of the severe curtailment in the industry's wood requirements earlier in the year. The market for sawlogs was active throughout and there was a record increase of 26 per cent in the volume supplied. The total volume harvested was 2 per cent more than last year.

Fort William Pulp Mill

15. As a result of investigations conducted during the year under review, Wiggins Teape Ltd. announced on 11 April 1979 that a substantial part of their chemical sulphite pulping plant at Fort William was nearing the end of its effective life and that the plant had no viable future. As a consequence, they had concluded that chemical pulping at Fort William would need to be discontinued in about a year's time unless a viable alternative could be found to justify continuing the existing pulping operations for an interim period. Consideration is being given to mechanical pulping integrated with newsprint production as an alternative to the existing chemical pulping. We hope that a solution to the present problem can be found since closure of the mill would have serious implications for employment and the marketing of the increasing timber supplies in the region.

Consultancy Study

16. In March 1979 we commissioned Messrs Jaakko Poyry Ltd. to undertake a study into the most appropriate strategy for the marketing of the increasing supplies of small diameter wood in the medium and long term. Their report is expected at the end of 1979.

Plant Health

Oak Wilt

17. Public concern has continued to be expressed during the year about the possibility of oak wilt being brought into this country on oak imports from North America. As the competent authority under the Plant Health Act 1967 for the protection of forest trees and timber, we have for many years been taking very seriously the potential threat that this disease poses to our native oaks. We first introduced regulations to control North American oak imports in 1974, and our current Order, which came into operation in July 1977, imposed new and more stringent conditions in anticipation of the controls to be introduced under the EEC Plant Health Directive. Over the past year, discussions have been taking place in the EEC Plant Health Working Party about the possible extension of these controls to cover square-edged sawn oak wood from North America, as well as wood in the round.

18. There have been several calls recently for a complete ban to be imposed on the import of oak wood from America. We have considered these very carefully but in our judgement the risk is far too small to justify a ban, which in itself would not guarantee that we should be free of risk. Pathologists, both in Britain and the USA, advise that the danger of oak wilt becoming established in Britain is extremely remote and that our present safeguards, if conscientiously applied, remove virtually all the potential risk. The extension of these controls, as now being debated in Brussels, would reduce the already very low risk to negligible proportions. The scientific advice we have received is also backed up by practical experience, in that oak wilt has not been found anywhere outside the United States (not even in Canada) despite the fact that American oak wood has continued to be exported over the 40 years since the disease was first discovered there, and for the greater part of that time without any controls.

19. Anxiety has been expressed, particularly by private woodland owners and environmental interests, about the possibility of oak wilt developing into an epidemic comparable with Dutch elm disease. The circumstances are quite different, however, as elm disease has been present in Britain for at least half a

century, and may be regarded as indigenous. Over the years it had flared up occasionally and died down again with only local damage to the elm population. Therefore no controls were imposed on the importation of elm logs. When the present epidemic of elm disease broke out in the late 1960s there was no reason to assume that it was not a recurrence of the familiar cycle, and it was not until the disease had gained a firm foothold that Forestry Commission scientists discovered that the damage was being caused by an aggressive strain, hitherto unidentified in any part of the world, which is believed to have reached this country on elm logs from Canada. Oak wilt, on the other hand, is not present in this country and we have stringent controls to prevent its entry (Plate 4).

20. We believe that our approach to the oak wilt threat is a practical one taking all the circumstances into account and carefully weighing the risks involved. It would be extremely difficult to maintain an effective ban on the entry of North American oak, given the very large quantities of timber of all kinds passing through our ports. We feel, by contrast, that controls over oak imports are a much more effective safeguard, provided we secure the active co-operation of importers by enabling them to comply with control measures which are practical and also provide an effective barrier to the transmission of the disease to this country.

Pine Beauty Moth

21. As anticipated in last year's Report, some 5,000 hectares of Lodgepole pine in the north of Scotland infested with the larvae of the Pine beauty moth were treated with fenitrothion (Plate 3), an insecticide cleared under the Pesticides Safety Precautions Scheme. This operation was successful and achieved a 97 per cent mortality rate. The Nature Conservancy Council, the water authorities and numerous other interested bodies monitored the effect of this operation on various aspects of the environment. Their preliminary findings are most encouraging and suggest that no ill effects have been experienced. Further outbreaks of the larvae have since been discovered in five more Commission forests, all in Scotland, totalling some 3,500 hectares, and it is our intention to treat these plantations in the early summer of 1979. The operation will again be carefully monitored by us and environmental organisations.

22. During the year we have given training, advice and some technical assistance to private foresters whose plantations may be at risk. Fortunately, there are few sites in the private sector which are likely to be susceptible to Pine beauty moth infestation, but we shall be keeping a close watch on the situation.

Dutch Elm Disease

23. Dutch elm disease has continued to take its toll, particularly in the southern part of Britain. As a result of our latest assessment of the situation and following consultations with the local authorities concerned, we have decided to redefine the boundary between the so-called 'heavily affected' area and the remainder of the country where control measures are still being applied. Further details are given in paragraphs 106-110.

Eighth World Forestry Congress

24. An official United Kingdom delegation of ten led by the Director General, Mr G. D. Holmes, and including Mr J. N. Kennedy, Director Forest Management, and Mr G. J. Francis, Head of Harvesting and Marketing Division, attended the Eighth World Forestry Congress in Indonesia in October 1978. The Congress was attended by over 2,400 delegates from 104 countries and

17 international organisations, including 14 Ministers with responsibility for forestry.

25. Following its theme of *Forests for People*, the Congress had the aim of examining how forestry might best serve people individually and collectively. There were six main technical sessions and Mr Holmes presented the International Union of Forestry Research Organisation's paper in the technical session on *Forests for Quality of Life*. Of the 17 specially invited papers from the United Kingdom, five were prepared by the Commission.

26. The full Declaration of the Congress is reproduced as Appendix VII of this Report. From the British standpoint its most significant part is paragraph 24 concerning the potential shortage of world timber supplies. On the basis of present trends, the Congress felt there was a prospect of a serious gap between the need for industrial wood and the supply capacity. It seems clear from discussion at the Congress that the volume available for export from traditional suppliers to this country can be expected to change. The expansion of consumption in the USSR and the expected balance between domestic supply and demand in North America, for instance, will reduce the quantities of timber available from those regions to meet increasing United Kingdom demand. We could therefore be faced with the prospect of a tight supply situation at the same time as supply sources were becoming more distant and more costly. Moreover, an extensive development of the use of wood as a chemical base for synthetic organic material is predicted toward the end of the century, imposing additional demands on already difficult supplies. These points, combined with a Congress recommendation which calls for the creation of large areas of intensively managed plantations, lend support to the conclusion contained in our review group's report on *The Wood Production Outlook in Britain* (paragraphs 1 and 2 of this Report) that it would be prudent to increase planting in Britain.

Forestry in the EEC

27. In December 1978, the EEC Commission presented to the Council of Ministers a Communication entitled *Forestry Policy in the European Community* which analysed the principal forestry problems in the Community. The EEC Commission suggested that the objectives and principles listed should be taken into account by Member States in the formulation of their domestic forestry policy and that the Council of Ministers should adopt a Resolution to that effect. Within Great Britain we circulated the document to private sector organisations, trade unions and the University forestry departments, and the views expressed are being taken into account in considering the attitude the United Kingdom should adopt on the proposals.

28. Consideration of the Communication, the draft Council Resolution and a draft Council decision to set up a forestry committee comprising officials of each Member State, has continued in Brussels at official level. There will also be discussion in the European Parliament and the Economic and Social Committee prior to any decision by the Council of Ministers.

Census of Trees and Woodlands

29. Following consultations with the Home Grown Timber Advisory Committee, we announced in February 1979 our intention to start work this spring on a census of all trees and woodlands in Great Britain. This will be the first national census the Commission has undertaken since 1965 and it will take until 1982 to complete. Further details are given in paragraphs 104 and 105.

Weather

30. Bad weather affected our operations throughout the year, but especially during the winter which was the worst since 1962–63. Nursery work and planting were badly delayed and timber harvesting came to a halt for long periods in many forests. Snow caused widespread damage, particularly in pine plantations, and deer were able to gain access to many forests when protective fences were buried under several feet of snow.

Kielder Reservoir

31. The Kielder Liaison Committee published in November 1978 its comprehensive plan for the development of recreation and tourism on and around the new reservoir at Kielder. The Committee, which was set up jointly by the Forestry Commission and the Northumbrian Water Authority, made its recommendations after full consultation with the local authorities and other interested bodies. In general, the Commission will be responsible for land-based recreation and the Northumbrian Water Authority for water-based recreation. The intention is that development should be carried out progressively over the next 15 to 20 years, both by providing facilities for recreation and tourism and by promoting private development where appropriate. The detailed implementation of the proposals will be subject to the approval of the Commission and the Water Authority and to the availability of finance. Special attention will continue to be given to the needs of the local population and the quality of life in the North Tyne Valley.

32. We are disappointed to have to report that the Commission has for some time been in disagreement with the Northumbrian Water Authority over the area of land around the new reservoir to be conveyed to them for their operational functions. Negotiations are continuing and we hope that a compromise can still be found which will be acceptable to the Water Authority while protecting the essential forestry interest, including the important amenity and recreation interest in the area around the reservoir which itself lies in the heart of the Border Forest Park.

Visit by the Prince of Wales

33. His Royal Highness the Prince of Wales visited Upper Nithsdale Forest in south-west Scotland on 22 February 1979. His helicopter landed high in the snow-covered hills where he spent half an hour examining a display of machinery, watching a demonstration of ploughing on a very steep hill, and speaking to Conservancy staff and forest workers and their families.

Awards to the Commission

34. We were delighted to receive a 1978 Civic Trust Award for outstanding environmental merit for the timber-built forest cabins at Deerpark in Cornwall, one of 24 awards out of 1,100 entries. In their citation the Trust said that the cabins were 'beautifully sited and designed and show convincingly that quality is far from impossible in such developments'. The cabins, designed by Cardiff architects Hird and Brooks and adopted by the Commission for use elsewhere, are sited within attractive woodland around the landscaped and restored site of a former gunpowder mill, many features of which have been incorporated in the development. Forest holidays in the cabins are proving very popular with visitors.

35. Other notable awards won by the Commission during the year included the Royal Agricultural Society of England's Silver Gilt Medal for our exhibit at the Royal Show; the Society of American Travel Writers' Phoenix Award for Conservation – only rarely awarded outside the USA – to Mr Finlay MacRae, a District Officer with the Commission, for his work on the conservation of Scotland's native Caledonian pine in Glen Affric Forest (Front cover); and a Certificate of Merit from the British Association of Industrial Editors for the Commission's house newspaper, the *Slasher*. We were also pleased to be presented with a Prince of Wales Award by His Royal Highness for the Bwlch Nant yr Arian Visitor Centre in Rheidol Forest; the Centre also received a certificate of commendation from the British Tourist Authority.

Commissioners

36. Mr A. M. Donnet, a part-time Commissioner, was made a life peer in May 1978 taking the title of Lord Donnet of Balgay. Mr G. G. Stewart, Commissioner for Forest and Estate Management, was appointed a CB in the 1979 New Year Honours List.

37. Sir Ralph Verney and Captain D. S. Bowser were reappointed as part-time Commissioners for a two-year period from 1 October 1978. Mr J. D. Pollock and Mr D. R. Hicklin were appointed part-time Commissioners on the same date for a three-year period in place of Lord Donnet and Mr C. G. A. Latham, who retired at the end of their terms of office on 30 September 1978.

Senior Staff

38. On the retirement of Mr E. G. Richards from his London-based post of Director Land Use Planning on 30 June 1978, Mr A. Morrison was promoted to a new appointment at Headquarters as Director Private Forestry and Land Use Planning. Mr Morrison's successor as Conservator East Scotland was Mr I. A. D. Grant, who before his promotion was an Assistant Conservator in the West Scotland Conservancy.

39. The promotion of Mr R. M. Hewitt to Conservator East England, in succession to Mr B. W. Holtam who retired on 7 April 1978, was recorded in last year's Report but took effect during the period covered by this Report.

Staff Numbers

40. On 31 March 1979 the Commission employed 2,255 non-industrial staff (compared with 2,246 the previous year) and 6,068 industrial staff (146 more than last year).

Forestry Enterprise

Land Acquisition

41. We were again disappointed at the inadequate area of land we obtained for planting. This was mainly because only a limited amount of suitable land was coming on to the market and competition was keen. This led to a further fall in the Commission's reserves of plantable land, as illustrated in Diagram 1 on page 17, and an adverse effect on the planting programme as explained in paragraph 45.

42. The total area of plantable land acquired during the year was 5,675 hectares, including 55 hectares under plantations. The distribution was:—

	<i>Total plantable area acquired (hectares)</i>
England	212
Wales	197
Scotland	5,266

The average cost of plantable land was £295 per hectare, an increase of 80 per cent compared with the average for 1977–78 of £164 per hectare.

Nurseries

43. Throughout the year bad weather handicapped successive phases of nursery operations. Cold, wet weather in the early spring delayed seed sowing and the lifting of seedlings and transplants. A dry period followed in May, just as seeds were germinating, and we were thankful for the additional irrigation equipment installed the previous year in some nurseries; but while irrigation ensured satisfactory yields of seedlings, both seedlings and transplants were smaller than average. Further cold weather from October to March caused delays in all nursery work and this will be reflected in the lower quality and number of plants available next year.

44. A new technique for the rapid production of Lodgepole pine seedlings was used to anticipate an expected shortage of plants for upland sites. Seed was sown at low density under polythene cloches. Results in the nursery were good and the performance of these one-year old seedlings in the forest will be closely monitored.

Planting

A Further Fall

45. The long and hard winter delayed planting, and only 11,842 hectares of new plantations were established and 3,567 hectares restocked after felling. This

compares with the budgeted programmes of 14,394 hectares and 3,971 hectares respectively. Future programmes have been revised to take account of our falling reserves of plantable land; unless there is a dramatic improvement in the amount of land acquired, planting programmes will decline by about 1,000 hectares a year over the next few years.

NET LAND ACQUISITIONS 1969-70 to 1978-79

The effect of the rates of new planting and land acquisition on the reserve of plantable land.

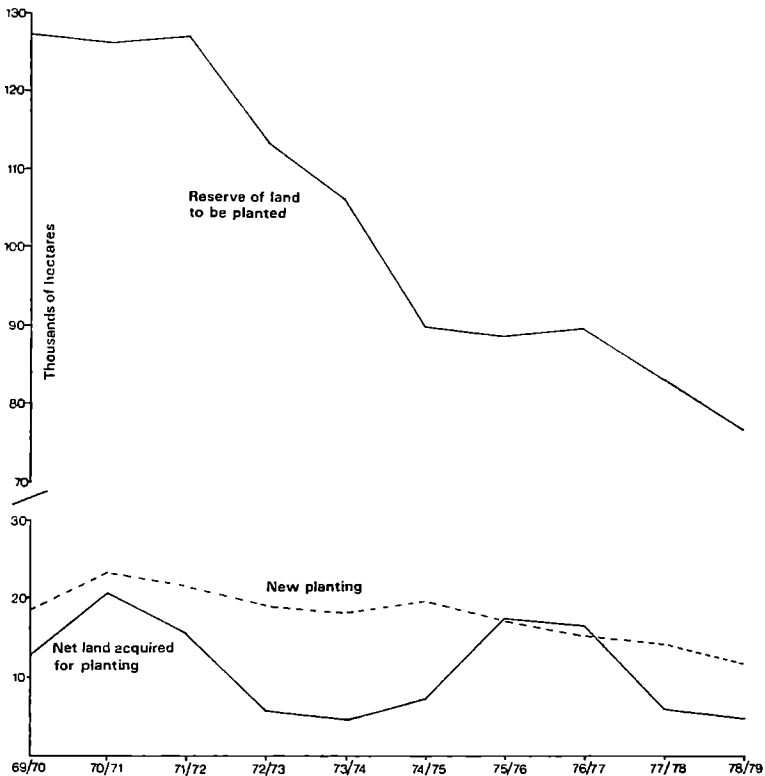


DIAGRAM 1. Land acquired for planting is shown as the net plantable area, i.e. areas of plantations which have been acquired, and plantable land disposed of in exchanges, have been deducted.

Planting at Beinn Ghuilean

46. Plans to plant some 100 hectares on Beinn Ghuilean outside Campbeltown, which was acquired by the Secretary of State for Scotland for forestry purposes in 1973, were opposed by the Argyll and Bute District Council and some local residents. The Conservancy staff were unable to reconcile the differences and the matter was referred to our Regional Advisory Committee for West Scotland. The Committee's unanimous advice was that the planting on Beinn Ghuilean should proceed, but before this began we referred the matter to the Secretary of State for his views. The Secretary of State felt that the balance of advantage lay with planting the land, and work started early in February 1979.

47. Operations were halted almost immediately because of an interim interdict granted by the Court of Session in favour of Swannay Farm Cheese Ltd. of Campbeltown, who were concerned about the effects of the planting on their water supply. We contested this in the Court and an interlocutor recalling the interim interdict was subsequently issued on 13 February. Planting was well advanced by the end of the year under report.

Tree Seed

48. Seed crops were again poor and we were unable to top up stocks in our central store. While these are still adequate, they are lower than they have been for some time and it is becoming increasingly difficult to buy seed of the desired origins from overseas sources.

49. During the year some of our research staff went to North America to collect seeds as part of our contribution to a project organised by the International Union of Forestry Research Organisations. While there, they attempted to collect Lodgepole pine seed from selected Canadian sources for use in this country. Unfortunately, cone crops were poor and seed yields low but valuable experience was gained and we shall consider sending a special team to make collections when the next good cone crop is reported.

Forest Protection

Fire

50. Losses from fire were above average due to a dry spell in May 1978 which resulted in two large fires on the same night; 322 hectares of plantations were destroyed at Shin Forest in North Scotland Conservancy and 277 hectares at Glentroot Forest in South Scotland Conservancy. These two fires accounted for a high proportion of the total loss of 838 hectares during the year.

Deer

51. Because of the hard winter, red deer casualties are thought to be higher than usual, especially in exposed places, and the poor condition of hinds is expected to result in a low rate of calf survival. Although red and roe deer living in the shelter of woodlands can be expected to have suffered less, their casualties will probably be higher than normal.

Conservation

52. Existing arrangements for liaison between the Commission and the Nature Conservancy Council were supplemented during the year by visits of regional staff from both bodies to forests in our South Scotland and North Wales Conservancies to discuss various conservation aspects of forest management. These visits were particularly valuable in creating a closer understanding of the work being done by each body and plans are in hand for further meetings.

Forest Design

53. A second forest officer took up post in the Forest Design Branch having completed a diploma in landscape architecture at Manchester University. The workload on the Branch is heavy and priority for landscaping advice has been given to new acquisition proposals and major planting and felling operations.

54. In May 1978 a new visitor centre was opened by the Duke of Beaufort at Westonbirt Arboretum in Gloucestershire. The building designed by Andris Berzins to match the splendour of the Arboretum, is attractively constructed in Cotswold stone and timber, and provides exhibition space, a shop for literature and souvenirs, a small lecture room and office and catering facilities (Plate 8). It received much favourable comment in the press and in technical journals.

USE OF THE MAIN COMMISSION CAMPING AND CARAVAN SITES 1965-1978.

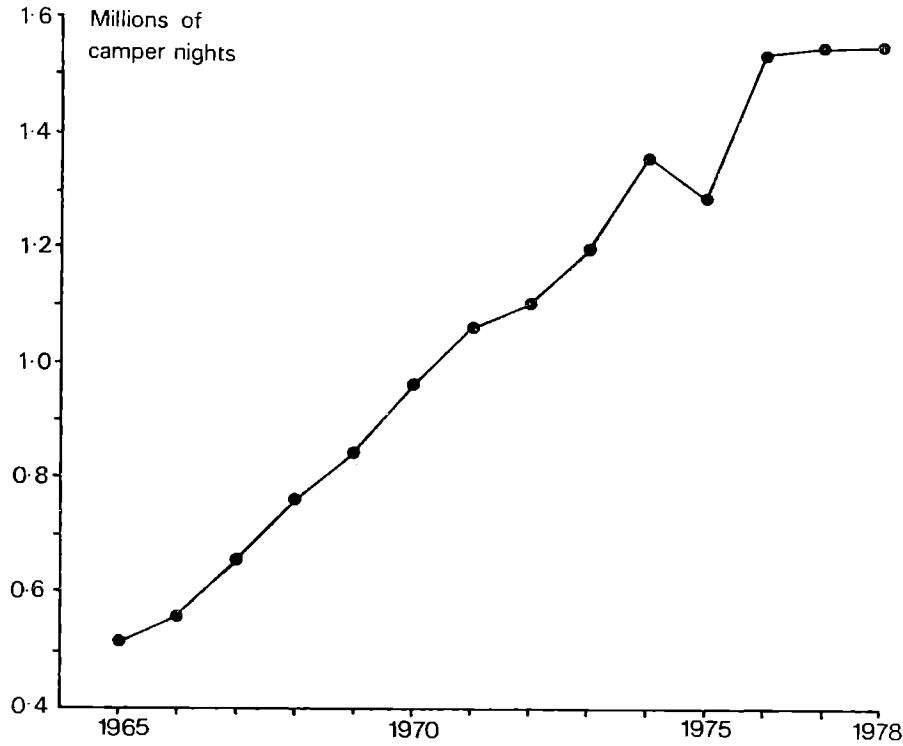


DIAGRAM 2. A camper night is a measure of use equivalent to one person staying one night at a camping and caravan site.

Recreation

55. During the year we continued to add to the recreational facilities provided for the public. Our forest cabin scheme at Keldy, on the North Yorkshire Moors near Pickering, was extended by constructing an additional 33 cabins, bringing the total to 61. At Deepark in Cornwall, 15 additional cabins were built to bring the total on this site to 45. The annual occupancy rate of these cabins and those at Strathyre in Scotland has been 65 per cent, with a virtual 100 per cent occupancy during the main holiday months. These are very satisfactory figures.

56. Camping and caravan sites are an important part of our recreation provision, and Diagram 2 (above) shows the use made of our main sites since 1965. The trough between 1974 and 1975 is mainly attributable to the late wet spring in 1975 which discouraged potential campers. The average annual increase in

usage from 1965 has been approximately 9 per cent, but between 1975 and 1976 the annual increase was 18 per cent owing to the exceptionally fine weather. It has not proved possible to sustain such a rate of increase since then because of the disappointing summers, although a good level of occupancy has been maintained.

57. The numbers of car parks, picnic places and forest walks were also increased during the year and a summary of the facilities now available is given in Table 14 of Appendix X.

Estate Management

The Queen's House, Lyndhurst

58. The Queen's House, Lyndhurst, is a Grade II listed building which has been associated with the administration of the New Forest for several centuries, latterly serving as offices for the Deputy Surveyor of the New Forest and the Conservator for South East England. Towards the end of 1977 it was found to be in dangerous structural condition, and it was evacuated in December 1977. Extensive emergency steel work has been erected to prevent its collapse and to enable a thorough inspection of the building to be undertaken by consultants. Their report was awaited at the end of the year. When received it will have a major influence on the difficult decisions we shall have to take about the future of this historic building and the accommodation for our staff.

Disposals

59. We continued to dispose of land and buildings which were surplus to our needs or were required by local authorities and other public bodies for statutory purposes. The properties sold consisted mainly of farms and agricultural land, and houses of varying ages and conditions. The income from disposals amounted to £1.7 million.

Management of Property

60. During the year we spent £1.3 million on the construction, improvement and acquisition of buildings. Priority was given to the further modernisation of the Commission's houses and to the replacement of the buildings, including workshops, depots and houses, to be submerged by the new reservoir at Kielder. A new research and development workshop was built at Ae, while new vehicle and machine repair depots were completed at Dunkeld and Hawick. The repair depots at Torlundy, Chapelhall and St. Hilary were also improved and extended. As reported in paragraph 55, the forest cabin holiday accommodation scheme was extended by the construction of additional cabins at Keldy and Deerpark.

61. The rental income for the year was £1.0 million. The introduction of fair rents at 1978 values has still to be fully achieved for houses occupied by foresters and by many industrial employees. Negotiations are continuing.

62. Details of the number of properties managed by the Commission are given at Table 13 of Appendix X.

Harvesting and Marketing

Demand

63. The demand for small diameter wood remained weak in the first half of the year; it was not until the latter half that signs of improvement became apparent,

and then demand strengthened considerably. The demand for logs remained steady at first but greatly improved as the year progressed. In the early months of 1979 bad weather caused widespread disruption of harvesting activities; this was further aggravated by a strike in the road haulage industry which held up deliveries. During this time stocks of timber at mills fell sharply. Major efforts were made by our staff to overcome this setback and, while good progress was made, the position had not been fully recovered by the end of the year. In the event, the total volume of wood harvested (2,011,000 cubic metres) was only 6 per cent lower than the full programme and was 2 per cent more than the volume harvested last year.

Prices

64. Generally, prices for small diameter wood decreased in most categories. Even where increases did occur they were marginal and did not keep pace with increasing costs. The prices of sawlogs supplied rose marginally over the year as a whole; almost all of the increase occurred in the second half of the year when there were substantial rises in forward prices.

65. The main features of our operations in the year, with comparable figures for previous years, are summarised below.

	Unit	1975-76	1976-77	1977-78	1978-79
<i>Total Removals</i>	Million cubic metres	1.56	2.02	1.97	2.01
By Sale Standing	"	0.55	0.83	0.75	0.68
By Forestry Commission harvesting ..	"	1.01	1.19	1.22	1.33
<i>Gross Receipts</i>	£ million	16.69	23.36	25.91	26.61
Expenditure (including oncosts but excluding overheads)	"	7.51	9.23	12.31	14.70
Net Receipts	"	9.18	14.13	13.60	11.91
<i>Receipts per cubic metre</i> ..	£	10.70	11.56	13.15	13.24
Expenditure per cubic metre ..	"	4.81	4.57	6.25	7.31
Net Receipts per cubic metre ..	"	5.89	6.99	6.90	5.93

Conifer Sawlog Sales

66. In the first half of the year prices in log supply contracts remained fairly static, but they rose in the second half and by the end of the year prices were 11 per cent higher than at the start. The Commission's Log Price Index rose from 127.4 at 31 March 1978 to 145.2 at 31 March 1979; this represents an increase of about 14 per cent and reflects the strong rise in prices experienced at auctions in the first quarter of 1979 for logs to be supplied from March/April onwards. One of the features of the year was an increase in demand for small diameter logs. The volume of logs supplied from our own harvesting operations maintained the upward trend noted in previous years and was 26 per cent more than in 1977-78.

Conifer Small Roundwood Sales

67. The continuing and increasing strength of sterling against the North American currencies during the latter part of the period under review tended to make some major overseas producers of paper and board more competitive. While prices for imported pulp recovered, the effects were diluted by developments in the sterling exchange rate. Nevertheless, there was a greater call for British pulpwood for chemical pulping, both in hardwoods and softwoods, and

for mechanical pulping associated with the production of newsprint. Pulpwood deliveries increased by 10 per cent compared with last year, most of the improvement occurring in the second half of the year. Prices remained depressed and in some sectors they were below those of last year, reflecting the trend in Europe generally.

68. The low activity in some sectors of the particle board industry noted in last year's Report continued into 1978-79, with capacity much under-used. Many particle board plants suspended the intake of round timber or curtailed it severely. Towards the end of 1978, however, production levels and the demand for wood recovered strongly. In some areas a shortage of residues has accentuated the demand for roundwood. Despite the recent improvement, deliveries of roundwood for particle board were 11 per cent lower than last year.

69. The National Coal Board continued to substitute home for imported sources of supply; nevertheless, the quantity of round pitwood deliveries decreased by 7 per cent compared with last year. We attribute this to a reduction in stock-holding as well as total consumption.

Sales of Standing Trees

70. Removals of timber under standing sales contracts totalled 677,000 cubic metres, as against 750,000 cubic metres in 1977-78. The lower achievement was due to the poor market conditions for small diameter wood initially and to weather conditions combined with the road haulage strike in the early months of 1979. Over the year as a whole, average prices for all sales of standing trees fell by about 11 per cent. Our Great Britain Price Index for sales of standing trees of smaller sizes dropped from 320.6 at the start of the year to 247.1 by mid-year and to 235.0 at the end of the year. This trend reflects both increasing costs of harvesting and the failure of prices to keep pace with these costs.

Other Developments

71. For some time we have been seeking to extend the specification of Post Office telegraph poles to include British-grown Corsican pine. Following an extensive period of testing by the Post Office, it was announced in May 1978 that Corsican pine was now added to the list of acceptable British-grown species, which already included Scots pine, Douglas fir and larch. This creates an important opportunity to increase supplies from home sources to replace imports.

Harvesting

72. The development of mechanised harvesting operations was continued with particular emphasis on harvesting early thinnings (Plate 2). Steps were taken to improve equipment and systems for harvesting larger trees in mountainous terrain (Plate 5).

Engineering

73. Much attention was given during the year to the reclassification of existing forest roads, which were designed for much smaller lorries than those now in general use. Modern timber extraction methods are more economic over longer distances; some of the old roads can thus be abandoned or downgraded for use by forwarders, while the remainder are improved to the higher standard now necessary.

74. Although a good deal remains to be done, satisfactory progress has been made with our roads survey and reclassification and with planning and economic appraisals, and the result has been a greater emphasis on road improvement. During the year 241 kilometres (150 miles) were completed to full standard and 63 kilometres (39 miles) built to a lower standard for forwarders and light traffic. This work, and the construction or reconstruction of 34 road and foot-bridges, was completed to programme, in spite of the exceptionally severe winter. The expansion of our vehicle fleets in some parts of the country and the need elsewhere to replace makeshift accommodation with efficient workshops has resulted in a continuing workshop building programme, details of which have been given in paragraph 60.

75. Useful advances have been made in the mechanisation of rock drilling. Although the cost savings are so far quite small, the work is very much less arduous for the drillers and the greater speed of drilling reduces delays to other plant. Trials of liquid calcium chloride showed some advantages over the flake form of application for the suppression of dust, particularly on scenic drives, and further trials of fabric underlays were undertaken to assess their usefulness as a separating layer and reinforcement in road construction.

Forest Workers' Pay

76. The main features of the 1979 pay settlement were an increase of £5.25 a week in the forest workers' basic rate, an increase in the forest craftsmen's lead over the basic rate from 10 per cent to 12½ per cent, the retention of the piece-work incentive level at 126½ per cent and increases in the differentials for foremen and rangers. The new rates operative from 22 January 1979 for unskilled forest workers and forest craftsmen are £48.75 and £54.85 a week respectively.

77. The average weekly earnings of forest workers, based on a sample of one full week's work by all grades in each quarter, were £65.21.

Safety

78. The accident rate per 100 industrial employees fell from 8.0 to 7.6. The actual number of accidents reported also showed a slight improvement, falling from 464 to 443. The number of accidents sustained by juvenile employees has fallen quite dramatically since we decided not to employ persons under the age of 18 on chainsaw work. This policy was introduced in 1976 when the accident rate for juveniles was 14.5 per 100; in 1978 the rate had fallen to 3.7.

79. The procedure for reporting accidents has been revised and should provide more factual information about the causes of accidents and the remedial action taken. Accidents to non-industrial staff will also be subject to the same reporting procedures.

80. Our search for a waterproof boot giving adequate protection against chainsaw cuts has met at last with success and resulted in the introduction of the Finnish 'Metsuri' boot in good time for the onset of winter. Some improvements have been incorporated aimed at increasing rigidity and durability, and early indications suggest that the exercise has been worthwhile. Some new fabrics have been tested for suitability in pesticide spraying operations and an analysis of both laboratory and field testing data has shown very promising results. The main advantages are a reduction in weight and a considerable improvement in the comfort of the operator. Suits made in the material which showed itself to be the most successful will be introduced during the coming year.

Finance

Public Accounts Committee

81. As mentioned in paragraph 5, the Director General was examined by the Public Accounts Committee on 21 June 1978; in their Report the Committee considered and made observations on the following matters:—

Measurement of performance 1972–77 and the 3 per cent target rate of return – the Committee accepted that the surplus, or deficit, achieved in a quinquennium was useful as a measure of performance against predictions, but stressed that the target rate and surplus together do not provide an absolute measure of performance.

The valuation of plantations at 1 April 1977 – the Committee appreciated that the valuation of partly-grown plantations was difficult and accepted that the assumptions on which the estimates were based were the best that could be made at the time. The resultant valuation could not, however, be accepted without some reservations because changes might occur during the crop cycle to invalidate the assumptions.

Planting and restocking subsidies and land purchase – the Committee looked to the Commission to seek to reduce the average liability for subsidy, rather than merely avoid an increase, and stressed the need to weigh critically the benefits expected from any purchase of low-yielding land against the overall cost to public funds. The Committee were advised that the Commission would naturally try to reduce the subsidy liability, but there were doubts about the extent to which this would be possible given that the quality of land becoming available for afforestation seemed likely to deteriorate.

Standard of performance – having been told that the Commission exerted considerable management pressure to achieve targets which were better than the standards, the Committee hoped that future accounts would show variances which indicated that performance had been better than standards and not just equal to them. The Commission confirmed that every effort would be made to achieve maximum improvements.

Recreation facilities – the Committee were impressed by the Commission's enthusiastic approach and achievements in this field. They emphasised the importance, however, of ensuring that the greatest possible revenue was obtained on recreation activities, not only to offset the expenditure incurred but also to relieve the cost of forestry to the Exchequer.

82. The accounts of the Forestry Enterprise, including general notes and explanations together with the Comptroller and Auditor General's report thereon, appear after page 85.

Forestry Authority

Legislation

The Forestry Act 1979

83. The Forestry Act 1979, which received the Royal Assent on 29 March 1979 and comes into operation on 29 May 1979, clarifies our powers to make grants and loans to owners and lessees of land for the management and maintenance of their land for forestry purposes and amends the Forestry Act 1967 to substitute metric for imperial units of measurement. We have also been granted enabling powers to metricate imperial references in various New Forest and Forest of Dean Acts, which could not be achieved in the Forestry Act 1979 for reasons of hybridity.

Legislation in Preparation

84. Work continued or was started on a number of Statutory Instruments:—

- (a) *Import Controls* – drafting of the Order designed to implement the EEC Plant Health Directive is well advanced. Its enactment has been delayed, however, by difficulties in reaching agreement within the Community on a number of detailed amendments, in particular the more stringent controls proposed for the import of oak from North America.
- (b) *General Domestic Controls* – an Order complementary to that mentioned above is also being prepared to provide control measures against non-indigenous tree pests and diseases which, despite the import controls, might gain a foothold in Britain. Work has also started on the drafting of a separate emergency Order which can be held in readiness to deal with any sudden epidemic of an indigenous tree pest or disease.
- (c) *Forestry Commission Byelaws* – as reported last year we are preparing a composite set of Byelaws to cover all Commission land including the Forest of Dean, the New Forest, Westonbirt Arboretum and Bedgebury Pinetum, which at present have separate Byelaws; we expect to lay the Order before Parliament early in 1980.
- (d) *Dutch Elm Disease* – amending Orders to the Dutch Elm Disease (Local Authorities) Order 1977 (SI 1977/1074) and to the Dutch Elm Disease (Restriction on Movement of Elms) Order 1977 (SI 1977/1075) are being prepared to take account of changes agreed with local authorities to the boundary between the heavily and lightly affected areas (see paragraph 107); they will also contain certain technical amendments to improve the local authorities' ability to implement the regulations.
- (e) *Metrication* – as a consequence of the enactment of the Forestry Act 1979, an Order will be needed to substitute metric for imperial units of measurement in various New Forest and Forest of Dean Acts. Amendments will also be required to two of our existing Orders – the Forestry

(Exception from Restriction of Felling) Regulations 1951 (SI 1951/1725) and the Forestry (Felling of Trees) Regulations 1951 (SI 1951/1726).

Opencast Coal Mining

85. In our last Report we gave details of the decision to grant a lease to Woorgreens High Delf Ltd. for opencast coal mining at Woorgreens Gale in the Forest of Dean. Mining operations started last summer and are proceeding to plan, despite the very bad weather last winter. A local liaison committee has been formed, which includes local amenity bodies and other local interests, to provide a forum for the exchange of information about specific points of concern on such matters as possible disturbance to local residents.

Private Forestry

Improvement in Planting Levels

86. We are pleased to report that the return of confidence to which we looked forward last year, following the improvements to the support arrangements for private forestry introduced in 1977, is now becoming evident. Planting in the private sector increased for the first time for some years, 10,799 hectares of planting being grant-aided under the Commission's schemes, of which 7,949 hectares were new planting (Table 3 of Appendix X); in addition, there were 272 hectares planted without grants. Although this is still well below the levels achieved in the peak years of the early seventies, the interest currently being shown in the Commission's grant-aid schemes, if maintained, would indicate that the upward trend in planting will continue over the next few years.

Basis III

87. More interest was shown in the Basis III Dedication Scheme during the year than at any time since it was introduced. Applications for some 22,000 hectares were approved, bringing the total area within the Scheme to over 80,000 hectares, and a further substantial area was under consideration at the end of the year.

Grants for Native Pinewoods

88. One of the new measures announced in March 1977 was a special grant for the planting and natural regeneration of native pinewoods in selected areas in Scotland. The objects of the special grants are to produce utilisable crops of timber, to maintain the existing native pinewoods and, where feasible, to increase their area by planting and natural regeneration.

89. Following protracted discussions, we reached agreement with the Nature Conservancy Council during the year on the boundaries of the areas within which these grants may be payable, and the detailed arrangements were made known in November 1978. Owners of land within these areas who wish to qualify for the special grant are required to bring it into the Basis III Dedication Scheme and to agree to its being classified under one or more of four management zones. In order to avoid genetic contamination, any Scots pine to be planted must be raised from seed of local origin, and for this purpose eight distinct areas of origin have been defined. It is too early yet to say how far owners are likely to avail themselves of this special grant, but both we and the Nature Conservancy Council will be actively promoting the Scheme.

Small Woods Scheme

90. This Scheme was introduced in October 1977 in an attempt to arrest the loss of small woods in recognition of their amenity value as well as the significant contribution they can make to the country's timber resources. The rates of grant reflect the higher costs of small-scale planting, and a particular feature of the scheme is the emphasis placed on planting broadleaves where the existing landscape is essentially broadleaved in character.

91. Owners with woods of less than 10 hectares in Basis III Dedication were invited to transfer to the Small Woods Scheme to simplify the administrative procedures, and we are pleased to report that the response has been very satisfactory. Other proposals put forward during the first year of the Scheme amount to some 1,800 hectares, and a particularly welcome feature is that at least half the proposed new planting will consist of broadleaves, either pure or in mixture with conifers. It would appear that this Scheme has been well received and is largely achieving its stated aims.

Land Use

The Commission's Involvement

92. The Commission shares an interest in land use matters with several other Departments and agencies, with whom we co-operate on a number of committees and working parties set up to deal with both general and specific land use topics. In Scotland, the main forum for discussion is the Standing Committee on Rural Land Use, whose working party on hill land classification is compiling a forestry capability classification in close collaboration with the Macaulay Institute for Soil Research. Considerable interest has been expressed in the forestry potential of the 500,000 hectares of crofters' common grazings, and we have been engaged in discussions with the Crofters' Commission and other Government bodies on this and related matters. We are also involved in the discussions initiated by the Scottish Development Department to establish planning guidelines for scenic conservation in Scotland based on the Countryside Commission for Scotland's scenic heritage areas. During the year under report we have also had meetings with the Department of Agriculture and Fisheries for Scotland on improving the consultative procedures for grant-aid applications which involve changes in land use, and with the Highlands and Islands Development Board over their proposed new land use powers in the Highlands; we have responded to the policy statement on *Agriculture and Forestry* by the National Farmers' Union for Scotland and expect to have further discussions with them.

93. In England and Wales, we have contributed to the deliberations of the Countryside Review Committee, and in particular to its final topic paper on *Conservation and the Countryside Heritage*. Commission staff have also participated in meetings on the future of Areas of Outstanding Natural Beauty and on the place of forestry in National Parks, and have been closely involved with the Countryside Commission in their *New Agricultural Landscapes* and demonstration farms projects as well as a study of small woodlands on farms which has led to our undertaking a pilot project in Gwent. The Countryside Commission have consulted us about their forthcoming statement on their policy towards forestry, and we have also had discussions with the Nature Conservancy Council concerning their draft paper on *Nature Conservation and Forestry* (stimulated, like the Countryside Commission's statement, by our *Wood Production Outlook* review).

94. We have been closely involved with the forestry content of structure, local and subject plans throughout the country and have participated in a number of examinations in public. Our courses for local authority planning officers have continued to attract considerable interest both north and south of the Border, and short field visits arranged for local authority members and officials have also been well received.

Integration of Forestry and Farming

95. The need for forestry to be properly integrated with the management of the countryside as a whole is well recognised but often interpreted somewhat subjectively. It has recently been used to justify the proposition that forestry should consist of small blocks providing the minimum of disturbance and the maximum of benefit to farming. There are precedents for this concept in lowland Britain but there is room for broader interpretation in the larger areas of the uplands. These are matters which will feature in our discussions with the National Farmers' Union of Scotland (paragraph 92) and on a working party which the Department of Agriculture and Fisheries for Scotland plan to set up shortly to look into the scope for small-scale integration of forestry and farming in Scotland. Besides officials from the Department and the Forestry Commission, this working party will include representatives from the Scottish Woodland Owners Association, the National Farmers' Union for Scotland and the Scottish Landowners' Federation.

96. Another problem, often linked with integration because farmers are usually involved, is that the small owner-occupier is deterred from contributing to the overall forestry programme because he lacks sufficient financial resources to carry out the work himself and does not wish to part with his land either to the Commission or to a private individual or company. This problem has been resolved to some extent by the leasing schemes with an element of profit-sharing which are now offered by a number of management companies, often described loosely as 'partnership' schemes. An alternative scheme to provide the small owner with an annual income by grants from public funds until such time as the plantation yields marketable produce – in effect a loan scheme based on the eventual realisable value of the crop – has also been mooted. While such schemes may prove attractive in particular circumstances, they are unlikely in aggregate to make more than a small contribution to the overall programme of afforestation, and the costs of funding and administering a new and complex scheme of grant-aid for such modest returns might be difficult to justify.

Research and Development

97. A full account of the wide range of work carried out or grant-aided is given in the Commission's Report on Forest Research published each autumn. The paragraphs below represent a small selection of items of general interest.

Westonbirt Arboretum

98. The opening of the new visitor centre at Westonbirt (reported in paragraph 54) was a landmark in the development of the Arboretum for public enjoyment. The year also saw the planting of a comprehensive collection of willows from the Long Ashton Research Station and the completion of the Cherry Glade with further generous gifts from Mr H. Hillier to provide three specimens of each of the Japanese cherries in cultivation.

Alternative Species

99. Although Sitka spruce is so far a remarkably robust and versatile species in Britain, it seems unwise to rely as much as we do on its continued success. Alternative species such as Douglas fir and Grand fir can be used on the better sites. Other species are less well known, such as Engelmann spruce, White spruce and *Abies amabilis*, and these require further testing before being generally recommended. Some potentially fast-growing broadleaved trees such as alders, poplars and the Southern beech (*Nothofagus*) may have a place in upland forestry, and trials of these have been started.

100. Studies on 27 provenances of *Nothofagus* amongst the two main species were extended by trial plots on a wide variety of sites. During grant-aided visits to Tierra del Fuego and South Patagonia, Professor D. M. Moore of Reading University and Mr Iain Peters, a forestry consultant, added to the range of species and provenances in our seed collection.

Arboriculture

101. Pre-planting cultivation of motorway, urban and industrially despoiled sites is being studied and the survival compared of a number of species planted as container-grown or bare-rooted stock (Plate 7). Regraded colliery spoil heaps and old quarry workings are among the sites involved.

102. Amenity trees are frequently damaged by decay following pruning. Some bitumastic and latex-based wound paints have encouraged callus growth on beech and lime. Biological control of decay in pruning wounds is being studied.

103. Our Advisory and Information Service and our Northern Research Station together handled 40 per cent more enquiries than last year involving nearly 3,000 problems. These reflect the considerable public interest and concern for trees in the urban environment.

Census of Trees and Woodlands

104. Reference has been made earlier in this Report (paragraph 29) to the census of trees and woodlands we shall be starting this spring. One of its major objectives will be to produce a clear picture of the distribution of Britain's woodlands and their potential timber production to assist in planning the expansion of existing wood-using industries and the location of new ones. It will also provide local authorities and others with information on numbers and species of trees, including non-woodland species, and their current condition, from which subsequent assessments can monitor change.

105. Data from the woodland survey will be combined with those already held for Commission woodlands and for private woodlands in the dedication schemes to produce an updated assessment of the total area of woodland in Great Britain. Summaries of the tree and woodland populations will also be provided for each county in England, for counties and larger districts in Wales and for regions, districts or groups of districts in Scotland. The survey teams will start in the south of England, and then work through England and Wales to finish in Scotland by early 1982. The results should be published towards the end of 1982, but interim summaries by county or district will be available to those interested.

Dutch Elm Disease

106. In the southern part of Britain where the original outbreak occurred, it is estimated that some 15½ million elms have now died out of an original popula-

tion of 23 million. In the northern part of the country reports from local authorities indicate that generally there has been a further increase in the disease during 1978.

107. As a result of this year's assessment and subsequent discussions with local authorities, we have decided to extend the heavily affected area (that is the area where disease levels are such that controls are no longer appropriate) to include the counties of Leicestershire, Nottinghamshire and West Glamorgan and parts of the counties of Lincolnshire, Derbyshire, Merseyside, Clwyd and Dyfed. Appropriate amendments to the Dutch Elm Disease Orders are now being prepared (see paragraph 84). In some more northerly counties, notably Cleveland, Cumbria, Durham, Northumberland and Tyne & Wear, the numbers of trees which became diseased in 1978 were similar to or less than in 1977. In western Wales and Scotland the disease is now more widespread than it was in 1977. As in previous years, the main outbreak area in Scotland is in the Borders and Central Lowlands. However, the most northerly outbreak, reported in 1977 near Laurencekirk in Grampian Region, appears to have subsided.

108. A number of local authorities in the lightly affected area have reported that sanitation felling campaigns have been successful in reducing the rate of spread of the disease. Some campaigns have been less effective, however, because available resources have been insufficient to deal with the necessary felling operations.

Future Action

109. There is no known method of eradicating the disease. However, following the lines of the strategy we outlined in 1977, we have advised local authorities to concentrate their sanitation felling in circumstances where the disease is at a low level in towns or metropolitan areas, or in the countryside where the elm population is geographically isolated and the disease level is sufficiently low to give some chance of slowing its progress. There are a number of distinct advantages that can be gained from delaying the spread of the disease, which we enumerated in our last Report, the chief of which is that mature unaffected elm populations can be conserved for upwards of 20 years, thus spreading the cost of felling and allowing replanting programmes to be planned and new trees to be established before the elm cover is markedly reduced.

Movement of Elm Timber

110. The Dutch Elm Disease (Restriction on Movement of Elms) Order 1977 prohibits the movement of elm timber with bark attached into the lightly affected area. Movement within the lightly affected area can take place under licence, to which strict conditions are attached. We have continued to enforce this Order to deter illegal movement of elm and during the year we brought eight successful prosecutions; thirteen cases are pending.

International Meetings

111. We have already referred in detail to the Eighth World Forestry Congress (paragraphs 24 to 26). Some other international meetings attended by Commission staff are mentioned in the following paragraphs.

International Union of Forestry Research Organisations' Meeting

112. Some 120 delegates from 24 countries took part in a meeting of the International Union of Forestry Research Organisations held in Edinburgh in

September 1978. The introductory address, entitled *The Ecology of Even-Aged Plantations – An Introduction to Forestry in Upland Britain*, was delivered by the Director General. In the British context, Mr Holmes suggested that a continuing programme of new planting was essential to meet future needs, particularly after the turn of the century when it was predicted that there would be a rapid increase in world demand.

Eleventh FAO Regional Conference for Europe

113. The biennial meeting, held in Lisbon in October 1978, was attended by delegations from 26 member nations. One of the main topics considered was the long-term policy implications of the conclusions of the FAO study on *European Timber Trends and Prospects, 1950–2000*, and representatives from most of the European forest services participated in the discussions; Mr A. Morrison, the Commission's Director Private Forestry and Land Use Planning, was a member of the United Kingdom delegation. This was the first time that a forestry item had been included on the agenda of the Conference, but in view of the interest expressed it was agreed that the subject should be considered again periodically.

114. One of the conclusions of the Conference was that the profitability of wood production in commercial terms was not an adequate indicator of the total benefits derived by society from the forest resource. Account had also to be taken of the environmental and social functions, including the important role that forestry and ancillary activities could play in providing employment for rural populations. The Conference also stressed the importance for the agricultural and forestry sectors of developing and applying an integrated approach to land use planning for rural areas, particularly on such questions as the rational use of the less productive agricultural land.

EEC Meetings

115. The Director General attended the regular twice-yearly meetings of the EEC Heads of Forest Services, in Munich in June 1978 and Brussels in January 1979. Other Forestry Commission officials attended EEC Working Group meetings on forest reproductive material, forest research, wood in the rough, Mediterranean forestry measures, environmental matters and plant health.

Education and Training

116. Our Education and Training Branch ran a variety of courses during the year under report. In the main, these were for the benefit of the Commission's own staff, but training was also provided, on request, to the private forestry sector and other organisations, including public undertakings.

117. Students preparing for the examination of the Royal Institution of Chartered Surveyors continued to find it helpful to attend courses specially designed and conducted for them by Commission training staff, and we were pleased that a course for local authority planning officers was very well attended. Requests from local authorities and public bodies for chainsaw training were met as far as our resources allowed. Instructors' training manuals, for which there continues to be a considerable demand both at home and abroad, have been updated by our training development staff in order that courses might give attention to advances in machinery and operational techniques.

118. The development of job-related aptitude tests designed to assess suitability for training continued in collaboration with the Industrial Training Research Unit of London University. Results have been promising, especially in relation

to the tests for operators of chainsaws and harvesting machinery, and we hope that a testing service for training potential can be offered to field managers in the near future. The advantage of such a service would be to increase the efficient use of training resources by enabling management to select for training those staff who are most likely to reach a high level of skill.

119. During the year, there was the usual co-operation with colleges and other educational and training bodies, and Commission staff served on a number of committees concerned with forestry qualifications.

Public Interest in Forestry

120. There has been continuing public interest in forestry subjects, particularly in the fields of recreation, nature conservation and tree diseases. The national *See Your Forests Week* held to launch our new series of *See Your Forests* pamphlets received widespread coverage in the media, and successful press tours were held to promote the conservation strategy for the New Forest and the opening of new visitor centres at Westonbirt Arboretum and Strathyre Forest.

121. There was considerable press interest in the aerial spraying operation against Pine beauty moth in Sutherland and Caithness in 1978, and an explanatory press notice received favourable coverage. A similar press notice announcing our intention to treat another five Scottish forests in 1979 was widely used and led to a constructive BBC *Nationwide* interview with one of our entomologists.

122. Public controversy surrounding the import of oak from North America and fears about oak wilt entering Britain received a good deal of attention both in the press and in Parliament. An explanatory statement we issued to the press was well reported.

123. Our touring exhibit *Advice for Woodland Owners* was mounted at some 30 agricultural shows and in all we provided displays at over 50 exhibitions, shows and conferences. The film and slide library received a record number of loan requests from Commission staff giving talks to clubs and organisations, and we dealt with 4,000 requests from schools for publications and teaching aids during the year.

Finance

124. The statement of expenditure on Forestry Authority services, together with notes and explanations, appears at Table 2 of Appendix IX.

J. MACKIE, *Chairman*
G. D. HOLMES,
Deputy Chairman and Director General
D. S. BOWSER
J. D. GIBSON-WATT
D. R. HICKLIN
J. M. HUNTER
D. A. MITHEN
J. D. POLLOCK
G. G. STEWART
R. B. VERNEY

P. J. CLARKE, *Secretary*
FORESTRY COMMISSION
231 Corstorphine Road
Edinburgh EH12 7AT

Appendix I

Committees

National Committees

The membership of these Committees at 31 March 1979 was as follows:—

England

Sir Ralph Verney, Bt. (*Chairman*), Mr J. L. Benson, Major D. J. C. Davenport, Mr D. R. Hicklin, Mr P. H. L. Hills, Mr G. G. Stewart. *Secretary to the Committee*: Miss B. A. Landimore. The Committee met in May and October 1978.

Scotland

Capt. D. S. Bowser (*Chairman*), Lt.-Col. A. E. Cameron, Mr D. A. Mithen, Mr J. D. Pollock, Mr William Wolfe, Capt. J. M. A. Yerburch. *Secretary to the Committee*: Mr D. C. Fisher. The Committee met in April and November 1978.

Wales

The Rt. Hon. J. D. Gibson-Watt (*Chairman*), Mr B. Davies, Mr D. Davies, Mr J. M. Hunter, Mr T. O. Lewis, Mr J. W. L. Zehetmayr. *Secretary to the Committee*: Mr E. G. Owen. The Committee met in June and October 1978 and March 1979.

Regional Advisory Committees

The membership of the Committees at 31 March 1979 was as follows:—

ENGLAND

North-West Conservancy

Mr J. L. Benson (*Chairman*), Mr G. Price Bowring, Mr J. E. Croasdale, Rt. Hon. The Lord Forester, Mr E. M. Hart, Mr F. G. Humphreys, The Earl of Lonsdale, Mr A. H. Unsworth, Mr R. Ward. *Secretary to the Committee*: Mr D. P. Pringle. The Committee met in April and September 1978 and February 1979.

North-East Conservancy

Mr J. Brocklebank (*Chairman*), Mr F. M. Berthele, Mr M. J. M. Bliss, Mr P. O. R. Bridgeman, Mr J. M. Coatsworth, Mr M. L. Richardson, Mr G. F. Stevenson, Mr J. C. R. Trevelyan, Major P. B. Walker. *Secretary to the Committee*: Mr D. L. Hendry. The Committee met in June and November 1978.

East Conservancy

Mr W. E. Lane (*Chairman*), Major G. K. Agnew, Mr R. W. R. Browning, Mr W. H. Darling, Major A. G. N. Hadden-Paton, Mr F. J. Massey, Mr P. H. Peck, Mr J. K. Royston, Mr R. C. Steele. *Secretary to the Committee*: Mr W. O. Wittering. The Committee met in September 1978 and March 1979.

South-East Conservancy

Mr P. H. L. Hills (*Chairman*), Mr T. J. Daniel, Viscount Falmouth, Dr W. P. K. Findlay, Mr D. T. Hodson, Mr H. Mackworth-Praed, Mr A. G. Porter, Mr J. H. Stenning, Mr B. T. Tompsett. *Secretary to the Committee*: Mr B. Tipping. The Committee met in April and October 1978 and March 1979.

South-West Conservancy

Major D. J. C. Davenport (*Chairman*), Mr W. H. Denniss, Mr L. S. W. Howard, Mr R. M. Moody, Mr M. Roper, Mr R. F. Worgan, Mr J. H. B. Workman, Dr T. W. Wright, Mr G. C. Wyndham. *Secretary to the Committee*: Mr J. E. Taylor. The Committee met in May and October 1978.

SCOTLAND

North Conservancy

Lt.-Col. A. E. Cameron (*Chairman*), Mr Ewan J. Brodie, Mr J. Evans, Mr A. N. S. Kinnear, Mr G. G. Lyon, Major A. McCall, Mr H. D. Skinner, Capt. R. W. K. Stirling, Mr A. F. F. Williamson. *Secretary to the Committee*: Mr T. S. B. Macbeath. The Committee met in June and October 1978.

East Conservancy

Dr Jean Balfour (*Chairman*), The Viscount of Arbutnott, Mr G. W. Christie, Mr N. Gordon-Smith, Mr T. Bruce Jones, Mr D. F. Ogilvie, Major R. N. Jardine Paterson, Mr J. G. Scalley. *Secretary to the Committee*: Mr E. G. Roberts. The Committee met in May and December 1978.

South Conservancy

Capt. J. M. A. Yerburch (*Chairman*), Mr J. Hunter Blair, Mr D. Bridges, Mr H. Crawford, Mr J. A. Crichton, Mr T. Y. Gibson, Admiral Sir Nigel Henderson, Mr R. A. McClymont, Capt. J. G. Milne-Home. *Secretary to the Committee*: Mr R. B. Stewart. The Committee met in April and October 1978.

West Conservancy

Mr William Wolfe (*Chairman*), Mr D. Brierton, Mr T. Doyle, Mr G. Farquharson, Mr A. Fleming, Capt. W. F. E. Forbes, Capt. P. L. Mackie-Campbell, Mr S. A. J. Oldham, Mr T. Smith. *Secretary to the Committee*: Mr F. S. Henderson. The Committee met in May and October 1978.

WALES

North Conservancy

Mr T. H. Owen (*Chairman*), Mr F. C. Best, Mr N. H. Gore, Mr J. M. Harrop, Mr R. ap Simon Jones, Mr D. R. L. Keogh, Mr V. Lloyd, Capt. D. Y. F. Myddelton, Major P. C. Ormrod. *Secretary to the Committee*: Mr G. H. Bowers. The Committee met in May and December 1978.

South Conservancy

Mr H. L. Knight (*Chairman*), Mr E. Bartlett, Mr C. J. S. Burd, Mr A. J. Llewellyn, Mr M. A. McLaggan, Mrs K. Neale, Mr R. G. Thomas, Mrs D. Walmsley, Mr R. H. Wheelock. *Secretary to the Committee*: Mr R. R. Davies. The Committee met in October 1978 and March 1979.

Home Grown Timber Advisory Committee

The membership of the Committee at 31 March 1979 was as follows:—

Sir Goronwy Hopkin Daniel (<i>Chairman</i>)	*Mr W. E. Lane
Mr W. J. Alsford	*Mr R. J. Lennox
*Dr R. H. Best	The Earl of Lonsdale
Mr A. J. Brownlie	Mr J. E. MacDonald
The Hon James Bruce	Mr D. J. Meakin
Mr J. G. M. Dawson	*Mr A. Mills
Lord Dulverton	*Mr R. Pierson
Mr A. B. L. Munro Ferguson	Mr J. V. Pomeroy
Hon. J. M. G. Galbraith	Mr H. Richardson
Mr J. Glegg	*Professor C. J. Taylor
Mr R. M. Harley	Mr R. G. Venables
Mr H. J. Keys	Mr R. N. J. Watson

*Independent Members

Secretary: Mr G. T. S. Campbell

With the exception of the independent members the membership was drawn from nominations received from the following bodies: Timber Growers' Organisation Ltd., Scottish Woodland Owners' Association Ltd., Home Timber Merchants' Association of England and Wales, Home Timber Merchants' Association of Scotland, National Coal Board, Timber Trade Federation of the United Kingdom, British Wood Chipboard Manufacturers' Association, Association of United Kingdom Wood Pulp Producers, Timber Research and Development Association Ltd.

The Committee met in June, September and December 1978 and March 1979. The Annual Report of the Committee is at Appendix II, page 36.

The Chairman, the Director General, the three full-time Commissioners and the Secretary of the Commission were present during meetings of the Committee. Part-time Commissioners and assessors from the Department of Agriculture and Fisheries for Scotland, the Department of the Environment, the Department of Industry and the Princes Risborough Laboratory (DOE) also attended one or more meetings of the Committee.

Technical Sub-Committee of the Home Grown Timber Advisory Committee

The membership of the Committee at 31 March 1979 was as follows:—

Mr H. Richardson	Timber Research and Development Association Ltd. (<i>Chairman of the Sub-Committee</i>)
Mr A. E. Aitkens	} Timber Growers' Organisation Ltd.
Major P. C. Ormrod	
Mr D. B. Crawford	Scottish Woodland Owners' Association Ltd.
Mr J. R. Maeer	} Home Timber Merchants' Association of England and Wales
Mr R. J. Tilley	
Mr T. S. Smith	} Home Timber Merchants' Association of Scotland
Mr J. E. McDonald	
Mr J. Henderson	Institute of Foresters of Great Britain
Mr A. W. Camburn	Association of United Kingdom Wood Pulp Producers
Col. D. A. Campbell	Royal Institution of Chartered Surveyors
Mr T. D. Stitt	National Coal Board

Secretary: Mr J. R. Aaron.

The Sub-Committee met in April, June and September 1978 and January 1979. The Annual Progress Report of the Sub-Committee is at Appendix II, page 37.

Advisory Committee on Forest Research

At 31 March 1979 the membership of the Committee was as follows:—

Professor P. F. Wareing (<i>Chairman</i>)	Professor J. D. Matthews
Professor J. P. M. Brenan	Professor L. Roche
Professor J. L. Harley	Professor A. J. Rutter
Professor J. P. Hudson	Professor T. S. West
Dr L. F. Levy	

Secretary: Mr N. E. Stutter.

The Committee met in December 1978.

Appendix II

Home Grown Timber Advisory Committee: Annual Report for the year ended 31st March 1979

The Committee began a new three-year term in August 1978. A major change was the enlargement of the membership to cater for four additional interests – nature conservation, environment, agriculture/land use and professional forestry. The new members are helping to give the Commission a wider range of skilled advice commensurate with the widening of its responsibilities over the past few years.

As reported last year, the Committee's case for investment grants for harvesting machinery was remitted back for further data. A Sub-Committee of the HGTAC subsequently obtained the required information and an amended case was endorsed by the full Committee at its December 1978 meeting. It is understood that the interdepartmental working group set up to look into the matter is now studying the revised case prior to reporting to Ministers.

An important issue discussed throughout the year, which continues to be of concern, was the state of the chipboard industry and the problems affecting it as a consequence of dumping from abroad. As the industry is a major user of wood residues and small roundwood, it has an important effect on the well-being of forestry. Representations were made on behalf of the Committee at Ministerial level to seek adequate controls against unfair foreign competition.

The report of the review group set up by the Forestry Commission entitled *The Wood Production Outlook in Britain*, which was circulated as a consultative document in March 1978, was the subject of detailed discussion. In general there was considerable support for the report's proposals for a greater expansion of forestry. It was agreed that further studies would be necessary with agricultural interests regarding the possible effects on food production of the alternative programmes put forward, but that these should wait until the Reading Centre for Agricultural Strategy's parallel study into *A Forestry Strategy for the UK* had been completed. From a forestry point of view, it was considered entirely reasonable to seek an enhanced share of the poorer agricultural land for planting purposes.

On EEC matters, the Committee welcomed the European Commission's paper *Objectives and Principles of Forest Policy*; the present version of the paper stemmed from consultations on an earlier draft and took into account many of the views of the bodies consulted. The Committee also discussed the proposal, made in conjunction with the above paper, that the present *ad hoc* meetings of the EEC Heads of Forest Services might be replaced by a standing advisory committee to the European Commission on questions affecting forestry. Ministers have still to take a formal view on these items.

Further consideration was given to the EEC Plant Health Directive and the proposals to extend the provisions against oak wilt to include controls over the import from the USA of sawn square-edged oak, as well as oak in the round. While the growers' organisations would have preferred a total ban on all North American oak imports, the Committee's view was that the trade should continue. It was accepted that in plant health matters there could be no absolute safety, only levels of risk, and that with the co-operation of all concerned the proposed new controls could be made to work and would reduce the risk to an acceptable level.

Regular reports on the measures against Dutch elm disease and on the marketing of elm were given throughout the year. Changes were also considered to the Commission's Dutch elm disease Orders, the Committee endorsing the Commission's recommendations that, in the heavily affected area, the emphasis should be on the selective removal of dead and diseased trees, and in the lightly affected area sanitation felling should be concentrated in specified areas where the disease levels were low.

The Director General gave periodic reports of overseas visits made by Forestry Commission staff, including his own attendances at the EEC Heads of Forest Services' meetings and his participation in the Eighth World Forestry Congress in Jakarta in October 1978.

Among other issues discussed briefly during the year were the import of cheap wood from South Africa, the use of plastic instead of wood for the manufacture of fish boxes, the Forestry Commission's plans for a census of woodlands and trees, and the consultancy study to be undertaken for the Commission by Messrs Jaako Poyry into the marketing of small roundwood. The Countryside Commission's consultative document on Areas of Outstanding Natural Beauty and the consultative document on the Future of Common Land, produced by an interdepartmental working party under DOE chairmanship, were also considered and the Forestry Commission's observations on them endorsed.

Throughout the year, the Supply and Demand Sub-Committee and the Technical Sub-Committee made regular reports. A report on the work of the latter is summarised below. The opportunity was taken to review and approve the revision of the terms of reference of the Technical Sub-Committee.

Annual Progress Report of the Technical Sub-Committee of the Home Grown Timber Advisory Committee for the Year ended 31st March 1979

Terms of Reference

1. The Sub-Committee's terms of reference, which in their present form had been in force since 1971, were scrutinised and recommendations for their revision were put to the main Committee. The following new terms of reference were accordingly approved in March 1979:—

- i. To advise the HGTA on —
 - (a) harvesting and other forest operations
 - (b) transport
 - (c) sawmilling and other processing
 - (d) utilisation of forest products
- ii. To examine, exchange and disseminate technical information within the forest industry.

Working Party on Current and Future Markets for Hardwoods

2. The Working Party met five times; it summarised evidence from many sources and began the preparation of its final report.

Ad-Hoc Group on Alternative Markets for Poplar

3. This Group was convened under the chairmanship of Col D. A. Campbell following the loss of the market for peeler logs for the production of match splints. At the two meetings which were held, special consideration was given to the possibilities for export and for plywood manufacture.

Working Party on the Future of Harvesting

4. In accordance with the recommendations of this Working Party, a nomination was sought from the Association of Professional Foresters to represent the interests of forestry machinery suppliers. The question of investment grants for harvesting machinery, emanating from this Working Party's report, was pursued by the parent Committee.

The Impact of Harvesting on the Environment

5. This subject had been under consideration for over two years, during which six papers were presented. A final document *Guidelines on Environmental Considerations in Harvesting Operations* was forwarded to the HGTA in March 1979.

Joint Building Research Establishment/Forestry Commission Programme of Research

6. The proposals for next year's work under the Joint BRE/FC Programme of Research were reviewed and progress in the project on Computer-aided Sawmilling was noted with particular interest. It was agreed to drop Handling and Processing of Wood Residues from the list of reserve projects as no major technical problems remain.

Utilisation

7. It was reported that, in drafting regulations relating to fire resistance, the Scottish Development Department intended to make use of British Standard 5268, which permits the use of all British softwoods with the exception of Western red cedar, instead of placing lower limits on the density of the wood.

8. As a direct result of work initiated by the Sub-Committee in 1970, it was reported that the Post Office were now willing to accept Corsican pine for telegraph poles. A joint project between the Forestry Commission and the Electricity Council to determine the acceptability of British timber, especially spruce, for use as power transmission poles was monitored. Information papers on whole-tree chippers and on problems resulting from the use of litter for poultry which had been contaminated by wood preservatives were noted.

Forest Management Matters

9. A situation report by the Commission's Work Study Branch was considered. This covered a prototype trailed single-rotary mouldboard plough, a lightweight D60 trailed plough, the 6x6 high-speed, rough-terrain ploughing tractor, the Shaw front-mounted flail weeder, a tractor mounted, controlled droplet applicator, the Dandi rotary ditcher and trials of two chainsaw-felling frame attachments.

Safety

10. The Sub-Committee received oral reports on the work of the Forestry Safety Council. It was reported that controversial proposals concerning lifting gear were to be re-examined. It was noted that the Council had approved individual first-aid kits designed for use in the forest.

'The Wood Production Outlook in Britain'

11. The members of the Sub-Committee commented on this discussion document, and their views with those of their constituent associations were conveyed to the Commission.

EEC Matters

12. The latest position on EEC regulations on drivers' hours was noted.

13. The Sub-Committee reviewed developments relating to the risk of introducing oak wilt and the remedial measures proposed in the draft EEC Directive.

Appendix III

Forestry Training Council

Annual Report for the year ended 31st March 1979

This was the seventh full year of the Council's work. Meetings were held at Forestry Commission Headquarters on 1 June and 5 October 1978 and 8 March 1979. There were two changes in membership. Mr R. G. Sangster, who had represented the Scottish Woodland Owners' Association since the formation of the Council, retired and his place was taken by Commander A. G. Claridge, the Secretary of SWOA. Dr P. G. Biddle replaced Mr J. W. Marshall as the representative of the Standing Committee on Arboricultural Education. The Management Committee met four times during the year, on 1 June, 5 October and 8 December 1978 and 8 March 1979.

Statistics were assembled on the quantity of training activity during 1977-78 and 1978-79. The number of courses leading to nationally recognised craft qualifications was 14 and total attendance rose from 158 to 211 (Table 1). The number of courses leading to nationally recognised supervisory and managerial qualifications was 7 and total attendance on these rose from 128 to 139 (Table 1).

Table 1
*Attendance on Courses for Recognised Craft, Supervisory and
Managerial Qualifications in 1977-78 and 1978-79.*

Courses	Grade and Type	1977-78		1978-79	
		Number of Courses/Students		Number of Courses/Students	
City and Guilds 012 Stage 1	Craft (young workers) Day and Block Release	7	114	10	148
City and Guilds 012 Stage 2	Craft (adult workers) Block Release	3	44	4	63
Totals for Craft Courses	.. .. .	10	158	14	211
Ordinary National Diploma	Supervisory 3-year sandwich ..	1	84	1	84
Certificate in Supervisory Studies	Supervisory Block Release	—	—	2	17
City and Guilds 012 Stage 3	Supervisory Block Release	2	28	2	26
National Diploma in Forestry	Managerial Residential ..	2	16	2	12
Totals for Supervisory and Managerial Courses	.. .. .	5	128	7	139

The English and Welsh Forestry Training Group and the Scottish Forestry Training Group arranged short courses for the private sector, and the Forestry Commission continued to provide short courses for their work force. The total number of trainee course days for forest workers rose from 11,682 in 1977-78 to 11,925 in 1978-79 (Table 2). Attendance of forest workers in the private sector was the same as last year and the number of trainee course days was almost double that of 1971-72 when the Forestry Training Council was formed.

The total number of trainee course days for supervisory and managerial staff rose from 3,006 in 1977-78 to 4,091 in 1978-79 (Table 2). Attendance on short courses of forest supervisors and managers in the private sector has increased seven-fold since 1971-72.

Table 2
*Attendance on Short Courses for Forest Workers, Supervisors and
 Managers during 1977-78 and 1978-79.*

Level	Source of Participants		1977-78 Trainee Course Days	1978-79 Trainee Course Days
Craft	Private Forestry		2,520	2,524
	Forestry Commission . .		9,162	9,401
	Total		11,682	11,925
Supervisory and Managerial	Private Forestry		1,163	1,714
	Forestry Commission . .		1,843	2,377
	Total		3,006	4,091

The courses and instructors for the private sector were provided mainly by the Forest Industry Centre at Inverness, Cumbria College of Agriculture and Forestry, the Forestry Commission, Merrist Wood Agricultural College, the University of Aberdeen, the Agricultural Training Board, the Furniture and Timber Industry Training Board, Forestry Training Associations, Hereford College of Agriculture, West of Scotland College of Agriculture, Scottish Woodland Owners' Association (Commercial) Ltd., Grampian Fire Brigade and Tayside Fire Brigade.

The Manpower Services Commission continued to provide Key Training Grant support to the Council, and the Highlands and Islands Development Board also provided financial help to trainees attending forestry training courses and towards the administrative costs of developing training in the Highlands. The Scottish Forestry Training Group under Mr Nelson Steward as group training development manager made steady progress toward financial self-sufficiency during the year.

Meetings were held with the National Proficiency Test Council to discuss ways of establishing a proficiency testing scheme for forestry.

The Forestry Sub-Committee of the Scottish Technical Education Council (SCOTEC) held its first meeting on 26 February 1979 and negotiations began with the Technician Education Council (TEC) for comparable qualifications throughout Great Britain. The Forestry Training Council continued to make grants to assist those who wished to complete City and Guilds Courses but were unable to obtain financial support from local education authorities or employers. During the year 19 awards were made under the Council's Grant Award Scheme.

The Forestry Training Council continued to work closely with the Forestry Safety Council. The Council again records with pleasure the willing co-operation of many people and organisations and particularly that of the Colleges providing courses in forestry, the Forestry Commission, the private sector of forestry and the Assessors.

Signed for the
Forestry Training Council

John D. Matthews
Chairman

J. McRitchie
Secretary to the Council

Members of the Forestry Training Council at 31st March 1979

Chairman

Professor J. D. Matthews

Employer Members

Mr A. F. F. Williamson	}	Scottish Woodland Owners' Association Ltd.
Commander A. G. Claridge		
Lord Norton	}	Timber Growers' Organisation Ltd.
Mr P. J. D. Donnelly		
Mr M. P. Shapcott	}	Forestry Commission
Mr J. F. Goodwin		
Mr A. G. Phillips		Association of Professional Foresters

Employee Members

Mr H. Crawford	}	Transport and General Workers' Union
Mr A. Mills		
Mr D. Keogh		
Mr J. H. Hose	}	National Union of Agricultural and Allied Workers
Mr S. Neale		
Mr R. Pierson		
Mr R. G. Braine		Civil Service Union

Education and Training Members

Mr A. I. MacNab	}	Forestry Education, Scotland
Mr A. P. B. Hamilton		
Mr A. G. Pyman	}	Forestry Education, England and Wales
Mr R. M. Boothroyd		
Mr J. Saddler		Furniture and Timber Industry Training Board

Forestry Society, etc., Members

Professor C. J. Taylor	Institute of Foresters of Great Britain
Mr R. S. Carlaw	Royal Scottish Forestry Society
Mr R. Rowland	Royal Forestry Society of England, Wales and Northern Ireland
Dr P. G. Biddle	Standing Committee for Arboricultural Education

Assessors

Mr R. H. Nelson	}	Scottish Education Department
Mr R. Naylor		
Dr T. W. Martin	}	Department of Education and Science
Mrs M. E. Granshaw		
Mr P. R. Wells		Manpower Services Commission

Secretary

Mr J. McRitchie	Forestry Commission
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Working Group on Forestry Qualifications

Professor C. J. Taylor (*Chairman*)
Mr J. F. Goodwin
Mr R. H. Nelson
Dr T. W. Martin
Mr A. I. MacNab
Mr R. G. Braine
Mr A. G. Pyman

Working Group on Grading of Craftsmen and Others in Forestry

Mr P. J. D. Donnelly
Commander A. G. Claridge
Mr J. F. Goodwin
Mr J. H. Hose
Mr R. G. Braine

Appendix IV

Forestry Safety Council

Annual Report for the year ended 31st March 1979

The Council met once during the year, on 18 October 1978 in Edinburgh, but in addition the Safety Guides Sub-Committee held three meetings.

Members of the Council were in attendance at a National Forest Machinery Demonstration organised by the Association of Professional Foresters at Lowther in Cumbria on 20 and 21 September 1978. A full range of Forest Industry Safety Guides was on display and aroused considerable interest.

Ten Forest Industry Safety Guides were published during the year. Two of these relate to the application of herbicides while others cover planting and associated operations. The remaining guides deal with brashing and pruning, chainsaw clearance of windthrow, extraction by skidder and first-aid.

A joint Electricity Supply Industry/Forestry Commission Working Party was set up to formulate practical guidance on the avoidance of danger from overhead electric lines and underground electric cables. It is the intention of the Council to disseminate this guidance as widely as possible within the forest industry by means of a Forest Industry Safety Guide.

Arrangements for the supply of first-aid kits have been completed and they should soon be generally available. With a view to reducing the size of the small personal kit, it was decided that certain items in it should be removed to the larger 'on site' kit.

The Agriculture Industry Advisory Committee of the Health and Safety Commission accepted the offer of the Council to examine and report on Swedish regulations regarding the sale, use and maintenance of petrol-driven chainsaws. The Council duly recommended to the Health and Safety Executive that similar regulations should apply in the United Kingdom with an effective date in relation to new saws of 1 January 1981. A suggested draft was prepared by the Council and this is currently under consideration by the Health and Safety Executive.

Members of the Forestry Safety Council at 31st March 1979

Col. D. A. Campbell	<i>Chairman</i>
Mr D. G. Whieldon	Timber Growers' Organisation
Mr K. J. Ramsay	Scottish Woodland Owners' Association
Mr D. J. Cooper	Home Timber Merchants' Association of England and Wales
Mr J. E. McDonald	Home Timber Merchants' Association of Scotland
Mr J. H. Hose	National Union of Agricultural and Allied Workers
Mr A. Mills	Transport and General Workers' Union
Mr R. Neale	General and Municipal Workers' Union
Prof. J. D. Matthews	Forestry Training Council
Mr M. P. Shapcott	Forestry Commission
Mr D. A. Bardy	Forestry Commission Safety Officer
Mr R. J. Bell	<i>Secretary</i>

Appendix V

The Commission's Objectives

Introduction

The Forestry Commission was established in 1919. Under legislation now consolidated in the Forestry Act 1967, it is charged with the general duty of promoting the interests of forestry, the development of afforestation, and the production and supply of timber and other forest products in Great Britain. This general duty includes that of promoting the establishment and maintenance of adequate reserves of growing trees, and until 1958 the Commission's principal objective was to build up a strategic reserve of timber. Since then, the emphasis has moved towards economic and social objectives, mainly the production of raw material for industry and providing employment in rural areas where jobs are scarce. The Commission also has the duty under the Countryside Acts to 'have regard to the desirability of conserving the natural beauty and amenity of the countryside'.

The Commission's powers under the Forestry Act include the collection and dissemination of forestry information; the development of education and training in forestry; the conduct of forestry research; the collection of information in order to perform its general duty of securing the supply of forest products; the provision of advice and financial aid to private forestry under appropriate conditions; the regulation of felling; and under the Plant Health Act 1967, the control of tree pests and diseases. The Commission exercises these powers in the interests of the forestry industry as a whole.

The Commission is also responsible for establishing and managing forests on land placed at its disposal by the Forestry Ministers. It uses its powers under the Countryside Acts to provide recreational opportunities and facilities for the general public consistent with its commercial objectives and considerations of sound forest management.

The Forestry Commission acts in the dual role of 'Forestry Authority' and 'Forestry Enterprise' with the following objectives.

The Forestry Commission as the Forestry Authority

To advance knowledge and understanding of forestry and trees in the countryside

All the Commission's activities contribute in some way towards the development of knowledge of forestry and trees in the countryside. It promotes greater understanding of forestry and trees by providing advice and information to Ministers, Parliament, local authorities and public agencies, to the forestry industry and the public in general.

To develop and ensure the best use of the country's forest resources; and to promote the development of the wood-using industry and its efficiency

The Commission is responsible for estimating current and future patterns of supply and demand. To do so it draws on its own experience as a major supplier and on the advice of the Home Grown Timber Advisory Committee, to provide the information required as the basis of sound commercial decisions for the management and future development of the wood-using industry.

To undertake research relevant to the needs of forestry

The Commission's main aims will be:

To undertake mainly applied research into the establishment, improvement, management, protection, and harvesting of forest crops, and as required, to undertake or support basic research related to the programme of applied research.

To develop efficient, economic and safe methods of working in the forest.

To undertake research on ecology, arboriculture, and other aspects of tree growing with the appropriate co-operation of other Government departments and agencies.

To make known the results of research.

To combat forest and tree pests and diseases

The investigation of pests and diseases and the dissemination of advice on combating them forms an important part of the Commission's research work. With the authority of the Plant Health Act, the Commission makes the Plant Health Orders necessary to enable it and other authorities concerned to prevent the entry and spread of pests and diseases, and to deal with any outbreaks which may occur.

To advise and assist with safety and training in forestry

The Commission is fully responsible under the relevant legislation for the training and safety of its own employees. For the private sector it also stimulates education in forestry and training in forestry practice, and encourages attention to safety measures through the Forestry Training Council and the Forestry Safety Council on which all sectors of industry are represented.

To encourage good forestry practice in private woodlands through advice and schemes of financial assistance and by controls on felling

The Commission is prepared to give general advice to private woodland owners and to explain how grant-aid and detailed advice may be obtained.

The Commission administers schemes of grant-aid for private woodlands with the principal objective of wood production. In achieving that objective it will take account of good land use, the establishment of a harmonious relationship with agriculture, and the use of management systems which protect and enhance the environment and safeguard sites important for the conservation of nature and for archaeology.

The Commission controls the felling of trees through a system of licensing.

The Forestry Commission as the Forestry Enterprise

To develop its forests for the production of wood for industry by extending and improving the forest estate

The principal objective of the Commission is the efficient production of wood for industry, either existing or projected.

In financial terms the aim is to obtain the maximum return from the total volume of wood sold from its forests. The specifications of the wood supplied must, of course, match the needs of industry as closely as possible, and there must also be close liaison with industry and a continuing review of supply and demand forecasts to ensure that increases in wood supply are matched by suitably phased expansion of industrial capacity.

The Commission will extend its forest estate by establishing new forests, mainly in the uplands. The area of land which can be planted each year will depend on Government forestry policy, and the Commission's ability to acquire sufficient suitable land to fulfil any programme given to it. New planting must meet financial criteria which take account of estimated future income and expenditure.

Although average yields of wood are high in Britain compared with other temperate countries, an increase in yields is possible. The Commission is continually seeking to increase yields by means of appropriate new techniques such as the use of more productive species and fertilising when the benefits justify the costs.

To protect and enhance the environment

The planting of new forests and the felling of areas of mature forest can bring about great changes in the landscape. While pursuing its main objective of wood production, the Commission designs its forests so that as far as possible they blend with the landscape.

The Commission manages a substantial broadleaved estate which is located mainly in the lowlands in the south of England, where the objective is to perpetuate the predominantly broadleaved character of the landscapes.

Forests are important habitats for wildlife, and the Commission follows management practices which take account of the needs of nature conservation. Where woodland sites have been identified by the Nature Conservancy Council as particularly important for nature conservation, the Commission gives special attention to maintaining the conservation objectives of the sites.

The Commission carries out all its work with a proper regard for its effect on the environment, and consults as necessary the appropriate authorities representing particular interests.

To provide recreational facilities

The Commission is conscious of the leisure potential of its forests and provides facilities for informal recreation and the enjoyment of quiet pursuits. It must ensure, however, that recreational developments are in harmony with the forest environment and do not conflict with conservation of the forest.

The main emphasis is on providing facilities for day visitors such as car parks, picnic places, viewpoints and forest walks, particularly where they are readily accessible to visitors from towns and holiday centres. Overnight accommodation – camping and caravan sites and forest cabins – is also provided where appropriate and financially viable.

To stimulate and support the local economy in areas of depopulation by the development of forests, including the establishment of new plantations, and of wood-using industry

Forestry can help to provide opportunities for employment in rural areas where they are often scarce. Manpower productivity has increased greatly over the years mainly through improvements in working methods and tools and by mechanisation, and the Commission's aim is to maintain this progress and contain the real cost of providing wood for industry. Where there is a special need to provide employment, the pace of mechanisation may be slowed provided the increase in real cost can be kept down. As the very large areas of forest established since 1950 begin to produce wood, more labour will be required to harvest and transport it, and to man the wood-using industries.

To foster a harmonious relationship between forestry and agriculture

New forests can be established only on land which has been devoted to another land use, usually hill farming. It is important that the two land uses occupy the sites best suited to each and the Commission aims to ensure a mutually acceptable relationship between the two. To this end the Commission consults the agricultural departments about its proposals to acquire land for planting.

In pursuit of the foregoing objectives, to manage the estate economically and efficiently, and to account for its activities to Ministers and Parliament

All activities are regularly reviewed in the light of expected costs and revenues, and constraints. In order to ensure the most effective use of resources, the latest research and work study information are used in setting operational standards.

The Commission has been given a target rate of return of 3 per cent in real terms on the assets employed except for investment in commercial recreation where higher rates apply. The target rate of 3 per cent is based on the return to be expected from good sites within a reasonable distance of markets. The accounts of the Commission show when a return below 3 per cent is expected as a result of undertaking new planting and restocking for social reasons on poor sites remote from markets. The accounts also show the net cost of providing forest recreation and of the special measures required in the interests of visual amenity and nature conservation, for which commercial objectives cannot be set.

At five yearly intervals the assets, mainly plantations, are revalued, performance for the period is measured against the target rate, and income and expenditure standards are set for each activity covering the ensuing five years. These standards are compared annually with actual costs and income. Costs and prices are monitored throughout the year by a detailed financial control system, and reviewed annually.

Appendix VI

The Commission's Landscape Design Policy

Introduction

Forests and woodlands are important parts of the landscape and the planting of trees or the felling of areas of mature forest can bring about great changes in the appearance of the countryside. The Forestry Commission's landscape design policy is based on the principles outlined in FC Booklet No 44 *The Landscape of Forests and Woods*.

While pursuing its main objective of wood production the Forestry Commission seeks to achieve an acceptable balance between efficient and timely forest operations and good landscape design.

New forests are designed to blend with the landscape as far as possible, and opportunities are taken to improve the pattern of existing forests so that they too blend sympathetically with the form of the land. The intrusive effects on the landscape caused by any forest operations are kept to a minimum.

Within the limits imposed by good silviculture and sound forest management, the range of age categories and species within forests is being extended in order to provide diversity.

In those landscapes which are predominantly broadleaved in character, as in many parts of the south of England, the aim will be to maintain that character.

New Planting

Planting on land which has not carried trees for centuries can have a major impact on the appearance of the countryside. The design of new forests, therefore, is very important and involves an analysis and understanding of the essential character of the landscape where trees are to be planted. Almost all new planting takes place on infertile sites in the uplands and it must be recognised that only a limited number of species, all of them coniferous, are capable of economic growth there.

Wherever possible the boundaries of new forests are designed to follow the natural land form. Every effort is made to avoid hard unnatural lines, and to prevent obscuring prominent landmarks and other interesting features such as crags, streams, waterfalls and gullies.

Broadleaved trees are retained where they are important for visual or nature conservation reasons, especially near water and bordering farmland.

Forest margins along important roads and streams are kept irregular and as informal as possible. Plough lines will be varied as far as safety and good management permit.

Harvesting

The forest is a renewable resource and harvesting is part of a natural and necessary sequence of events in forest management. The first harvesting in a crop may involve the removal of rows of trees which can have a temporary impact on the landscape until the tree canopy closes. Felling at maturity offers an opportunity to create diversity by altering the composition of the forest both in age and species.

While areas to be felled are governed by the age and condition of the crop, the shape of felling areas is designed as far as possible to reflect land form, and their size is related to the scale of the landscape.

In some areas, particularly where recreation is important, trees may be left standing beyond the normal age of felling to grow on to a large size to provide additional beauty.

In highly sensitive landscapes the Commission's aim is to use thinning methods which have the least visual impact.

Roads

Roads and bridges are essential for the efficient management of the forest, and the Commission takes all reasonable steps to minimise the effect of new road construction on the landscape.

Forest access roads will be needed and must lie roughly central to the main planting blocks. In general, these will run roughly parallel to the contours and will be unobtrusive. The critical point is the crossing of the central ridge. It is recommended that only one crossing of the ridge be made, and that this should be in the form of a long 'u' loop following the contours. It should occur at a low 'nick' in the ridge preferably lying immediately below, and wrapping around a small spur, so that practically no cutting or filling will be needed.

Recreation

Forests offer unique opportunities for informal recreation and the Commission welcomes visitors and makes provision for their enjoyment. Where there is any conflict between the demands of recreation and conservation of the forest, the latter will take precedence.

Facilities for recreation will be of simple and good design and will be carefully located in harmony with the forest environment.

Buildings

Buildings are required for a wide variety of forest purposes – houses, offices, workshops and visitor centres. The Commission aims at a high standard of design for all new buildings, and uses materials and colours compatible with local conditions.

Signs

Signs are needed to identify Forestry Commission property, facilities and activities and to direct and inform visitors.

A distinctive standard system has been designed for use throughout the Commission. All Commission signs conform to this standard, and numbers are kept to a minimum consistent with the identification of Commission property and the adequate direction and information of visitors.

Staff

The success of the Commission's landscape policy depends on well trained staff at all levels.

The Commission retains the services of an independent landscape architect as its consultant and also employs a small team of landscape architects. It promotes the principles of good design throughout the service to ensure that care for the landscape is a normal part of forestry practice.

Appendix VII

8th World Forestry Congress

‘Forests for People’

Jakarta Declaration

1. Indonesia was the generous host to the Eighth World Forestry Congress held in Jakarta from 16 to 28 October 1978. The Congress drew participants from 104 countries and territories and 17 international organisations.

2. The Congress *reaffirmed* the formal declaration of the Seventh World Forestry Congress, which had as its theme ‘The forest and socio-economic development’. The Eighth Congress, with the theme ‘Forests for People’ examined in depth how forestry might best serve human beings, individually and collectively. In consequence, the Congress *declared* that the world’s forests must be maintained, on a sustainable basis, for the use and enjoyment of all people.

3. The forest is a resource already under pressure from billions of people, striving to lift their standards of living. Since the last Congress, hundreds of millions more people are having to depend on an ever-decreasing area of forest. This situation places on governments and on their forest administrations an even greater responsibility than ever before to arrest degradation and to manage every hectare of forest to best advantage and in the best interest of all people. The Congress *recognized* that this was a major challenge to the forestry profession, and to all those in any way concerned with forestry activities.

4. The Congress was not dismayed at this challenge. It recognized that the world’s forests were still vast in extent, that they represented a renewable resource, that their biomass was by far the largest of all vegetation types, that the potential for sustained growth and production and for expansion was still immense. The Congress, however, and with a grave sense of urgency, *stressed* to all governments that time is running out and that unless effective measures are taken immediately forests will be unable to make the future contribution to mankind of which they could be capable. Furthermore, and because of the close and direct link between quality and quantity of water on the one hand and the extent and state of the forest resource on the other, the Congress *recommended* that every effort should be made to prevent water becoming so scarce as to affect biological production adversely.

5. Being acutely aware that the human population is still increasing by 70 million people every year, the Congress paid particular attention to the role which forests can play in improving the conditions for agricultural and livestock production, for instance, through shelterbelts, regulation of waterflow, erosion control, as well as a source of supplementary animal fodder in dry periods. The Congress *urged* an ever greater effort to use forests for these indirect means of ensuring and increasing food production. Moreover, foresters should look beyond their forest reserves to areas where the planting of trees can be of major benefit to people and to agriculture other than for the direct harvesting of timber.

6. By reason of the gravity of world food shortages, indirect means are not enough. In many countries, an enlarged concept of multiple-use forestry is required, one which encompasses the more direct production of food from forests and forest trees, as well as from wild fauna. The Congress also called attention to the fact that in recent decades, floods, droughts, and the spread of deserts have increased. This trend will continue unless proper land management, including reforestation, is undertaken by governments with urgency. The droughts and accelerated desertification in Asia, Africa, and Latin America – and the extremely destructive floods in Asia – have caused loss of lives and misery to millions. In recent years, however, there have been many examples of successful techniques in agroforestry which governments can use to halt these destructive trends. The Congress *urged* an increase in applied research in this field in order to enable governments to deal with such problems effectively.

7. As forests and forest trees are an essential element for maintaining the environmental stability necessary for the continuous production of food by rural communities, and meet some of their most basic needs, the Congress *affirmed* that it should be the concern of all in

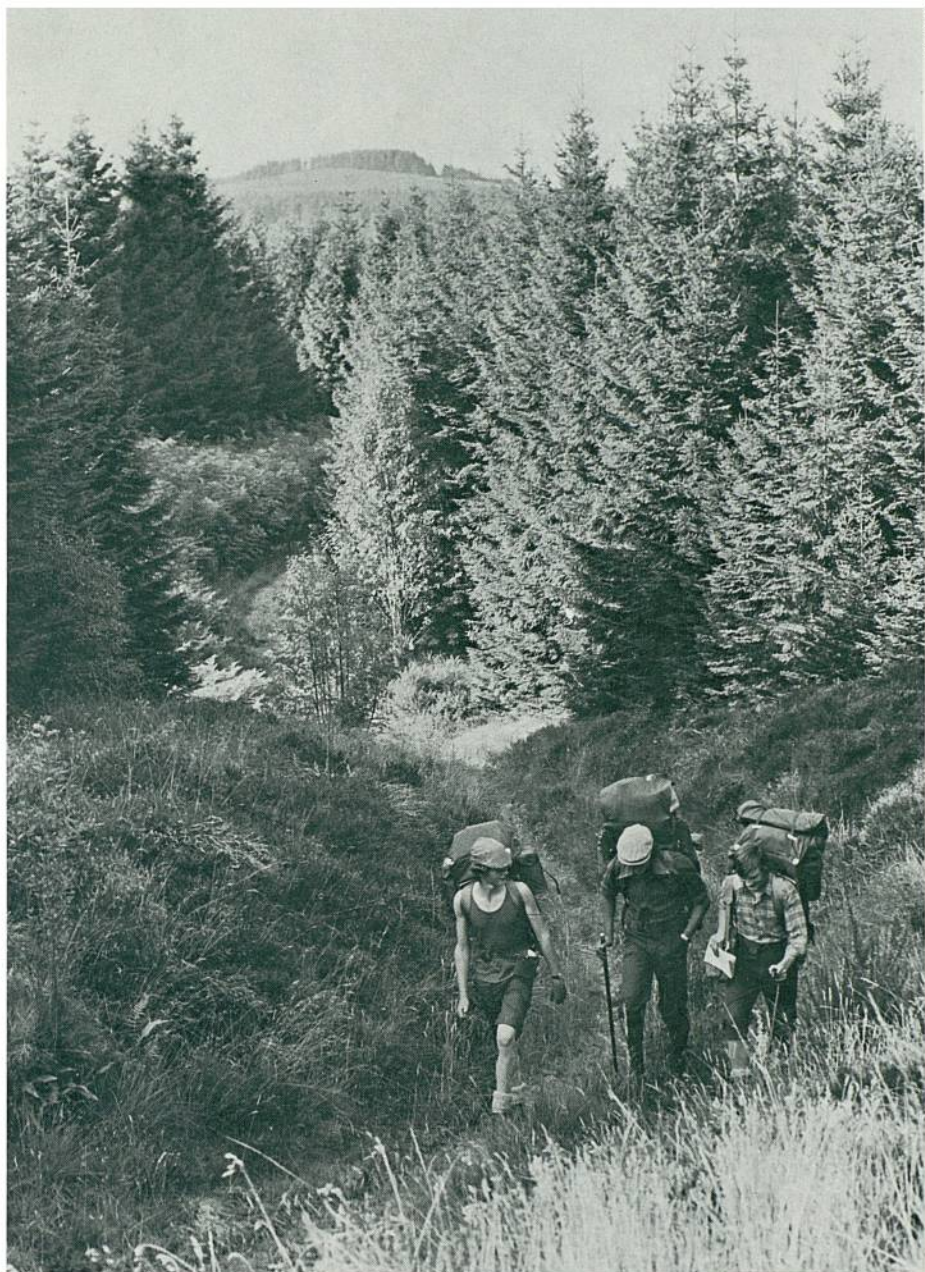


PLATE 1
A group of backpackers take a forest path to the
hills in north Wales

PLATE 2

The first commercial prototype of the hydrostatic skidder with radio-controlled winches built by Roadless Traction Ltd – based on an original design by the Forestry Commission. Here it is extracting first thinnings at Coed-y-Brenin

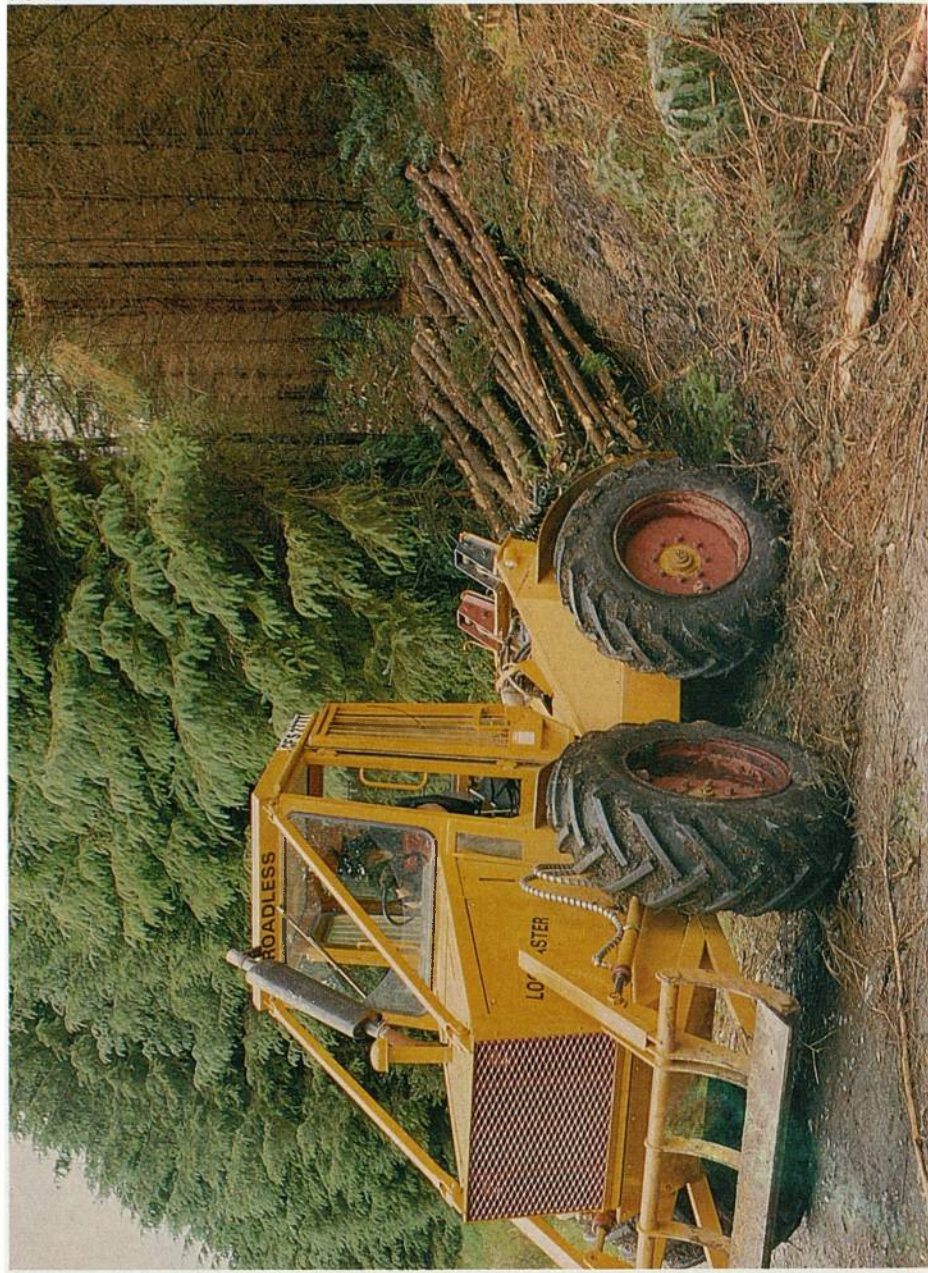




PLATE 3
Ultra low volume aerial treatment
of Lodgepole pine plantations
attacked by Pine beauty moth in
Naver Forest



PLATE 4

A containerised consignment of oak staves from North America for the manufacture of whisky barrels being examined by a Commission plant health inspector



PLATE 5
Extraction of windthrown trees by cable crane from
a steep hillside at Hafren Forest

PLATE 6
An area of deep peat in a remote
part of Torrachilty Forest being
ploughed in preparation for tree
planting



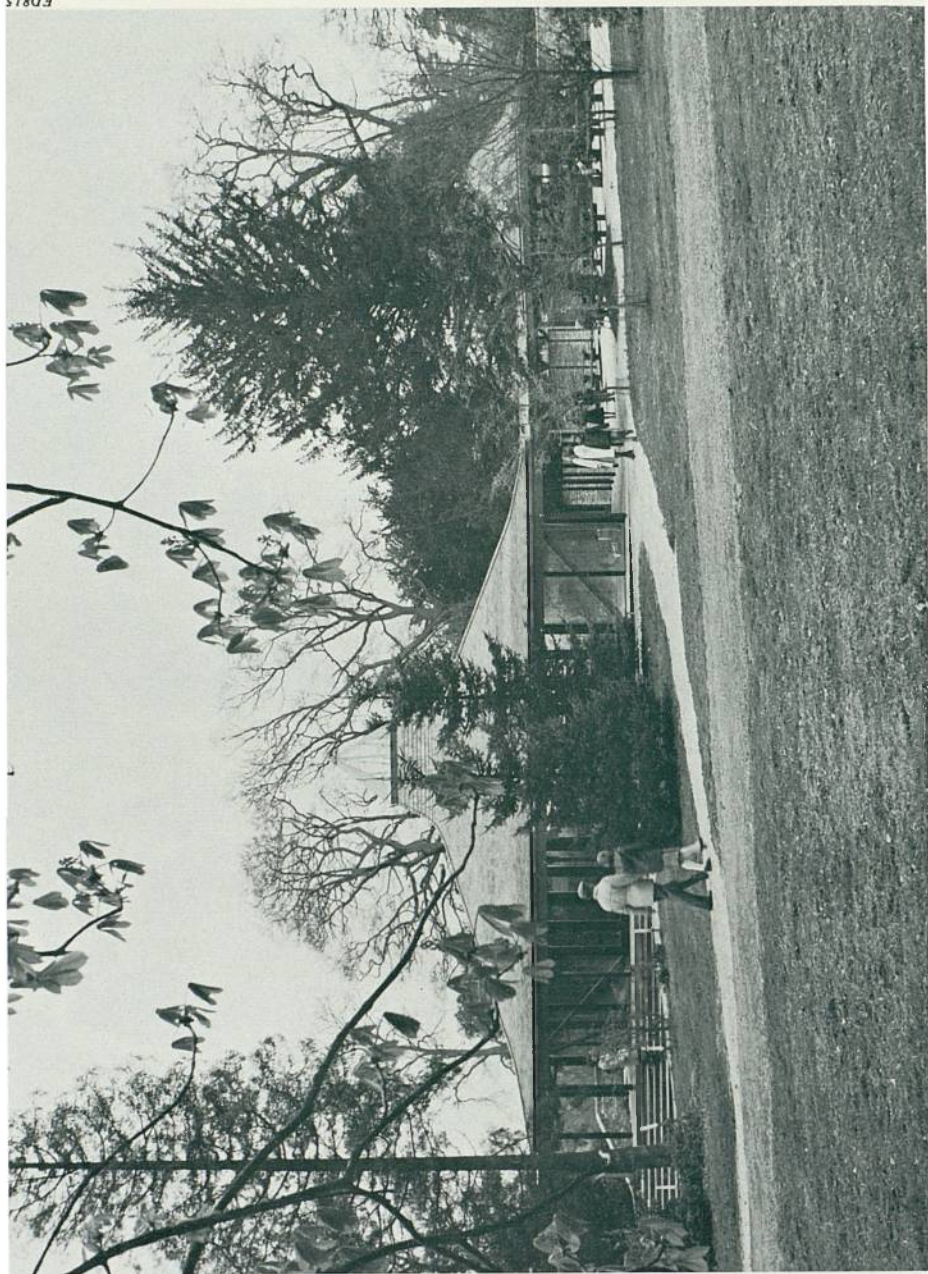


PLATE 7

Beech seedlings at an early stage of germination. This batch is being grown as part of a trial of container-grown trees for motorway planting

PLATE 8

The new Visitor Centre at
Westonbirt Arboretum in
Gloucestershire



the forestry profession that forestry make its full contribution to the development of rural communities, particularly of the rural poor of the developing world. A commitment to rural development on the part of foresters will be of no avail unless there is a firm commitment on the part of governments. Such commitment must include action to reduce inequalities in the countryside, notably in the distribution of land and in access to social and support services. It means encouraging self-reliance, mutual aid and cooperation. It means recognizing people as the motive force of development, not simply as the passive object of development.

8. Foresters must have the responsibility of managing forest lands and the natural resources existing thereon. Forestry administrations must have the rank, political backing, and effectiveness to discharge adequately such responsibilities to the best advantage of the people.

9. One of the most important changes since the previous Congress has been the energy crisis and its many implications for forestry and forest industries. The Congress was particularly concerned with the 'poor man's energy crisis', the growing firewood shortage brought about by population pressure, dwindling forests, and the increased cost of alternative means of cooking and heating. This situation has reduced even further the already intolerably low living conditions of some 1,500 million of the rural poor. Furthermore, the burning of plant residues and animal dung has seriously affected soil fertility and hence food production. The Congress *urged* all governments in countries with a major requirement for fuelwood, and not well-endowed with forest resources, to give the highest priority to its production in appropriate locations, with full participation of local people and suitably integrated with agriculture.

10. The Congress called for better utilization of the forest resource by seeking and practising more efficient harvesting and processing techniques. International organizations as well as developed countries should spare no effort to help developing countries possessing substantial forest resources properly to inventory and manage them on a sustainable basis.

11. Increased oil prices had also had an effect on forest industries and the people directly dependent on them. Often energy costs can be reduced and energy can be saved by more efficient plant design and plant operation, and therefore the Congress *urged* all forest industries to take steps towards this end with due consideration of a greater use of wood residues, whether industrial or from the forests themselves.

12. The energy crisis has a further and potentially far-reaching implication for forestry – the possibility for forests to become an important source of high grade as well as low grade energy. Because of the interdependence of liquid and gaseous fuels and chemicals, forests offer an equally exciting opportunity for providing the synthetic organic materials so indispensable to modern society and which are now produced from fossil fuels. The Congress brought to the attention of governments and international technical and financing organizations this important new role which forests may be asked to play, *urging* the early intensification of the necessary programmes of research and development.

13. The introduction of forest management and protection have usually led to welcome increases in productivity of the land, both forest and farm land. But, unfortunately, this has often not been true of the world's tropical forests – and more than half of the world's forests are in the tropics. Large areas of these forests, all located in developing countries, have suffered significant deterioration in quality and reduction in size. The greatly expanded rate of removals over recent years has concentrated on prime species, often for unprocessed export, and this selective exploitation has left a poorer quality forest, badly damaged. But even more important, and largely unrecognized, is the serious human and ecological problem of shifting cultivation in the tropics. It is responsible for large-scale degradation of both forests and crop lands. Therefore, the Congress *emphasized* the importance of restoring productivity to present deforested areas, also for the sake of the hunter-gatherer living entirely off the tropical rain forest.

14. Because of this situation, the Congress *stressed* the need for comprehensive forest land management, industries to be reorganized and new technologies to be adopted in order to use more effectively smaller logs and a wider range of species. It also *urged* developing countries to undertake further processing and to produce a wide range of products for both domestic consumption and export. The utilization of the forest resource must be aimed at enhancing the welfare particularly of the communities living or working in the forest and, more generally, of all the people of the country possessing such a resource. The implementation of this must be based on an adequate inventory and monitoring of changes in tropical forest cover.

15. The Congress *urged* that forest services should assume a leading role in evaluating proposals for the establishment of both small and large-scale forest industries, according to

the size of the market and the resource available, as well as the managerial and technical capability of the country. Whereas large-scale forest industries are necessarily capital intensive, forestry is generally labour intensive, as often is smaller-scale industry. Although mechanization of some activities may be desirable, the important role which forests can play in providing employment suggests that in some circumstances the labour intensive role of forestry should be deliberately preserved, at least in the short term. More modern and sophisticated technologies might be warranted in future if the utilization of the forest resource brings about real development.

16. The Congress strongly *emphasized* the important role which forest products other than timber play in the life of rural communities depending on the forests. These products play a vital role in providing employment opportunities and increasing the living standard of rural people, raising the number of people supported by forests. The Congress therefore *recommended* that forest services and international organizations should work for the conservation, promotion and rational utilization of such products.

17. The Congress *urged* governments to take appropriate corrective action, including changes to the social and economic structures wherever needed, with respect to unsatisfactory health, safety, status and remuneration conditions of forest workers. There was an urgent need for a more highly trained work-force, and the Congress *stressed* that governments should devote more resources to the initial and continuing training of workers, technicians and professionals in both forestry and forest industries.

18. The Congress *supported* the view that forestry should offer equal employment opportunities to men and women, and that steps should be taken to increase the proportion of women employed.

19. Recognizing that forests have an important bearing on many aspects of the quality of life, the Congress *stressed* that foresters have a responsibility to give a positive lead in regard to environmental impacts and choices between different uses and different mixtures of uses.

20. Stressing also the important role of forests and trees for recreation and tourism, the Congress *insisted* that the cultural, social and economic needs of people actually living in and near the forests be always considered in using forests for recreation or promoting tourism, and that use should not lead to forest site deterioration.

21. Recognizing that it is important to mankind's future to preserve representative areas of all major forests as gene pools, scientific benchmarks, habitats for wildlife, and as examples of man's cultural heritage, the Congress *urged* all governments to preserve as part of normal balanced land use, adequate areas of every type of forest and give them full and permanent legal protection as National Parks or other Protected Areas. Efforts should be intensified to search out species of potential benefit to mankind and to develop their use.

22. Research will play an essential role in achieving the goals of the Congress and the objectives stated herein. A sound scientific and technical foundation is required for the wise use of all forest resources. The Congress *recommended* that research should be encouraged and strengthened for the benefit of people of the world who depend on trees and forests for their economic and social well-being.

23. The Congress drew attention to the necessity for the increasing needs in scientific, technological and managerial information to be met efficiently. Existing forestry information and documentation services should be supported, and their further development encouraged. The activities of international, local and specialized information services should be coordinated.

24. The Congress *noted with concern* that, if present trends continue and potential demands materialize, there is the prospect of a serious gap between the world's needs for industrial and other wood products and the capacity of the world's forests to supply these and other essential goods and services. This gap can only be avoided if the shrinkage of the forest area is halted, if natural forests are properly managed, if harvesting is more complete and more efficient, if there is subsequent full and prudent use of all products harvested, if large areas of successful plantations are created and intensively managed, and, finally, if the return from forest utilization reaches the communities owning, living, or working in the forests. The Congress *called on* all foresters to reaffirm their total commitment to resource conservation, resource renewal and resource expansion.

25. In order to strengthen the role of forests for people, especially the poorest sectors of the population, the Congress finally *emphasized* the importance of:—
– the contribution of forests (without detriment to their continued existence for future generations) to the economic development of the least favoured regions;
– the development of international cooperation in the fields of inventory compilation and forest resource management and conservation, particularly in developing countries;
– intensification of forest productivity within the framework of integrated land management;
– the creation of jobs in rural areas.

26. Those governments which have not yet proclaimed an official forest policy *are urged* to do so, including the relevant principles of this Congress declaration as keystones of their manifesto.

(signed)

Soedjarwo

President

8th World Forestry Congress

Jakarta, 28 October 1978

Appendix VIII

New Publications

The following eleven new priced publications were issued through Her Majesty's Stationery Office.

Reports

Fifty-eighth Annual Report of the Forestry Commissioners, 1977-78 (£2.50).
Report on Forest Research 1978 (£2.25).

Bulletin

No. 14. Forestry Practice, edited by O. N. Blatchford (£3.50).

Booklets

No. 44. The Landscape of Forests and Woods, by Dame Sylvia Crowe (£3.50).
No. 46. Managing Small Woodlands, edited by R. E. Crowther (90p).

Forest Records

No. 116. The EEC Plant Health Directive and British Forestry, by D. H. Phillips (70p).
No. 117. *Gilpinia hercyniae* – a Pest of Spruce, by D. J. Billany (50p).
No. 118. Woodland Mice, by J. Gurnell (70p).
No. 119. The Pine Looper Moth, by D. Bevan and R. M. Brown (50p).

Leaflets

No. 70. Forest Ploughs, by D. A. Thompson (60p).
No. 73. Chemical Repellants, by H. W. Pepper (35p).

Research and Development Papers

No. 119. The Health and Safety of Forest Workers, by D. A. Bardy.
No. 120. The Training, Motivation and Social Promotion of Forest Workers, by J. F. Goodwin.
No. 121. The Assessment of the Forest Resource Base, by G. J. Francis.
No. 122. Genotype/Site Interaction in Tree Breeding, by R. C. B. Johnstone and C. J. A. Samuel.
No. 123. Research Aspects in Forestry for Quality of Life, by G. D. Holmes.
No. 124. The Impact of Forestry on Recreation, by C. Bancroft.
These six papers were prepared by the Forestry Commission for the 8th World Forestry Congress held in Jakarta, Indonesia.

Arboricultural Leaflets

The Stationery Office also published for the Department of the Environment the following leaflets which had been prepared by the Forestry Commission in connection with the continuing arboricultural research programme:

No. 2. Honey Fungus, by C. W. T. Young (70p).
No. 3. Sooty Bark Disease of Sycamore, by B. J. W. Greig and R. G. Strouts (40p).
No. 4. Virus and Virus-like Diseases of Trees, by J. I. Cooper (70p).

Other Publications

The Catalogue of Publications was revised. In addition revisions of Booklets 26 and 38 were prepared and published.

Appendix IX

Financial Tables

- 1. Forestry Fund Receipts and Payments
- 2. Expenditure on Forestry Authority Services

Table 1

STATEMENT OF FORESTRY FUND RECEIPTS AND PAYMENTS
in the year ended 31 March 1979

<i>Previous Year £000</i>		<i>Receipts</i>	<i>£000</i>
24,700	Grant-in-Aid		29,310
27,574	Sales of Timber		27,270
1,766	Disposals of surplus assets ..		1,713
6,520	Miscellaneous		7,796
<hr/>			<hr/>
60,560			66,089
(457)	Increase in working balance		498
<hr/>			<hr/>
61,017			65,591
		<i>Payments</i>	
32,902	Salaries, wages and related expenses		35,941
4,055	Pensions and gratuities to retired staff		4,772
14,324	Materials, contract services and general expenses		14,574
	Acquisition of land, buildings and plantations and construction of		
2,494	buildings		2,969
4,813	Machinery and equipment		4,271
	Grants to private woodland owners (£2,134,000), universities,		
1,356	institutions, etc		2,157
1,073	Remittances of VAT to Customs and Excise		907
<hr/>			<hr/>
61,017			65,591

NOTES ON TABLE 1

General

1. Expenditure incurred by the Forestry Commissioners in the exercise of their powers in the performance of their duties is financed from the Forestry Fund which was constituted under Section 8 of the Forestry Act 1919. All sums received by the Commissioners are paid into this Fund.

2. Receipts and payments are shown inclusive of VAT where applicable.

Receipts

3. The Grant-in-Aid of the Forestry Fund voted by Parliament for 1978-79 was £34,810,000 of which £29,310,000 was drawn into the Forestry Fund. The remaining balance of £5,500,000 will be surrendered to the Consolidated Fund.

4. Receipts from sale of timber fell by £304,000 as a result of reduced demand in a depressed market.

5. There was a slight drop of £53,000 in receipts from the disposal of surplus assets due to delay in completing some transactions.

6. Miscellaneous receipts rose by £1,276,000 due to increased sales of venison (£204,000), increased charges for campsites and forest cabins and greater usage as more cabins became available (£243,000), increased estate income from higher rents and royalties on mineral workings (£369,000), higher income from agency work, mainly motorway planting (£229,000), and other income from salaries of seconded staff, research work, transfer payments, cash discounts, pension contributions, repayments of private woodland grants, etc, increased due to higher prices being charged and greater activity (£231,000).

Payments

7. Payments of salaries, wages and related expenses rose by some 9 per cent due to increased rates of pay.

8. Payment of pensions and gratuities to retired staff and their dependants rose by £717,000 due to the award of higher superannuation benefits and an increase in the number of pensioners.

9. The cost of materials, contract services and general expenses rose due to the impact of inflation and also to increases in the harvesting, roadwork and recreation programmes. However industrial action at Scottish Office Computer Services prevented the payment of bills in the final six weeks of the financial year which offset the above increases.

10. Expenditure on acquisitions and construction of buildings rose by £475,000 mainly due to substantial price increases for land and building work offset by the difficulty of acquiring suitable land and the delay in bill payment at the latter part of the year as a result of industrial action. The area of plantable land acquired decreased to 5,675 hectares compared with 6,865 hectares in the previous year and the average price paid per hectare increased to £295 compared with £164 per hectare in 1977-78.

11. Expenditure on machinery and equipment fell by £542,000 although the planned programme was increased. The fall in expenditure can be wholly attributed to the effects of the industrial action in the latter part of the year.

12. Expenditure on grants to private woodland owners, universities, institutions, etc, rose by £801,000 following the increases in the rates of private woodland grants and in the area planted.

13. Remittances of net VAT to Customs and Excise which relate to transactions taking place in the calendar year decreased by £166,000 compared with 1977-78.

Table 2

EXPENDITURE ON FORESTRY AUTHORITY SERVICES
in the year ended 31 March 1979

<i>Previous Year £000</i>		<i>£000</i>
	Services to Private Woodland Owners	
	Grants under Dedication Schemes	
27	Basis I	37
192	Basis II: Planting Grants	256
719	Management Grants	899
223	Basis III: Basic Grant	599
41	Broadleaved Supplement	50
—	Management Grant	115
—	Native Pinewood Planting Grants	9
27	Approved Woodlands Planting Grants ..	17
38	Small Woods Planting Grants	203
—	Other Grants	33
30	Miscellaneous	36
849	Overhead Expenses	987*
<u>2,146</u>		<u>3,241</u>
69	Less Miscellaneous Income	103
<u>2,077</u>		<u>3,138</u>
	Special Services	
236	Licensing of Felling	261*
599	Information and Shows	675*
729	General administration (EEC, fiscal and regulatory duties and including £884,000* overheads)	892
<u>1,564</u>		<u>1,828</u>
	Research and Development	
983	Silviculture	1,052
288	Genetics	259
70	Physiology	74
32	Seed Research	37
146	Site Studies	171
411	Protection	472
183	Statistics	198
127	Communications	163
143	Westonbirt and Bedgebury Arboreta ..	134
52	Experimental Workshops	60
69	Grants to Universities	69
507	Work Study	540
591	Field Surveys	829
<u>3,602</u>	Total (includes £187,000* overheads)	<u>4,058</u>
1,621	Less allocation to Forestry Enterprise (Statement 1 on page 87) ..	1,826
<u>1,981</u>		<u>2,232</u>
5,622	Net Total expenditure in year ..	7,198
4	Notional Sickness and injury benefit	4
<u>5,626</u>		<u>7,202</u>
	Change in Assets	<i>£000</i>
(9)	Decrease – Current	119
104	Decrease – Fixed ..	115
<u>95</u>	Net decrease	<u>234</u>
<u>5,531</u>	Amount of Grant-in-Aid appropriated for the Forestry Authority	<u>6,968</u>

* Statement 11 of Forestry Enterprise Accounts page 95, £2,994,000

NOTES ON TABLE 2

1. The Forestry Authority share of the Grant-in-Aid amounted to £6,968,000 compared with £5,531,000 last year.

Service to Private Woodland Owners

2. Net expenditure rose in the year by £1,061,000 to £3,138,000. This was principally due to a 30 per cent increase in the area planted with grants, following improvements in the support arrangements and also in part to the first payment of management grants under the Dedication Basis III scheme.

Special Services

3. Rises in staff costs and greater proportion of time spent by Headquarters staff on Forestry Authority matters account for the increase of £264,000 in the total cost of Special Services.

Research and Development

4. The total cost of Research and Development at £4,058,000 is £456,000 or 12 per cent higher than in the previous year. Preliminary work on the new census of all trees and woodlands and rises in staff costs are the principal reasons for the increase. During the quinquennium 1977/78–1982/83, 45 per cent of the net cost of Research and Development will be charged to the Forestry Enterprise and shown in Statement 1 Plantation Account. This allocation amounts to £1,826,000 in 1978–79 reducing the cost of Research and Development chargeable to the Forestry Authority to £2,232,000 last year.

Appendix X

Statistical Tables

Measurements in the Statistical Tables in the following pages are in metric values. Their imperial equivalents are listed below.

1 hectare=2·471 acres

1 acre=0·4047 hectares

1 kilometre=0·621 miles

1 mile=1·609 kilometres

Forestry Authority

DEDICATION SCHEMES FOR PRIVATE ESTATES POSITION AT 31ST MARCH 1979

Table 1

Area in hectares

	England		Wales		Scotland		Great Britain	
	Num- ber	Area	Num- ber	Area	Num- ber	Area	Num- ber	Area
<i>Basis I and II</i> Dedications in existence	2,455	212,227	503	31,327	1,143	242,554	4,101	486,108
<i>Basis III</i> Dedications in existence	84	3,024	28	1,439	142	18,729	254	23,192
Dedications in prepara- tion	219	12,337	58	3,371	291	41,386	568	57,094
Total	303	15,361	86	4,810	433	60,115	822	80,286

Notes:

- (i) A dedication exists when the Deed of Covenant or Agreement has been completed.
- (ii) Dedications in preparation cover those applications which have been approved but are not yet legally completed.

THE APPROVED WOODLANDS SCHEME FOR PRIVATE ESTATES POSITION AT 31ST MARCH 1979

Table 2

Area in hectares

	England		Wales		Scotland		Great Britain	
	Num- ber	Area	Num- ber	Area	Num- ber	Area	Num- ber	Area
Plans of Operations in existence at the begin- ning of the year ..	293	27,435	16	1,352	72	12,424	381	41,211
Terminations during the year	67	4,152	1	77	17	1,726	85	5,955
Plans remaining ..	226	23,283	15	1,275	55	10,698	296	35,256

Note: The Approved Woodlands Scheme was closed to new applications in June 1972 but existing participants were allowed to continue in the Scheme until their current plans of operations expired.

AREA OF PLANTING BY PRIVATE WOODLAND OWNERS FOR WHICH GRANTS
WERE PAID IN THE YEAR ENDED 31ST MARCH 1979

Table 3

Hectares

Country	In Dedicated Woodlands Basis I and II			In Dedicated Woodlands Basis III			In Approved Woodlands			In Small Woods Schemes			Total		
	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	All Planting
ENGLAND															
Conifer ..	152	704	856	148	69	217	4	20	24	117	132	249	421	925	1,346
Broadleaved ..	35	217	252	32	116	148	5	22	27	209	159	368	281	514	295
Total ..	187	921	1,108	180	185	365	9	42	51	326	291	617	702	1,439	2,141
WALES															
Conifer ..	101	15	116	460	22	482	—	4	4	10	15	25	571	56	627
Broadleaved ..	4	5	9	8	14	22	—	1	1	8	14	22	20	34	54
Total ..	105	20	125	468	36	504	—	5	5	18	29	47	591	90	681
SCOTLAND															
Conifer ..	898	953	1,851	5,425	157	5,582	27	—	27	137	127	264	6,487	1,237	7,724
Broadleaved ..	74	29	103	70	16	86	—	—	—	25	39	64	169	84	253
Total ..	972	982	1,954	5,495	173	5,668	27	—	27	162	166	328	6,656	1,321	7,977
GREAT BRITAIN															
Conifer ..	1,151	1,672	2,823	6,033	248	6,281	31	24	55	264	274	538	7,479	2,218	9,697
Broadleaved ..	113	251	364	110	146	256	5	23	28	242	212	454	470	632	1,102
Total ..	1,264	1,923	3,187	6,143	394	6,537	36	47	83	506	486	992	7,949	2,850	10,799

In addition it is estimated that the following areas were planted without grant aid:

England ..	168
Wales ..	12
Scotland ..	92
Great Britain ..	272

AREA OF PLANTING BY PRIVATE WOODLAND OWNERS FOR WHICH GRANTS WERE PAID IN
THE 10-YEAR PERIOD 1ST APRIL 1969 TO 31ST MARCH 1979

Table 4 Hectares

Year ended 31st March	England			Wales			Scotland			Great Britain		
	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total
1970			5,871			1,467			11,548			18,886
1971	3,270	2,407	5,677	1,213	264	1,477	14,398	1,153	15,551	18,881	3,824	22,705
1972	3,766	2,391	6,157	1,409	266	1,675	14,505	1,673	16,178	19,680	4,330	24,010
1973	3,496	2,234	5,730	1,292	250	1,542	15,233	1,269	16,502	20,021	3,753	23,774
1974	2,170	2,147	4,317	1,327	175	1,502	15,392	1,579	16,971	18,889	3,901	22,790
1975	2,033	1,633	3,666	1,234	123	1,357	15,037	1,287	16,324	18,304	3,043	21,347
1976	1,026	1,454	2,480	408	112	520	8,170	1,071	9,241	9,604	2,637	12,241
1977	775	1,156	1,931	723	125	848	5,734	643	6,377	7,232	1,924	9,156
1978	831	1,008	1,839	591	36	627	4,900	933	5,833	6,322	1,977	8,299
1979	702	1,439	2,141	591	90	681	6,656	1,321	7,977	7,949	2,850	10,799

Notes:
(i) This table does not include planting done without Forestry Commission grants.
(ii) Separate figures for new planting and restocking were not kept before 1st April 1970.

VOLUME OF TIMBER LICENSED FOR FELLING AND THINNING
ON PRIVATE ESTATES IN THE YEAR ENDED 31ST MARCH 1979

Table 5

Volume in thousands of cubic metres

	England	Wales	Scotland	Great Britain
Conifer	143	13	125	281
Broadleaved	230	11	36	277
Total volume	373	24	161	558
Number of licences issued	1,444	118	378	1,940

Note: 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 1979

Table 6

Hectares

	England	Wales	Scotland	Great Britain
Conditional licences	1,684	83	363	2,130
Unconditional licences	330	49	204	583
Total	2,014	132	567	2,713

Note: Conditional licences require the restocking of the land concerned.

Forestry Enterprise

LAND USE
AT 31ST MARCH 1979

Table 7

Thousands of hectares

	England	Wales	Scotland	Great Britain
Forest Land				
Under plantations	249.8	135.0	483.4	868.2
Retained scrub	1.9	1.7	3.4	7.0
To be planted	7.5	4.2	65.3	77.0
Total	259.2	140.9	552.1	952.2
Other Land				
Agricultural and grazing	12.7	11.2	107.0	130.9
Forest workers' holdings	0.7	0.8	3.2	4.7
Unplantable and miscellaneous (includes nursery land)	30.7	8.0	129.8	168.5
Total	44.1	20.0	240.0	304.1
Total area	303.3	160.9	792.1	1,256.3

NET AREA OF FOREST LAND ACQUIRED IN THE YEAR ENDED 31ST MARCH 1979

Table 8

Thousands of hectares

	England	Wales	Scotland	Great Britain
Plantations	—	—	—	—
Bare land for new planting	0.1	0.2	4.4	4.7
Total area	0.1	0.2	4.4	4.7

Note: This table represents the area of forest land acquired (plantations and bare land for new planting) after deducting areas of forest land sold or exchanged.

PLANTING IN THE YEAR ENDED 31ST MARCH 1979

Table 9

Hectares

	New Planting	Re-stocking	Total
England			
Conifer	656	1,348	2,004
Broadleaved	30	76	106
Total	686	1,424	2,110
Wales			
Conifer	555	882	1,437
Broadleaved	17	2	19
Total	572	884	1,456
Scotland			
Conifer	10,524	1,252	11,776
Broadleaved	60	7	67
Total	10,584	1,259	11,843
Great Britain			
Conifer	11,735	3,482	15,217
Broadleaved	107	85	192
Total	11,842	3,567	15,409

AREA PLANTED ANNUALLY BY THE COMMISSION IN THE 10-YEAR PERIOD 1ST APRIL 1969 TO 31ST MARCH 1979

Year ended 31st March		England			Wales			Scotland			Great Britain			Hectares
		New Planting	Re-stocking	Total	New Planting	Re-stocking	Total	New Planting	Re-stocking	Total	New Planting	Re-stocking	Total	
1970	..	2,357	1,972	4,329	2,028	550	2,578	14,121	1,464	15,585	18,506	3,986	22,492	
1971	..	3,040	2,387	5,427	2,491	857	3,348	17,427	2,324	19,751	22,958	5,568	28,526	
1972	..	2,251	1,923	4,174	1,821	598	2,419	17,686	1,956	19,642	21,758	4,477	26,235	
1973	..	1,735	1,419	3,154	1,469	771	2,240	16,174	1,590	17,764	19,378	3,780	23,158	
1974	..	1,552	1,348	2,900	1,417	762	2,179	15,433	1,211	16,644	18,402	3,321	21,723	
1975	..	1,239	1,384	2,623	1,412	649	2,061	17,010	1,461	18,471	19,661	3,494	23,155	
1976	..	1,487	1,043	2,530	1,131	476	1,607	14,651	1,723	16,374	17,269	3,242	20,511	
1977	..	1,302	1,170	2,472	1,096	793	1,889	13,148	1,194	14,342	15,546	3,157	18,703	
1978	..	1,148	1,164	2,312	769	937	1,706	12,206	968	13,174	14,123	3,069	17,192	
1979	..	686	1,424	2,110	572	884	1,456	10,584	1,259	11,843	11,842	3,567	15,409	

**AREAS OF PLANTATIONS AND VOLUMES OF TIMBER THINNED
AND FELLED IN THE YEAR ENDED 31ST MARCH 1979**

Table 11

Area in hectares;
Volume in thousands of cubic metres

	Felled		Thinned		Total Volume Felled and Thinned
	Area	Volume	Area	Volume	
England					
<i>Conservancy:</i>					
North-West ..	359	83	2,107	106	189
North-East ..	283	71	1,684	80	151
East ..	500	105	3,500	118	223
New Forest and South-East ..	160	35	2,136	68	103
South-West and Dean ..	365	89	1,686	82	171
Total ..	1,667	383	11,113	454	837
Wales					
<i>Conservancy:</i>					
North ..	438	109	2,352	111	220
South ..	438	130	1,913	89	219
Total ..	876	239	4,265	200	439
Scotland					
<i>Conservancy:</i>					
North ..	402	136	1,000	55	191
East ..	349	86	2,048	94	180
South ..	320	69	2,568	125	194
West ..	544	95	1,322	75	170
Total ..	1,615	386	6,938	349	735
Great Britain ..	4,158	1,008	22,316	1,003	2,011

SALES OF TIMBER IN THE YEAR ENDED 31ST MARCH 1979

Table 12

Thousand cubic metres

Description	England	Wales	Scotland	Great Britain
Trees sold standing	247.2	191.6	238.5	677.3
Converted*				
Round timber and saw logs ..	267.1	92.1	213.0	572.2
Telegraph and other selected poles ..	6.2	0.5	9.2	15.9
Mining timber	37.6	19.4	—	57.0
Posts and stakes	13.4	6.8	1.5	21.7
Pulpwood and boardmill material ..	158.7	74.2	194.9	427.8
Firewood	11.5	1.3	2.1	14.9
Miscellaneous	14.9	0.1	1.3	16.3
Poles sold in length (other than selected) ..	3.3	0.5	0.6	4.4
Total	512.7	194.9	422.6	1,130.2

* In addition the following volumes were converted and used internally for forest and estate purposes:

England ..	2.2
Wales ..	1.9
Scotland ..	1.8
Great Britain ..	5.9

PROPERTIES MANAGED BY THE COMMISSION
AT 31ST MARCH 1979

Table 13

Number

Type of Property	England	Wales	Scotland	Great Britain
Forest properties				
Foresters' houses	225	121	300	646
Forest workers' houses	660	184	825	1,669
Forest workers' holdings	73	62	150	285
Miscellaneous*	1,438	439	692	2,569
Total	2,396	806	1,967	5,169
Other properties†				
Farms and other agricultural subjects	532	559	811	1,902
Residential and other lettings	1,444	703	1,577	3,724
Total	1,976	1,262	2,388	5,626

* Miscellaneous covers hostels, bothies, offices, repair workshops and other buildings not normally let.

† In addition there are 2,392 sporting lettings.

PUBLIC RECREATIONAL FACILITIES
AT 31ST MARCH 1979

Table 14

Number

	England	Wales	Scotland	Great Britain
Camping and caravan sites*	25	1	9	35
Picnic places	361	125	123	609
Forest walks and forest nature trails	259	135	228	622
Visitor centres	12	6	11	29
Arboreta	11	9	5	25
Forest drives	4	1	2	7
Forest cabins and holiday houses	109	3	55	167

* In addition to these campsites, the Commission provides the following:—

- (i) five sites leased to the Caravan Club and two sites to the Camping Club of Great Britain and Northern Ireland;
- (ii) 42 sites set aside for youth camping;
- (iii) facilities for caravan rallies.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—ENGLAND

Table 15

NORTH-WEST ENGLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Arden, Hereford and Worcester, West Midlands, Warwick and Leics. . .	1,073	990	—	67	16	12	—	—
Bagot, Staffs . .	1,026	953	—	65	8	—	—	1
Blengdale, Cumbria . .	1,255	1,035	11	40	169	—	—	4
Bowland, Lancs . .	1,836	1,716	8	6	106	—	—	5
Cannock, Staffs . .	2,696	2,621	—	10	65	—	38	16
Dalton, Cumbria and Lancs	1,654	1,378	5	—	271	—	—	1
Delamere, Cheshire . .	969	937	—	—	32	—	15	6
Dunnerdale, Cumbria	951	805	22	—	124	—	—	3
Ennerdale, Cumbria	3,657	1,570	25	66	1,996	13	4	9
Greystoke, Cumbria	1,270	1,161	3	—	106	—	—	7
Grizedale, Cumbria . .	3,527	3,060	—	10	457	14	—	11
Inglewood, Cumbria	996	951	—	7	38	—	—	1
Kershope, Cumbria . .	5,734	5,266	—	42	426	5	10	24
Kinver, West Mid- lands and Staffs . .	299	280	—	—	19	—	—	2
Launde, Derby, Notts and Leics. . . .	891	864	—	20	7	—	—	—
Matlock, Derby and Cheshire	3,139	1,703	—	267	1,169	12	—	—
Mortimer, Salop, Hereford and Wor- cester	4,795	4,604	—	44	147	—	103	45
Sherwood, Notts . .	6,450	6,051	30	112	257	3	136	33
Shropshire Hills, Salop	1,299	924	—	107	268	—	8	1
Spadeadam, Cumbria and Northumber- land	6,583	4,430	22	1,130	1,001	156	3	1
Swynnerton, Salop and Staffs	1,020	975	—	30	15	—	2	2
Thornthwaite, Cum- bria	2,656	2,193	—	—	463	—	39	17
TOTAL	53,776	44,467	126	2,023	7,160	215	358	189

Note: Long amalgamated with Mortimer.

Table 15—continued

NORTH-EAST ENGLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-77		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Chopwell, Durham, Tyne and Wear ..	875	801	2	6	66	6	3	2
Cleveland, North Yorks and Clevel- land ..	1,697	1,497	77	58	65	16	1	1
Cropton, North Yorks	4,642	3,870	32	174	566	—	27	11
Dalby, North Yorks	4,748	3,772	—	11	965	—	41	31
Don, South, West and North Yorks ..	2,909	1,637	32	832	408	11	17	1
Falstone, Northum- berland ..	14,967	13,267	—	—	1,700	3	28	17
Hambleton, North Yorks ..	4,463	3,797	34	179	453	7	—	3
Hamsterley, Durham	3,725	2,810	—	726	189	—	—	6
Harwood, Northum- berland ..	4,525	4,057	—	123	345	—	5	6
Jervaulx, North Yorks and Durham ..	1,523	1,370	—	95	58	—	—	3
Kidland, Northumber- land ..	3,458	2,390	—	487	581	55	—	—
Kielder, Northumber- land ..	16,390	10,159	—	52	6,179	117	17	15
Knaresborough, North and West Yorks ..	1,276	1,197	—	33	46	3	3	1
Langdale, North Yorks ..	4,999	4,046	—	148	805	—	19	11
Osmotherley, North Yorks ..	1,592	1,493	—	14	85	—	1	1
Redesdale, Northum- berland ..	5,697	5,009	—	—	688	—	35	9
Slaley, Northumber- land and Durham	1,189	1,085	8	55	41	—	—	2
Thrunton, Northum- berland ..	3,626	3,124	—	218	284	88	—	10
Wark, Northumber- land ..	13,745	11,528	—	633	1,584	99	45	12
Wykeham, North Yorks ..	1,886	1,622	—	34	230	—	4	7
Wynyard, Cleveland Yorks, North Yorks and Humberside ..	593	561	—	31	1	—	—	—
	1,947	1,803	11	68	65	10	4	2
TOTAL	100,472	80,895	196	3,977	15,404	415	250	151

Notes: (i) Ampleforth and Rievaulx amalgamated to form Hambleton.

(ii) Simonside Wood formerly part of Rothbury has been added to Harwood.

(iii) Chillingham and Rothbury amalgamated to form Thrunton.

Table 15—continued

EAST ENGLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Aldewood, Suffolk ..	3,624	3,468	—	27	129	—	71	26
Amphill, Beds ..	820	665	80	35	40	4	3	—
Bardney, Lincs ..	3,041	2,925	17	6	93	—	10	5
Bernwood, Bucks and Oxon	888	697	191	—	—	—	—	—
Bramfield, Herts ..	639	603	12	15	9	—	7	—
Chiltern, Bucks, Oxon, Beds, and Herts ..	2,490	2,303	—	143	44	—	—	2
Hazelborough, Northants and Bucks	1,148	1,094	9	28	17	4	1	2
Kesteven, Lincs ..	2,076	1,985	2	14	75	—	32	2
Lavenham, Suffolk ..	811	807	—	1	3	—	—	—
Lynn, Norfolk ..	996	941	—	9	46	11	—	2
North Lindsey, Lincs Rockingham, Northants and Cambs	2,098	1,949	3	2	144	—	36	10
Thetford, Norfolk and Suffolk	2,864	2,618	85	50	111	—	—	6
Walden, Essex, Cambs and Herts	20,279	19,070	43	140	1,026	14	164	156
Wensum, Norfolk ..	705	647	42	6	10	—	—	—
Wymersley, Beds, Northants and Bucks	2,196	2,131	1	—	64	—	15	10
TOTAL	1,519	1,457	33	—	29	—	—	2
TOTAL	46,194	43,360	518	476	1,840	33	339	223

Table 15—continued

NEW FOREST AND SOUTH-EAST ENGLAND CONSERVANCY:	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Alice Holt, Hamp- shire, West Sussex and Surrey ..	3,189	2,903	16	16	254	—	19	7
Arundel, West Sussex	3,436	3,253	60	—	123	—	—	4
Bedgebury, Kent and East Sussex ..	3,962	3,641	—	—	321	—	4	13
Bramshill, Hampshire and Berks ..	2,490	2,357	49	24	60	—	12	9
Challock, Kent ..	2,579	2,559	2	—	18	—	2	8
Micheldever, Berks and Hampshire ..	2,412	2,321	31	4	56	—	—	7
New Forest, Hamp- shire	26,779	11,723	138	1	14,917	—	38	38
Queen Elizabeth Forest, West Sussex and Hampshire ..	4,266	4,045	88	7	126	—	8	2
Ringwood, Dorset ..	2,998	2,602	32	—	364	—	33	9
St. Leonards, East Sussex and West Sussex	1,748	1,554	10	—	184	—	—	1
Shipbourne, Kent and Surrey	1,127	1,026	34	45	22	2	6	1
Wight, Isle of Wight	1,884	1,702	20	—	162	—	11	4
TOTAL	56,870	39,686	480	97	16,607	2	133	103

Table 15—continued

SOUTH-WEST ENGLAND AND DEAN CONSERVANCY:	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Brendon, Somerset and Devon ..	1,545	1,383	9	20	133	8	24	6
Dartmoor, Devon ..	2,399	2,138	—	—	261	—	16	15
Dean Forest, Glou- cester, Hereford and Worcester and Gwent	10,772	9,574	—	147	1,051	1	41	43
Eggesford, Devon ..	1,157	1,106	18	13	20	—	16	5
Exeter, Devon ..	2,687	2,412	35	166	74	12	32	18
Hereford, Gloucester and Hereford and Worcester ..	2,355	2,043	—	304	8	—	9	7
Kernow, Cornwall ..	3,485	3,230	94	44	117	—	35	13
Mendip, Avon, Somerset and Wilts	1,411	1,353	12	1	45	—	8	5
Neroche, Somerset and Devon ..	2,057	1,798	—	51	208	—	24	—
Powerstock, Dorset ..	1,596	1,487	9	9	91	—	8	—
Quantock, Somerset	1,311	1,095	10	3	203	—	23	9
Savernake, Wiltshire, Hampshire and Berks	5,043	4,758	115	47	123	—	20	14
Torridge, Devon ..	3,681	3,373	77	80	151	—	58	20
Wareham, Dorset ..	4,834	4,180	101	26	527	—	17	11
Westonbirt, Gloucester	100	—	59	—	41	—	—	—
Wyre, Salop and Here- ford and Worcester	1,537	1,508	—	—	29	—	13	5
TOTAL	45,970	41,438	539	911	3,082	21	344	171

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—WALES

Table 16

NORTH WALES CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Aeron, Dyfed ..	2,390	2,289	20	18	63	—	—	3
Beddgelert, Gwynedd ..	3,972	3,196	32	50	694	—	—	13
Ceiriog, Clwyd ..	1,808	1,752	1	—	55	2	—	2
Ceri, Powys ..	1,857	1,842	2	—	13	—	9	24
Clocaenog, Clwyd ..	7,122	5,741	—	22	1,359	9	16	22
Clwyd, Clwyd ..	2,090	1,913	7	49	121	8	—	2
Coed Sarnau, Powys	3,104	2,985	29	53	37	—	—	6
Coed-y-Brenin, Gwynedd ..	9,307	6,403	52	625	2,227	49	14	26
Cynwyd, Gwynedd and Clwyd ..	785	721	—	—	64	—	3	4
Dyfi, Gwynedd and Powys ..	7,340	6,445	24	47	824	6	16	27
Dyfnant, Powys ..	3,295	2,559	—	158	578	—	20	6
Gwydyr, Gwynedd and Clwyd ..	8,085	5,897	53	18	2,117	10	6	24
Hafren, Powys ..	5,038	4,547	—	17	474	—	5	7
Mathrafal, Powys and Clwyd ..	1,576	1,490	5	—	81	—	1	3
Newborough, Gwynedd ..	1,791	1,485	9	1	296	—	—	2
Penllyn, Gwynedd ..	4,375	3,543	—	481	351	5	—	3
Radnor, Powys ..	2,499	2,426	5	—	68	2	57	20
Rheidol, Dyfed ..	5,449	4,236	34	227	952	5	1	3
Ystwyth, Dyfed and Powys ..	7,077	5,755	20	263	1,039	—	22	23
TOTAL	78,960	65,225	293	2,029	11,413	96	170	220

Table 16—continued

SOUTH WALES CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Brechfa, Dyfed ..	6,810	6,200	88	4	518	—	84	34
Brycheiniog, Powys..	1,617	1,505	—	—	112	—	16	20
Caeo, Dyfed..	2,129	1,898	43	11	177	—	16	13
Coed Abertawe, West Glam.	868	808	32	4	24	—	5	2
Coed Deufor, Dyfed	1,991	1,897	52	5	37	—	—	—
Coed Morgannwg: Crynant, West Glam.	3,250	2,363	53	444	390	131	13	3
Cymer, West Glam. and Mid Glam.	5,411	4,666	30	102	613	—	19	2
Margam, West Glam. and Mid. Glam.	4,765	4,150	170	21	424	2	62	15
Rheola, West Glam. and Mid Glam.	5,248	4,308	87	2	851	—	46	18
Coed Preseli, Dyfed	2,175	1,865	201	—	109	—	—	3
Coed Taf, Powys and Mid Glam. ..	2,569	2,119	21	30	399	49	8	3
Coed-y-Rhaiadr, Powys	2,512	1,666	221	241	384	25	103	—
Crychan, Powys and Dyfed ..	4,763	4,537	83	—	143	19	93	37
Ebbw, Gwent ..	5,163	4,426	127	19	591	—	84	8
Glasfynydd, Powys and Dyfed ..	1,493	1,418	—	44	31	—	24	17
Irfon, Powys and Dyfed ..	2,720	2,301	8	150	261	—	—	3
Mynydd Du, Powys and Gwent ..	1,468	1,304	—	23	141	—	—	7
Pembrey, Dyfed ..	1,978	1,268	17	—	693	—	3	2
Rhondda, Mid Glam.	4,617	3,106	—	651	860	102	24	—
St. Gwynno, Mid Glam.	3,936	3,292	—	71	573	49	60	8
Tair Onen, Mid and South Glam. ..	1,396	1,181	73	—	142	—	18	4
Talybont, Powys ..	1,601	1,506	15	—	80	—	7	4
Tintern, Gwent ..	3,899	3,804	29	—	66	—	29	13
Tywi, Powys and Dyfed ..	8,457	7,227	10	318	902	99	—	1
Wentwood, Gwent ..	1,072	1,005	54	—	13	—	—	2
TOTAL	81,908	69,820	1,414	2,140	8,534	476	714	219

Note: Slebech and Preseli amalgamated to form Coed Preseli.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—SCOTLAND

Table 17

NORTH SCOTLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Achnashellach, High- land	4,713	2,793	24	332	1,564	56	9	8
Affric, Highland .. .	28,743	6,878	—	942	20,923	104	3	2
Ardross, Highland .. .	9,854	7,000	88	1,839	927	77	—	8
Black Isle, Highland ..	5,863	5,370	29	—	464	—	8	13
Culloden, Highland .. .	7,531	5,780	2	574	1,175	—	26	11
Dornoch, Highland .. .	1,215	1,109	—	1	105	—	—	—
Farigaig, Highland .. .	4,391	3,333	100	30	928	42	1	4
Fiunary, Highland .. .	6,737	4,817	—	342	1,578	164	—	9
Glengarry, Highland ..	17,510	6,208	10	904	10,388	81	2	15
Glenrigh, Highland .. .	2,359	1,391	—	204	764	57	—	10
Glenurquhart, High- land	10,487	4,995	107	80	5,305	15	9	13
Helmsdale, Highland ..	1,548	908	—	334	306	48	—	—
Hoy Experiments Orkney Islands .. .	13	13	—	—	—	—	—	—
Inchnacardoch, High- land	9,578	6,003	81	354	3,140	3	60	18
Inshriach, Highland .. .	4,233	3,315	10	164	744	45	24	1
Leanachan, Highland ..	17,303	8,379	—	679	8,245	184	—	18
Mull, Strathclyde .. .	15,886	8,381	—	3,496	4,009	387	12	10
Naver, Highland .. .	12,536	6,167	—	1,671	4,698	213	32	—
The Queen's Forest Highland	2,644	1,535	—	—	1,109	—	—	1
Ratagan, Highland .. .	5,013	2,660	—	82	2,271	—	63	15
Rumster, Highland .. .	7,884	2,924	—	4,206	754	370	—	—
Shin, Highland	34,937	14,726	—	4,900	15,311	456	27	5
Skye, Highland and Western Isles .. .	21,142	7,294	90	2,683	11,075	318	57	6
South Strome, High- land	2,998	1,947	19	76	956	19	—	5
Strathmashie, High- land	18,650	4,416	—	25	14,209	—	87	3
Sunart, Highland .. .	13,449	6,056	—	736	6,657	214	30	11
Torrachilty, Highland ..	16,598	8,382	6	146	8,064	84	5	5
TOTAL	283,815	132,780	566	24,800	125,669	2,937	455	191

Table 17—continued

EAST SCOTLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Alltcailleach, Gram- pian	1,804	1,670	—	8	126	—	—	3
Banchory, Grampian	5,526	5,286	4	60	176	—	5	13
Bennachie, Grampian	7,062	5,277	3	604	1,178	133	8	10
Braes of Angus, Tay- side	4,951	3,565	5	258	1,123	24	—	2
Craigellachie, Gram- pian	5,271	4,466	—	523	282	114	3	2
Drummond Hill, Tay- side	3,584	2,550	41	544	449	4	18	8
Dunkeld, Tayside ..	5,224	3,903	66	939	316	47	—	18
Eden, Fife and Central	3,558	3,300	7	17	234	—	22	18
Forest of Deer, Gram- pian	2,849	2,570	1	135	143	—	18	11
Glenlivet, Grampian	4,634	4,296	7	—	331	—	10	2
Huntly, Grampian ..	10,211	8,690	—	122	1,399	19	—	21
Kirkhill, Grampian ..	1,199	1,166	—	1	32	—	4	2
Laigh of Moray, Grampian and	6,932	6,512	39	—	381	32	5	25
Highland								
Mearns, Grampian ..	7,022	5,900	17	130	975	7	5	8
Montreathmont, Grampian and	1,854	1,817	7	—	30	—	3	10
Tayside								
Ochil, Fife, Tayside and Central	4,445	3,831	27	209	378	77	12	8
Rannoch, Tayside ..	14,168	7,097	59	2,011	5,001	217	—	—
Speymouth, Grampian	10,567	9,587	3	485	492	17	9	10
Strathardle, Tayside	3,431	3,008	—	116	307	25	10	4
Tornashean, Gram- pian	4,473	3,227	—	470	776	87	—	2
Tummel, Tayside ..	8,343	5,418	100	530	2,295	171	1	3
TOTAL	117,108	93,136	386	7,162	16,424	974	133	180

Notes: (i) Tentsmuir and part of Blairadam amalgamated to form Eden.

(ii) Devilla and part of Blairadam amalgamated to form Ochil.

Table 17—continued

SOUTH SCOTLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Ae, Dumfries and Galloway	7,138	6,291	—	711	136	394	27	20
Arcleoch, Strathclyde and Galloway ..	5,064	3,723	—	1,288	53	231	—	—
Bareagle, Dumfries and Galloway ..	4,942	4,442	170	197	133	61	—	2
Bennan, Dumfries and Galloway	6,872	6,354	—	61	457	90	30	16
Carrick, Dumfries and Galloway and Strathclyde ..	17,141	8,277	—	1,535	7,329	228	11	10
Castle O'er, Dumfries and Galloway and Borders	5,495	5,367	—	—	128	—	34	21
Clatteringshaws, Dum- fries and Galloway	12,819	8,011	—	744	4,064	253	—	2
Clydesdale, Strath- clyde and Lothian	3,859	3,249	—	128	482	2	18	1
Craik, Borders ..	6,047	4,943	—	616	488	87	4	8
Dalmacallan, Dumfries and Galloway ..	4,057	3,085	—	495	477	238	—	8
Douglas, Strathclyde Dundeugh, Dumfries and Galloway ..	2,029	1,457	4	459	109	141	68	—
Elibank, Borders ..	3,706	3,037	—	203	466	—	—	5
Fleet, Dumfries and Galloway	5,118	4,105	—	528	485	227	2	5
Glentress, Borders and Lothian	6,809	6,341	—	33	435	—	—	7
Glentress, Borders and Lothian	4,403	3,959	—	117	327	74	15	9
Glentrool, Dumfries and Galloway and Strathclyde ..	22,914	12,899	2	270	9,743	42	16	4
Kirroughtree, Dum- fries and Galloway	6,344	4,249	—	9	2,086	—	—	13
Kyle, Strathclyde ..	5,823	4,453	—	862	508	149	2	—
Lammermuir, Borders	1,468	1,451	—	—	17	—	3	3
Moffat, Dumfries and Galloway and Borders	13,063	10,630	—	720	1,713	300	—	4
Newcastleton, Dum- fries and Galloway and Borders ..	3,846	3,759	—	9	78	—	106	17
Penninghame, Dum- fries and Galloway	6,962	6,470	—	152	340	327	3	3
Solway, Dumfries and Galloway	7,001	6,279	3	95	624	55	23	24
Stenton, Borders and Lothian	1,362	1,267	—	9	86	—	13	1
Upper Nithsdale, Dumfries and Galloway and Strathclyde ..	3,764	2,786	—	417	561	—	—	—
Wauchope, Borders ..	9,376	8,048	—	237	1,091	193	—	11
Bush Nursery, Lothian	6	—	—	—	6	—	—	—
Whittinghame Seed Orchard, Lothian	12	—	—	—	12	—	—	—
TOTAL	177,440	134,932	179	9,895	32,434	3,092	375	194

Note: Part of Clydesdale has been added to Douglas.

Table 17—continued

WEST SCOTLAND CONSERVANCY	Land use at 31 March 1979 (hectares)					During Year 1978-79		
	Total Area of Forest	Under Planta- tions	Retained Scrub	To be planted	Other land	Planting (hectares)		Pro- duction (000 cu. m.)
						New Planting	Re- stocking	
Achaglachgach, Strathclyde ..	10,337	4,434	160	3,100	2,643	312	—	4
Achray, Central ..	5,561	3,772	106	192	1,491	20	—	4
Ardgartan, Strath- clyde ..	13,150	5,130	212	29	7,779	11	33	14
Arran, Strathclyde ..	11,379	5,685	—	2,164	3,530	400	—	—
Barcaldine, Strath- clyde ..	7,828	4,553	251	308	2,716	9	9	10
Benmore, Strathclyde	10,979	5,676	147	407	4,749	94	28	13
Buchanan, Strathclyde and Central	6,474	3,385	186	124	2,779	112	40	2
Carradale, Strathclyde	6,575	2,971	41	2,131	1,432	139	—	2
Carron Valley, Strath- clyde and Central	4,708	4,034	—	267	407	22	34	7
Eredine, Strathclyde	6,956	4,477	32	692	1,755	210	—	6
Fearnoch, Strathclyde	6,015	4,507	149	752	607	245	—	3
Garelochhead, Strath- clyde ..	2,589	1,717	65	151	656	3	—	—
Glenaray, Strathclyde	7,454	3,912	108	1,835	1,599	192	—	—
Glenbranter, Strath- clyde ..	6,957	4,380	85	117	2,375	11	74	23
Glencoe, Strathclyde and Highland ..	8,665	4,566	51	19	4,029	54	—	9
Glendaruel, Strath- clyde ..	9,712	5,391	164	1,618	2,539	203	—	6
Glenorchy, Strath- clyde and Central	15,330	7,220	63	585	7,462	222	—	—
Inverliever, Strath- clyde ..	13,431	8,416	36	678	4,301	117	7	14
Kilmichael, Strath- clyde ..	11,497	8,464	17	337	2,679	27	24	11
Knapdale, Strathclyde	7,237	4,759	185	760	1,533	161	—	13
Loch Ard, Central ..	10,911	7,328	193	1,059	2,331	74	—	15
South Kintyre, Strath- clyde ..	11,855	8,766	47	1,642	1,400	605	—	2
Strathyre, Central and Tayside ..	9,506	5,023	—	1,676	2,807	—	47	12
Whitelee, Strathclyde	8,676	3,939	—	2,809	1,928	338	—	—
Chapelhall Depot, Strathclyde ..	2	—	—	—	2	—	—	—
TOTAL	213,784	122,505	2,298	23,452	65,529	3,581	296	170

Note: Raera amalgamated with Fearnoch.

Appendix XI

Maps

- 1. Forestry Commission Forests**
- 2. Forestry in Great Britain**

Map 1 – Forestry Commission Forests
showing name and location at 31st March 1979

Map 2 – Forestry in Great Britain
showing all Forestry Commission land and
those Private Woodlands managed under
Dedication and Approved Woodlands schemes

North Wales

██████

██████

██████

ADDRESSES OF THE MAIN OFFICES OF THE FORESTRY COMMISSION

Headquarters of the Forestry Commission:

231 Corstorphine Road, Edinburgh, EH12 7AT (031 334 0303)

Senior Officer for Wales:

Churchill House, Churchill Way, Cardiff CF1 4TU (0222 40661)

Director of Research and Development:

Alice Holt Lodge, Wrecclesham, Farnham, Surrey, GU10 4LH (042 04 2255)

Northern Research Station, Roslin, Midlothian, EH25 9SY (031 445 2176)

Conservancy Offices

England:

North-West: Dee Hills Park, Chester, CH3 5AT (0244 24006)

North-East: 1A Grosvenor Terrace, York, YO3 7BD (0904 20221)

East: Block D, Government Buildings, Brooklands Avenue, Cambridge
CB2 2DY (0223 358911)

New Forest and South-East: Southampton Road, Lyndhurst, Hants, SO4 7NH
(042 128 2801)

South-West and Dean Forest: Flowers Hill, Brislington, Bristol, BS4 5JY
(0272 713471)

Scotland:

North: 21 Church Street, Inverness, IV1 1EL (0463 32811)

East: 6 Queen's Gate, Aberdeen, AB9 2NQ (0224 33361)

South: Greystone Park, 55/57 Moffat Road, Dumfries, DG1 1NP (0387 2425)

West: Portcullis House, 21 India Street, Glasgow, G2 4PL (041 248 3931)

Wales:

North: Victoria House, Victoria Terrace, Aberystwyth, Dyfed, SY23 2DQ
(0970 612367)

South: Churchill House, Churchill Way, Cardiff, CF1 4TU (0222 40661)

ACCOUNTS 1978-79

BALANCE SHEET of the Forestry Commission Forestry Enterprise as at 31st March 1979, and ACCOUNTS for the year ended 31st March 1979, together with the Report of the Comptroller and Auditor General thereon.

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,659

,786

701

085

793

292

113

179)

501

678)

FORESTRY COMMISSION
ACCOUNTS OF THE FORESTRY ENTERPRISE FOR THE YEAR
ENDED 31 MARCH 1979
BALANCE SHEET AS AT 31 MARCH 1979

<i>As at</i> 31 March 1978 £000		<i>See Notes/ Statements</i>	£000	£000
Source of Funds				
CAPITAL				
423,943	Balance as at 1 April 1978		441,788	
17,845	Addition during year ..	Note 3	21,746	
441,788	Balance at 31 March 1979			463,534
BALANCES on accounts being accumulated to end of quinquennium (1982)				
Deficits				
(562)	Trading Accounts ..	Statement 8	(1,372)	
299	Plantations Variance ..	Statement 1 and Note 13	(1,678)	
(263)				(3,050)
57,944	CAPITAL MAINTENANCE RESERVE ..	Note 7		129,084
81,684	NOTIONAL SUPERANNUATION FUND ..	Note 8		93,959
581,153				683,527
Employment of Funds				
87,942	FIXED ASSETS ..	Note 9		117,717
NET CURRENT ASSETS				
6,447	Stocks and work in progress ..	Note 10	7,539	
6,916	Debtors and sundry debit balances ..		7,603	
909	Cash at bank and in hand ..	Note 11	1,990	
14,272			17,132	
3,746	Creditors and accrued expenses ..	Note 12	9,435	
10,526				7,697
482,685	PLANTATIONS at standard cost ..	Statement 1		558,113
581,153				683,527

The notes on pages 96 to 105 form part of these Accounts.

G. D. Holmes
Accounting Officer
26 November 1979

I have examined the above Balance Sheet and the annexed Statements 1 to 11 in accordance with the provisions of the Exchequer and Audit Departments 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 11 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, subject to the inaccuracies referred to in Note 23.

23 January 1980
Exchequer and Audit Department

Douglas Henley
Comptroller and Auditor General

FORESTRY COMMISSION

PLANTATIONS ACCOUNT FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>	<i>£000</i>
	At 1 April 1978: 862,553 hectares valued at			
405,241	standard (1977-78) cost			482,685
48,629	Revaluation adjustment	Note 7		43,442
453,870				526,127
	EXPENDITURE			
—	Plantations acquired		43	
2,939	Land planted	Note 9(v)	3,811	
3,215	Formation		3,071	
2,236	Protection		2,697	
1,713	Crop improvement		1,996	
438	Lease rents, supplies and miscellaneous		485	
2,133	Road construction		2,587	
1,289	Road maintenance		1,413	
1,621	Research and development		1,826	
5,634	Labour oncost	Statement 10	6,770	
7,297	Overhead expenses	Statement 11	8,005	
14,504	Interest	Note 5	16,955	
43,019				49,659
496,889				575,786
	INCOME			
236	Disposal of plantations		159	
5	Surplus on sale of Forest Estate properties	Statement 9	63	
502	Sundry income		479	
743				701
496,146	NET EXPENDITURE			575,085
	SUBSIDIES AND TRANSFERS			
5,263	Planting and restocking subsidies	Note 3(ii) and (iii)	5,260	
8,497	Transfer charge to Harvesting Trading Account for thinnings and fellings removed	Statement 4 and Note 15	9,533	
13,760				14,793
482,386	NET TOTAL			560,292
	At 31 March 1979: 875,240 hectares valued at			
482,685	standard (1978-79) cost			558,113
299	Variance from standard	Deficit	Note 13	(2,179)
—	Variance from previous year	Surplus	Note 2	501
299	Variance to date	Deficit		(1,678)

FORESTRY COMMISSION
FOREST RECREATION AND AMENITY ACCOUNT FOR THE YEAR
ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>
1,358	Direct expenditure ..	..	1,492
551	Labour oncost ..	.. Statement 10	664
1,544	Overhead expenses ..	.. Statement 11	1,538
152	Interest .. ..	.. Note 5	181
<u>3,605</u>			<u>3,875</u>
40	Less increase in stock		9
<u>3,565</u>			<u>3,866</u>
326	Income ..		440
<u>3,239</u>	Recreation and Amenity Subsidy ..	.. .. Note 3 (ii and iv)	<u>3,426</u>

Statement 3

COMMERCIAL RECREATION TRADING ACCOUNT FOR THE YEAR
ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>	<i>£000</i>
	(A) Campsites and forest cabins			
414	Direct expenditure ..	..	495	
70	Labour oncost .. ..	.. Statement 10	80	
181	Overhead expenses ..	.. Statement 11	176	
19	Interest .. ..	.. Note 5	21	
<u>684</u>				<u>772</u>
3	Less increase in stock			—
<u>681</u>				<u>772</u>
781	Income			897
<u>100</u>	Balance (Standard Surplus £196,000) ..	Note 14	Surplus	125
101	Interest on capital employed	Note 5		130
<u>(1)</u>	Balance in year after interest ..		Deficit	(5)
—	Balance from previous year ..		Deficit	(1)
<u>(1)</u>	Balance to date ..		Deficit	<u>(6)</u>
	(B) Shooting and Fishing			
64	Direct expenditure ..	..	68	
30	Labour oncost .. ..	.. Statement 10	35	
205	Overhead expenses ..	.. Statement 11	186	
15	Interest .. ..	.. Note 5	18	
<u>314</u>				<u>307</u>
303	Income			351
<u>(11)</u>	Balance in year	Note 14	Surplus	44
—	Balance from previous year		Deficit	(11)
<u>(11)</u>	Balance to date ..		Surplus	<u>33</u>
<u>(12)</u>	(A) and (B) Balance to date ..	Statement 8	Surplus	<u>27</u>

FORESTRY COMMISSION

HARVESTING TRADING ACCOUNT FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>	<i>£000</i>
	INCOME			
25,069	Sale of produce		25,647	
200	Value of produce used in Commis- sion's forests		217	
25,269				25,864
	EXPENDITURE			
7,384	Marking, measuring, harvesting, ex- traction and conversion		8,704	
1,575	Carriage and other expenses		1,977	
8,959			10,681	
636	Deduct increase in stock and work in progress		751	
8,323				9,930
16,946	NET HARVESTING REVENUE			15,934
3,355	Deduct Labour oncost Statement 10		4,023	
5,153	Overhead expenses Statement 11		5,706	
729	Interest Note 5		898	
9,237				10,627
7,709	BALANCE		Surplus	5,307
	Deduct Transfer charge from Planta- tions Account for thinnings and fellings removed .. Statement 1 (at 1978-79 Standard value).. and Note 15			9,533
8,497				
(788)	BALANCE		Deficit	(4,226)
—	Balance from previous year		Deficit	(788)
(788)	Balance to date Statement 8		Deficit	(5,014)

FORESTRY COMMISSION
SURPLUS ESTATE TRADING ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>	<i>£000</i>
	Operational Account			
143	Direct expenditure	..	157	
17	Labour oncost	.. Statement 10	13	
171	Overhead expenses	.. Statement 11	196	
8	Interest .. ..	.. Note 5	14	
<u>339</u>				380
—	Less increase in stock			<u>14</u>
339				366
<u>161</u>	Income ..			<u>197</u>
(178)	Balance		Deficit	(169)
513	Interest on capital employed ..	Note 5		<u>606</u>
(691)	Balance in year after interest ..		Deficit	(775)
	Capital Adjustments			
1,026	Surplus on revaluation of land and buildings	Note 7	4,018	
(77)	Deficit on sale of properties	Statement 9	(76)	
<u>949</u>				<u>3,942</u>
258	Balance in year	Note 16	Surplus	<u>3,167</u>
—	Balance from previous year		Surplus	<u>258</u>
258	Balance to date ..	.. Statement 8	Surplus	<u>3,425</u>

FORESTRY COMMISSION
AGENCY SERVICES TRADING ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>		<i>£000</i>
845	Direct expenditure	..		886
352	Labour oncost ..	..	Statement 10	365
272	Overhead expenses ..	..	Statement 11	253
53	Interest .. ..	..	Note 5	50
<hr/> 1,522				<hr/> 1,554
1,448	Income			1,598
<hr/> (74)	Balance	Note 17	Surplus	44
—	Balance from previous year		Deficit	(74)
<hr/> (74)	Balance to date	..	Statement 8	Deficit
				<hr/> (30)

Statement 7

MISCELLANEOUS TRADING ACCOUNT FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>		<i>£000</i>
	Joint Management Scheme	Note 18		
54	Income			166
—	Balance from previous year ..			54
<hr/> 54	Balance to date	..	Statement 8	Surplus
				<hr/> 220

FORESTRY COMMISSION

TRADING ACCOUNTS SUMMARY FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>				<i>See Statements</i>		<i>£000</i>
(12)	Commercial Recreation .. .. .	..	..	3	Surplus	27
(788)	Harvesting .. .. .	..	..	4	Deficit	(5,014)
258	Surplus Estate .. .. .	..	..	5	Surplus	3,425
(74)	Agency Services .. .. .	..	..	6	Deficit	(30)
54	Miscellaneous .. .. .	..	..	7	Surplus	220
<hr/>						
	Balance at 31 March 1979 on Trading Accounts being accumulated to end of quinquennium					
(562)	(1982) .. .. .	..	..	..	Deficit	(1,372)
<hr/>						

FORESTRY COMMISSION
SALE OF LAND AND BUILDINGS ACCOUNT
FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>See Notes/ Statements</i>	<i>£000</i>	<i>£000</i>
<u>1,461</u>	Sale price			1,250
1,119	<i>Deduct</i> Current valuation ..		830	
166	Disposal expenses ..		187	
1	Labour oncost ..	.. Statement 10	1	
237	Overhead expenses ..	.. Statement 11	229	
<u>10</u>	Interest .. .. .	.. Note 5	16	
<u>1,533</u>				<u>1,263</u>
(72)	Balance in year		Deficit	<u>(13)</u>

<i>Analysed to</i>		<i>£000</i>	<i>Transferred to</i>
(77)	Surplus Estate	Deficit (76)	Surplus Estate Trading Account (Statement 5)
5	Forest Estate	Surplus 63	Plantations Account (Statement 1)

FORESTRY COMMISSION
STATEMENT OF LABOUR ONCOST
FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>£000</i>
3,563	National insurance, holidays and sick pay	3,568
1,109	Wet time	1,273
2,490	Transport of workers and travelling and subsistence	3,077
259	Training	335
180	Miscellaneous	523
2,466	Provision for pensions and gratuities	3,236
<hr/> 10,067		<hr/> 12,012
52	Less Miscellaneous income	57
<hr/> 10,015		<hr/> 11,955
<hr/>		
	Distribution	<i>See Statements</i>
5,634	Plantations	1 6,770
3,355	Harvesting	4 4,023
<hr/> 8,989		<hr/> 10,793
551	Sub-Total (Standard £9,378,000)	664
70	Forest Recreation and Amenity	2
	Commercial Recreation: Campsites, and forest cabins	3 80
30	Shooting and Fishing	3 35
17	Surplus Estate	5 13
352	Agency	6 365
1	Sale of Land and Buildings	9 1
5	Debtors	4
<hr/> 10,015		<hr/> 11,955

FORESTRY COMMISSION
STATEMENT OF OVERHEAD AND FOREST ESTATE EXPENSES
FOR THE YEAR ENDED 31 MARCH 1979

<i>Previous Year £000</i>		<i>£000</i>
9,645	Salaries and National insurance	10,439
1,403	Travelling, subsistence and staff transfer expenses	1,666
1,390	Office expenses	1,560
297	Losses, compensation and bad debts	176
144	Legal expenses	175
400	Depreciation on equipment	451
227	Protective clothing	220
888	Miscellaneous expenses	1,113
1,814	Provision for pensions and gratuities	1,982
1,567	Accommodation and estate expenses (Note 20) ..	1,772
<hr/> 17,775		<hr/> 19,554
128	Less Miscellaneous Income	268
<hr/> 17,647		<hr/> 19,286
	Distribution	<i>See Statements</i>
7,297	Plantations	1 8,005
1,544	Forest Recreation and Amenity	2 1,538
181	Commercial Recreation: Campsites, and forest cabins	3 176
205	Shooting and Fishing	3 186
5,153	Harvesting	4 5,706
171	Surplus Estate	5 196
272	Agency	6 253
237	Sale of Land and Buildings	9 229
4	Debtors	3
<hr/> 15,064	Total Forestry Enterprise	<hr/> 16,292
2,583	Forestry Authority	2,994
<hr/> 17,647		<hr/> 19,286
18,865	Standard	20,672

FORESTRY COMMISSION
FORESTRY ENTERPRISE
NOTES ON THE ACCOUNTS

1. ACCOUNTING POLICIES

(a) Target rate of Return

The Commission has been set a target rate of return of 3 per cent in real terms on assets employed, which were revalued at 1 April 1977.

Plantations, the main asset, were revalued on the basis of the sum of net incomes expected in the future discounted at the target rate. Subsidies were introduced into the account to record:

- (i) The Forestry subsidy, being the difference between the target of 3 per cent and the rate (currently 5 per cent) set for public sector trading bodies. Details are given in Note 4 to the Accounts.
- (ii) The extent to which new planting and restocking undertaken principally for social reasons cannot earn 3 per cent. Details are given in Note 3.
- (iii) The net cost of the provision of recreation, amenity and nature conservation for which commercial objectives cannot be set. Details are given in Statement 2 and Note 3 ii. and iv.

(b) Measurement of Performance

Performance against the target rate of return can only be effectively measured after complete revaluation of the plantations and other assets which is undertaken every five years, the results being reported in special notes to the accounts together with a review of the level of subsidies for the next quinquennium. To monitor progress during the years between valuations an annual comparison is made of the actual costs incurred and income realised from sales with the standards assumed in the revaluation and suitably adjusted for inflation. The variances between these standards and actual results are accumulated in the Balance Sheet and explained in the notes on the accounts.

(c) Inflation Accounting

The general concepts of current cost accounting as recently promulgated in Exposure Draft 24 issued by the Accounting Standards Committee (ASC) have been adopted by the Commission in preparation of these accounts. Asset values are adjusted annually, generally by indices, with the total of the surpluses or deficits from revaluation being shown in the Capital Maintenance Reserve. Charges to activities for use of these assets are based on the adjusted values. Standards set for measurement of performance in the Plantations and Harvesting accounts are also similarly adjusted to reflect the changing value of the pound. Supplementary statements as required by ED24 are unnecessary because the accounts themselves reflect current value. A financial gearing adjustment is not made because it is inappropriate for a grant-aided body and neither is there any adjustment in the accounts to reflect the impact of price changes in the funds tied up in monetary working capital because the effect on the Commission is considered to be minimal.

(d) Prior year amounts are provided for comparison but without adjustments for the changing value of the pound.

(e) The accounting policies adopted for other items are explained under appropriate headings in the notes below.

2. ADJUSTMENTS TO 1977-78 ACCOUNTS

The values of the land actually under plantations and in the reserve awaiting planting (as part of Fixed Assets) differed not only at the beginning of the quinquennium because of quality and mix but have also further diverged because land under plantations is adjusted by the change in the GDP-based index whereas land in the reserve is revalued by an internal index based on actual acquisition prices.

When land is planted a transfer is made from the Fixed Asset account to the Plantations account and in the 1977-78 accounts the difference in values was reflected in the Capital Maintenance Reserve. It is now considered more informative to reveal this difference as part of the Plantations Variance and thus indicate the reduced or excess cost over standard of the land planted in the year.

An adjustment of £202,000 has been made between the opening balances at 1 April 1978 on the Capital Maintenance Reserve and Plantations Variance accounts to reflect the reduced cost against standard of land used for new planting in 1977-78. In 1978-79 the value of land newly planted exceeded the standard and this adverse variance is explained in Note 13 below.

Notes on the Accounts (*continued*)

3. ADDITION TO CAPITAL DURING THE YEAR

(i) <i>Previous Year £000</i>		<i>£000</i>	<i>£000</i>
24,700	Grant-in-Aid of the Forestry Fund for 1978-79		29,310
5,531	less Appropriated for the Forestry Authority		6,968
<u>19,169</u>	Grant-in-Aid of the Forestry Enterprise		<u>22,342</u>
3,766	Deduct Planting subsidy (Notes (ii) and (iii) below) ..	3,557	
1,497	Restocking subsidy (Notes (ii) and (iii) below) ..	1,703	
3,239	Forest Recreation and Amenity subsidy (Statement 2		
82	and note (iv) below)	3,426	
	Notional sick and injury benefit	99	
62	Decrease in liability for properties acquired without		
	payment	—	
<u>8,646</u>			<u>8,785</u>
10,523	Balance of Grant-in-Aid to be added to capital		13,557
7,322	add Notional interest on capital (Note 5 below)		8,189
<u>17,845</u>	Addition to Capital		<u>21,746</u>

(ii) Details of subsidies (*see p. 98*)

(iii) The planting and restocking subsidies per hectare for each Conservancy are derived from the weighted average of the net discounted revenues at 3 per cent of the various soil type models representing the reserve of the plantable land at 1 April 1977. The total subsidies for each Conservancy are calculated by multiplying the total area planted and restocked in the year by the average subsidy per hectare converted into current pounds by application of the index based on the GDP implicit price deflator.

(iv) Forest Recreation and Amenity covers visitor centres, car parks, forest walks, nature trails, conservation of wildlife etc. and small scale amenity planting from which no commercial rate of return can be expected, together with motor sports and other specialist activities. Expenditure on these facilities less related income is met by a subsidy which amounts to £3,426,000 in 1978-79 (compared to £3,239,000 in 1977-78). The level of subsidy for both years is less than the amount foreshadowed annually for the current quinquennium in the 1976-77 Annual Report of £3 million in real terms.

4. FORESTRY SUBSIDY

This subsidy measures the extent to which the target rate of return set of 3 per cent in real terms for forestry falls short of the required rate of return (currently 5 per cent) set for public sector trading bodies calculated as follows:—

<i>Previous Year £000</i>		<i>£000</i>
26,431	Interest at 5 per cent in real terms being the required rate of return (RRR) set for public sector trading bodies calculated on the average value of assets employed at the beginning and end of the year	30,990
16,104	Interest charge in real terms made in the accounts (see Note 5 below) based on the average value of assets employed at the beginning and end of the year	18,889
<u>10,327</u>	Difference being Forestry Subsidy ..	<u>12,101</u>

5. INTEREST CHARGE

The target rate of return set for forestry is 3 per cent in real terms except for investments in Surplus Estate and Commercial Recreation where the required rate is that set for public sector trading bodies, currently 5 per cent. In addition an internal standard is used in investment appraisal and setting charges for camp sites and cabin projects based on yielding a surplus of 7½ per cent on the current value of capital employed. This particular standard is recorded separately in the Commercial Recreation accounts for comparison with the surplus earned prior to interest charges at the required rate of return.

(ii) Details of subsidies (see p. 97)

	Planting			Restocking			Forest Recreation and Amenity
	Area Planted (hectares)	Subsidy per hectare	Subsidy £78/79(000)	Area Planted (hectares)	Subsidy per hectare	Subsidy £78/79(000)	
Great Britain	11,842	£ 300	3,557	3,567	£ 477	1,703	£000 3,426
ENGLAND							
Total	686	371	254	1,424	815	1,160	1,683
Conservancy:							
North West	215	565	121	358	838	300	193
North East	415	245	102	250	495	124	243
East	33	418	14	339	538	182	296
South East	2	1,133	2	133	1,347	179	645
South West	21	728	15	344	1,089	375	306
SCOTLAND							
Total	10,584	271	2,867	1,259	(67)	(85)	1,130
Conservancy:							
North	2,937	482	1,416	455	61	28	259
East	974	249	242	133	(52)	(7)	269
South	3,092	142	439	375	(204)	(77)	275
West	3,581	215	770	296	(98)	(29)	327
WALES							
Total	572	762	436	884	710	628	613
Conservancy:							
North	96	559	54	170	809	138	339
South	476	803	382	714	686	490	274

Further analysis of Great Britain Forest Recreation and Amenity Subsidy is shown on Statement 2.

Notes on the Accounts (*continued*)

The target rates of return are reflected in the accounts by interest charges which are based on the average value of assets employed at the beginning and end of the year. These interest charges are calculated as follows:—

	<i>£000</i>
5 per cent on Surplus Estate assets	606
5 per cent on Commercial Recreation assets	130
3 per cent on all other assets	18,153
	<hr/> 18,889

The total interest of £18,889,000 has been distributed within the accounts as follows:—

	<i>See Notes/Statements</i>	<i>£000</i>
Addition to Capital . . . . .	.. .. Note 3	8,189
Superannuation Fund . . . . .	.. .. Note 8	10,700
		<hr/> 18,889

	<i>£000</i>
Plantations	16,955
Forest Recreation and Amenity	181
Commercial Recreation: Camp Sites and forest cabins	151*
Shooting and Fishing	18
Harvesting	898
Surplus Estate	620*
Agency	50
Sale of Land and Buildings	16
	<hr/> 18,889

*Includes interest on the use of other assets (eg VME and administration buildings) which were not specifically acquired for the activities concerned. Such interest charges are identified separately under operational expenditure in the accounts.

6. THE CAPITAL AT 31 MARCH 1979 INCLUDES

- (a) A contingent liability to the Crown Estate Commissioners of £1,371,000 (No change from previous year).
- (b) Gifts to the value of £153,000 (compared with £152,000 reported in the 1977–78 accounts). The difference arises from a prior year adjustment relating to items donated for the Headquarters building in Edinburgh.

7. CAPITAL MAINTENANCE RESERVE (previously Revaluation Reserve)

	<i>£000</i>	<i>£000</i>
Balance at 1 April 1978		57,742
Increases arising from revaluation of assets at 31 March 1979		
Standard value of plantations	43,442	
Land and buildings in Forest Estate	26,085	
Vehicles, machinery and equipment	1,553	
Furniture and equipment	99	
Stocks and work in progress	82	
	<hr/>	71,261
Adjustments arising from reclassification of assets at 31 March 1979		81
		<hr/> 129,084

The Capital Maintenance Reserve consists mainly of the surpluses (or deficits) arising from the annual revaluation of assets within the quinquennium except that the adjustment arising from the revaluation of surplus properties is credited (or debited) to the Surplus Estate Trading Account (Statement 5).

The standard value of plantations, including the land, is reassessed annually by application of an index based on the GDP implicit price deflator; this index records a rise of 9 per cent in the year and 22 per cent since the beginning of the quinquennium. Other assets are revalued as described in notes 9 and 10 below.

Reclassification of properties between groups of assets (other than new planting which is dealt with in Note 9 below) occasionally takes place within the quinquennium and this may result in a change of value. Such adjustments are reflected by an entry in the Capital Maintenance Reserve.

Notes on the Accounts (*continued*)

8. NOTIONAL SUPERANNUATION FUND

Previous

<i>Year</i>		<i>£000</i>	<i>£000</i>
<i>71,400</i>	Balance at 1 April 1978		81,684
<i>8,782</i>	Interest at 13.1 per cent on opening balance		10,700
	Provision made during year (including £386,000 charged to Forestry Authority)		5,604
<i>4,607</i>	Contributions received during the year		785
<i>947</i>			
<i>85,736</i>			98,773
<i>4,052</i>	Less Payments made during the year		4,814
<i>81,684</i>	Balance at 31 March 1979 ..		93,959

The Notional Superannuation Fund was revalued by the Government Actuary at 1 April 1977 to £71,400,000. The balance of the Fund represents the Commission's liability for payment of pension rights to existing and retired staff. It is not specifically invested but is, in effect, a first charge on the assets employed by the Commission. Included in the payments are annuities totalling £47,000 paid to the National Debt Office in respect of commuted compensation allowances totalling £317,000 which were paid to forester grades who retired prematurely.

9. FIXED ASSETS

Freehold and Leasehold Land and Buildings

	<i>Forest Estate £000</i>	<i>Surplus Estate £000</i>	<i>Total £000</i>
At 1 April 1978	64,195	10,374	74,569
Additions	3,063	139	3,202
Disposals at book value	3,862	663	4,525
Depreciation charge for year	1,321	—	1,321
Revaluation adjustment	26,085	4,018	30,103
At 31 March 1979	88,160	13,868	102,028

Plant and Equipment

	<i>Vehicles, Machines and Equipment £000</i>	<i>Furniture and Equipment £000</i>	<i>Total £000</i>
Gross current replacement cost			
At 1 April 1978	31,920	1,472	33,392
Additions during year at cost	4,953	76	5,029
Disposals and transfers at book value	3,278	9	3,287
Revaluation adjustment	3,704	175	3,879
At 31 March 1979 ..	37,299	1,714	39,013
Depreciation			
At 1 April 1978	19,376	643	20,019
Provision for year	3,980	140	4,120
Eliminated on disposals and transfers	3,038	4	3,042
Backlog depreciation on revaluation	2,151	76	2,227
At 31 March 1979 ..	22,469	855	23,324
Net current replacement cost			
At 31 March 1979	14,830	859	15,689
At 1 April 1978	12,544	829	13,373
Total Fixed Assets			
At 31 March 1979 ..	—	—	117,717
At 1 April 1978 ..	—	—	87,942

Notes on the Accounts (*continued*)

Land and Buildings

- (i) Land under plantations is treated as part of the overall Plantations asset (Statement 1) and is accordingly revalued annually by reference to the index based on the GDP implicit price deflator.
- (ii) Other freehold and leasehold land and all buildings were valued by professionally qualified staff at 1 April 1977 generally on the basis of open market values with acquisition costs added for forest estate properties and disposal expenses deducted from surplus properties. Specialist buildings were, however, valued at net replacement cost. Forest recreation and amenity facilities are included at a nominal value of £1 per item.
- (iii) A further professional valuation of these assets will be carried out at the end of the quinquennium in March 1982. In the interim period the end of year valuations have been assessed as follows:—
 - Land – for land awaiting planting by use of an internal index based on the current cost of acquisition (indicating an 86 per cent rise over the year) and for other land by application of indices published by the Inland Revenue relating to sales of agricultural and forestry land (indicating an increase of 67 per cent in the valuations).
 - Buildings – by application of an index relating to the cost of new construction as published by the Central Statistical Office. This index indicates a rise of 13 per cent in the year and a suitable adjustment was made thereto in respect of Surplus buildings which are not depreciated.
- (iv) Freehold and leasehold buildings classified as Forest Estate are depreciated by equal annual instalments over their estimated economic life, or in the case of leasehold buildings, over the remaining period of the lease, whichever is the shorter. Buildings classified as surplus are not depreciated.
- (v) Disposals and transfers include land afforested in the year with a corresponding entry in the Plantations account. Differences between the updated value of the land used for planting and the standard value of land under plantations (see (i) above) are reflected in the Plantations Variance account.
- (vi) Properties are occasionally reclassified between Forest Estate and Surplus Estate during the quinquennium and an appropriate adjustment is made to the opening balances at the start of each year.

Plant, Machinery and Equipment

- (i) These assets have been valued at gross current replacement cost calculated principally by reference to asset type indices issued by the Central Statistical Office (showing increases ranging from 10 per cent to 13 per cent) less aggregate depreciation on the basis stated below to reflect the expired proportion of the assets working lives.
- (ii) Plant, machinery and equipment are depreciated by equal annual instalments over their estimated working lives.

10. STOCKS AND WORK IN PROGRESS

<i>Previous Year £000</i>		<i>£000</i>
4,084	Timber	4,832
640	Plants and seed	829
127	Livestock	157
1,596	Consumable materials and supplies ..	1,721
<u>6,447</u>		<u>7,539</u>

The bases for valuation are as follows:—

Timber, plants and seed – at net realisable value.

Livestock – at the lower of historic cost and net realisable value.

Consumable materials and supplies – at current replacement cost assessed either by last paid price or by application of a CSO index thereto.

Notes on the Accounts (*continued*)

11. CASH AT BANKS AND IN HAND

*Previous
Year
£000*

		<i>£000</i>
270	Balance of Forestry Fund with Paymaster General	1,693
310	Balance in banks	105
329	Cash in transit and in hand	192
<u>909</u>		<u>1,990</u>

The balance of funds with the Paymaster General is higher than normal because computer industrial action delayed the payment of bills.

12. CREDITORS

The level of creditors at 31 March 1979 is £5,689,000 more than the previous year primarily because industrial action at the Scottish Office Computer Centre restricted the settlement of claims received after mid-February.

13. VARIANCE ON PLANTATIONS ACCOUNT

The increase in the valuation of plantations during the year (at 1978-79 standard costs and prices) is £31,986,000 while actual net expenditure and transfer values amounted to £34,165,000, an adverse variance of £2,179,000 which arose as follows:—

	<i>Standard at 1978-79 costs and prices £000</i>	<i>Actual £000</i>	<i>Variances £000</i>
Plantations acquired	45	43	2
Land planted	2,486	3,811	(1,325)
Formation	2,982	3,071	(89)
Protection	2,647	2,697	(50)
Crop improvement	2,004	1,996	8
Lease rents, supplies and miscellaneous	534	485	49
Road construction	2,203	2,587	(384)
Road maintenance	1,456	1,413	43
	<u>14,357</u>	<u>16,103</u>	<u>(1,746)</u>
Sundry income ..	404	479	75
	<u>13,953</u>	<u>15,624</u>	<u>(1,671)</u>
Net operational expenditure	13,953	15,624	(1,671)
Labour oncost	5,305	6,770	(1,465)
Overhead expenses	8,624	8,005	619
Research and Development	2,164	1,826	338
	<u>30,046</u>	<u>32,225</u>	<u>(2,179)</u>

The contributory reasons for the variances are detailed below.

- The excess cost of £1,325,000 on Land planted represents the difference between the current value and the standard allowed for in the plantation valuation. The divergence between the two valuations is particularly marked this year when acquisition costs rose by 86 per cent against an increase in the standard valuation of plantations, based on the GDP of only 9 per cent. The reverse situation applied in 1977-78 though to a much smaller extent (see Note 2).
- The excess cost of £89,000 on Formation is principally made up of additional expenditure on preparation of the ground following timing changes in programmes and working on more difficult terrain offset by a reduction in expenditure on weeding.
- The additional cost of £50,000 on Protection is mainly due to an increased programme, with associated higher unit costs, for deer fencing in the north of Scotland offset to some extent by a general saving in fire protection expenditure due to favourable weather conditions.
- Reduced aerial fertilising, with a shortfall in the drainage programme due to bad weather, was offset by an increase in cleaning to catch up on arrears; this resulted in a minor saving of £8,000 on Crop improvement.
- The saving of £49,000 on Lease rents, supplies and miscellaneous is principally due to lower legal costs on the purchase of land than envisaged in the standard.

- (f) The excess cost of £384,000 on Road construction is principally due to programme increases particularly on upgrading, to meet the higher specifications required by the trend to larger and heavier vehicles and safety requirements.
- (g) The reduction of £43,000 in Road maintenance expenditure is due to timing changes in programmes in part related to the need to transfer resources to road construction.
- (h) The £75,000 excess of income over standard is due to larger deer culls and higher prices paid for venison than visualised when the standard was set.
- (i) The excess cost of £1,465,000 on Labour oncost is principally due to arrears of pay following backdated awards and to increases above the standard both on the provision made for superannuation benefits to industrial staff and in transport costs (see also Note 23).
- (j) The reduction of £619,000 in Overhead expenses is mainly due to the fact that the standard allows for a 22 per cent rise in inflation since the beginning of the quinquennium whilst salaries and associated costs, which form the bulk of the Overhead expenses, rose by a smaller margin.
- (k) Research and Development charges to the Enterprise were £338,000 less than anticipated partly due to savings in staff costs together with a programme reduction in work study and in the completion and payment for new publications.

14. COMMERCIAL RECREATION TRADING ACCOUNT

The Commercial recreation account covers both the provision of tourist accommodation in the form of camping and caravan sites, forest cabins etc, for overnight visitors and the letting of shooting and fishing rights belonging to the Commission.

Campsites and cabins show a surplus of £125,000 before interest on capital employed. This surplus is equivalent to a return of 4.8 per cent compared to the target rate of 5 per cent for public sector trading bodies and 7½ per cent set as the internal standard. The principal reason for the shortfall is higher costs than expected in the first year of the Keldy cabin scheme. The cumulative shortfall in the quinquennium against the internal standard is now £122,000 but only £6,000 against the interest rate charged in the accounts. The profitability of the well-established sites is equal to or above the internal standard and it is hoped that the newer projects will come up to standard before the end of the quinquennium. Earlier shortfalls against standard are however unlikely to be recouped. Some facilities have been provided to combat the problems of 'wild' camping and will never attain a commercial return.

No separate standard has been set for shooting and fishing. There is a surplus of £44,000 on the accounts in the year, after charging interest for the use of vehicles and forest estate buildings, and a cumulative surplus of £33,000 since the beginning of the quinquennium.

15. HARVESTING TRADING ACCOUNT

There was a deficit of £4,226,000 in the year on the Harvesting Trading Account after charging £9,533,000 for the value of fellings and thinnings consumed at current standard values. A nil balance would have indicated for the trees harvested no deviation from the 3 per cent target. This deficit arose as follows:—

	<i>Standard at 1978-79 costs and prices £000</i>	<i>Actual £000</i>	<i>Variance £000</i>
Income (after adjustment for increase in stock of £409,000)	31,958	26,273	(5,685)
Expenditure (after adjustment for increase in work in progress of £342,000)	11,381	10,339	1,042
Net Harvesting Revenue ..	20,577	15,934	(4,643)
Oncost (see Note 23) ..	4,073	4,023	50
Surplus	16,504	11,911	(4,593)
Overheads and Interest ..	6,971	6,604	367
Balance	9,533	5,307	(4,226)

The standards are based on unit costs per cubic metre so that the comparison with actual performance remains unaffected by changes in the volume of wood handled.

The 1978-79 standards allow for a 9 per cent increase in income and expenditure based on the GDP index. Costs have been held within the revalued standards. However income per cubic metre has remained at the level obtained in 1977-78 (which was already below standard) due to difficulties in the particle board, pulp and paper board markets. These difficulties correspond to market pressures on prices for small roundwood experienced throughout Europe over the last two years.

It is not considered likely that the significant improvement needed to raise actual income to the standard will be attainable in the remaining years of this quinquennium.

Notes on the Accounts (*continued*)

16. SURPLUS ESTATE TRADING ACCOUNT

Surplus Estate comprises those properties which are not required for the operation of the Forestry Enterprise and are intended to be sold at the earliest opportunity. The account shows an operational deficit on letting the properties of £775,000 after charging interest on capital employed at 5 per cent. In addition a deficit arose on sales in the year (see Statement 9 for details). This has, however, been more than offset by the substantial write-up of the asset values arising from the annual revaluation, by indices, resulting in a surplus on the account of £3,167,000. The accumulated surplus since the beginning of the quinquennium is now £3,425,000.

17. AGENCY SERVICES TRADING ACCOUNT

Agency services covers the provision of staff and machinery to carry out motorway and trunk road planting on behalf of the Department of the Environment, forestry operations for private estates generally where there is no contractual service available and the occasional loan of labour to adjoining landowners.

The account should be in balance with income equalling expenditure. There was however a surplus of £44,000 in the year which has reduced the cumulative deficit in the quinquennium to £30,000.

18. MISCELLANEOUS TRADING ACCOUNT

The income in this account comprises a receipt from the Severn Trent Water Authority representing an equal share in the surplus on the joint management afforestation scheme at Lake Vyrnwy in North Wales.

19. LABOUR ONCOST

Labour oncost covers those expenses incurred on the employment of industrial labour which cannot be allocated directly to activities eg employers national insurance, wet time, provisions for superannuation rights. Most of the expenditure varies in relation to the number of men employed and the total cost is distributed annually to activities on a time basis.

Standards are only set for the Plantations and Harvesting accounts and the respective variances are set out in Notes 13 and 15. The variances are principally related to arrears of pay and to increases above the standard both in the provision made for superannuation benefits to industrial staff and in transport costs (see also Note 23).

20. OVERHEADS AND FOREST ESTATE EXPENSES

The actual cost of overheads and estate expenses amounted to £19,286,000 compared to a standard of £20,672,000 giving a favourable variance of £1,386,000. The standard, initially set in 1976-77, has been updated by 22 per cent to take account of the subsequent movement in the GDP implicit price deflator whereas the rise in salaries and associated costs, which account for much of the overhead expenditure, was at a lower level.

Accommodation and estate expenses detailed in Statement 11 comprise the net cost of properties (other than Commercial Recreation) required for the purposes of the Forestry Enterprise. The properties include houses let to Forest Workers, Foresters and outside parties, administration buildings and agricultural subjects temporarily let pending planting. The total net direct cost in the year amounts to £1,772,000 and is analysed as follows:—

	<i>Expenditure</i> £000	<i>Income</i> £000	<i>Net</i> £000
Forest workers' houses and holdings	923	248	(675)
Foresters houses	357	158	(199)
Administration buildings	1,423	178	(1,245)
Agricultural properties and other residential accommodation	567	914	347
	<u>3,270</u>	<u>1,498</u>	<u>(1,772)</u>

21. FUTURE CAPITAL EXPENDITURE

Future capital expenditure on Fixed Assets in 1979-80 authorised by the Commission amounts to £11,080,000 (£9,996,000 for 1978-79).

22. CONTINGENT LIABILITIES

Contingent liabilities exist at 31 March 1979 for damages caused by the Commission to other persons' property and for compensation for personal injury to Commission employees amounting in all to an estimated sum of £66,000 (£74,000 at 31 March 1978).

23. SPECIAL NOTE

Examination of the variances on the Plantations and Harvesting Trading Accounts this year has revealed inaccuracies in the attribution of the standards set for labour oncost at the 1977 revaluation, as between these accounts. This will have no net effect on the activity variances used in the measurement of performance to be reported at the end of the quinquennium but could alter the opening (1977) and subsequent valuation of the plantations and planting subsidy levels as a result of the discounting effect on the future cash flows. The precise effect on the Annual Accounts as a whole could only be quantified and corrected by a complex and costly exercise necessitating a revision of the accounts and valuations from 1 April 1977. It is however considered that the overall effect on the valuation and subsidies is unlikely to be sufficiently significant to justify the costs and resources involved in its correction at this time, especially bearing in mind that a full revaluation taking these points into account will be made at 1 April 1982.

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