

FORESTRY COMMISSION

# Forestry Commission

57th Annual Report  
and Accounts  
1976-77

Forestry Commission  
**ARCHIVE**



*Cover picture:*

Logs being extracted to roadside by a tractor skidder in Glenurquhart Forest.

Fifty-Seventh Annual  
Report and Accounts of the  
Forestry Commission  
for the year ended  
31st March 1977

together with the

Comptroller and  
Auditor General's Report on the Accounts

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

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FORESTRY COMMISSION

231, Corstorphine Road  
Edinburgh, EH12 7AT

23 November 1977

To:

The Rt Hon JOHN SILKIN MP,  
*Minister of Agriculture, Fisheries and Food*

The Rt Hon BRUCE MILLAN MP,  
*Secretary of State for Scotland*

The Rt Hon JOHN MORRIS QC, MP,  
*Secretary of State for Wales*

Gentlemen

In pursuance of Section 45 of the Forestry Act 1967, I have the honour to transmit the 57th Annual Report of the Forestry Commissioners which covers the year ended 31st March 1977.

I should explain that the presentation of the Report was delayed in order that the Commissioners could complete and report upon the first quinquennial revaluation following the reconstruction of their Accounts in 1972.

I am, Gentlemen,  
Your obedient Servant,  
(Sgd) JOHN MACKIE  
*Chairman*

# The Forestry Commissioners and Senior Staff at 31st March 1977

## Forestry Commissioners

Mr J. Mackie, *Chairman*

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

Captain D. S. Bowser JP

Mr A. M. Donnet CBE, JP

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

Mr J. M. Hunter MC

Mr C. G. A. Latham FCA

Mr D. A. Mithen

Mr G. G. Stewart 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 (Land Use Planning): Mr E. G. Richards MC

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 B. W. Holtam

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

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

### *Scotland*

North: Mr R. A. Innes

East: Mr A. Morrison

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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***Acknowledgments***

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# General Review

## The Commission's Finances

### *First Quinquennial Revaluation*

1 As explained in our Annual Report for 1972–73, the accounts of the Forestry Enterprise were reconstructed in 1972 in order to measure its subsequent performance in relation to the target rate of return set at 3% in real terms. The new valuation of the plantations was determined by reference to an estimate of future net revenue discounted at a rate of 3%, resulting in a substantial reduction in the figure taken as the value of capital employed at that time. The plantations and fixed assets were to be revalued at five-yearly intervals and an assessment made of performance in the preceding quinquennium. The first quinquennium having ended on 31 March 1977, a revaluation as at 1 April 1977 has been completed.

2 The main conclusions to be drawn from the revaluation are:

- (a) The net value of the Enterprise assets for incorporation into the 1977–78 accounts is £498·4 million, as detailed in special Note 1 to the Accounts.
- (b) During the quinquennium 1972–77 the surplus achieved in real terms on trading activities amounted to £22·0 million over the standards set. This was chiefly due to the exceptional level of timber prices obtained as a result of world market conditions, particularly in 1973 and 1974. This surplus is, however, reduced by £2·1 million because of higher prices paid for land than standard. Management decisions taken during the quinquennium will affect quantities of work and output after March 1977, and have further enhanced the asset value by £2·4 million. The total surplus is thus £22·3 million. Expressed as a return over the whole rotation, and after taking account of subsidies, this represents an overall return of 3·1%.
- (c) It will be appropriate to retain the target rate of 3%. On this basis subsidies per hectare required for the new planting and restocking planned during the quinquennium 1977–82 will result in a total subsidy which, in real terms, will be lower than in the first quinquennium.
- (d) It will be appropriate to maintain the forest recreation and amenity subsidy at the present level in real terms.

Detailed commentary on the revaluation and its implications appears in the Forestry Enterprise section of this Report at paragraphs 124–131 and in the special section Notes to the Accounts on pages 94–98. In carrying out the revaluation we have sought to incorporate the concepts of current cost accounting.

### *Grant-in-Aid*

3 Payments at £55.9 million show an increase of £4.9 million (10%) over 1975–76, mainly due to the continuing impact of inflation. Receipts increased by some £5.7 million (24%) from £23.9 million in 1975–76 to £29.6 million, the main factor being improved wood prices and an increase in the volume marketed. After adjustment for changes in the working balance the call on public funds of £27.0 million was only marginally increased (£0.1 million) from the 1975–76 level of £26.9 million. The statement of Forestry Fund receipts and payments together with notes and explanations appears at Table 1 of Appendix VII.

## **Review of Forestry Taxation and Grants**

### *Decline in Private Planting*

4 Our Report for 1975–76 mentioned the sharp decline in planting by private woodland owners and that, besides the general economic situation, the reasons included the incidence of capital transfer tax and the fact that grants under the Basis II Dedication Scheme had not been increased since 1967. Concern for the future of the private sector of the industry continued and during the discussions on the 1976 Finance Bill Ministers decided in the light of representations made to them that there should be a reassessment of the effect on private forestry of the Government's policies in other fields.

### *Establishment of Inter-Departmental Review Group*

5 On 13 July 1976 Mr Denzil Davies, Minister of State, Treasury, announced that the reassessment would be made through an Inter-Departmental Review which would look at the whole question of how forestry was affected by Government policies on taxation, grants and amenity. He said that the intention was to complete the Review in time for any tax measures, if necessary, to be implemented in the next Finance Bill. Shortly afterwards a Review Group was set up under Treasury chairmanship comprising representatives of the Forestry Commission and other Departments concerned\* and work began in September under the following terms of reference:

“To review in the light of changes since 1972 in capital taxation and in the grant arrangements through the dedication scheme the taxation and grant arrangements for private forestry taking account of economic, fiscal and environmental considerations; and to report by 31 December 1976.”

6 Representations were made by a large number of organisations and individuals, some of whom were invited to give oral evidence. The written and oral evidence received was generally well argued and constructive and, we understand, greatly facilitated the work of the Group. To meet the wishes of the main representative organisations of the industry, the taking of oral evidence was extended into December and this led to some delay in completing the Group's report.

### *New Grant-Aid and Taxation Measures*

7 An outline of the measures accepted by the Government following consideration of the report by Ministers was announced by Mr Denzil Davies on 30 March 1977, and this is reproduced as Appendix V to this Report.

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\* Treasury, Inland Revenue, Ministry of Agriculture, Fisheries and Food, Scottish Office, Welsh Office, Department of the Environment and Department of Agriculture, Northern Ireland.

8 On the following day during an Adjournment debate on forestry, Mr Gavin Strang, Parliamentary Secretary to the Ministry of Agriculture, Fisheries and Food, was able to enlarge on the new measures and how they should be seen as interpreting the Government's intentions. Speaking of forestry policy generally, he referred to the Ministerial statement of 5 July 1974, and said:

"Timber production to feed our wood-processing industries continues to be recognised as the ultimate goal for woodlands managed under the [Basis III Dedication] scheme, as under the previous dedication schemes; but in pursuing this important end objective woodland owners are called upon to temper their management practices so that private forestry develops in full harmony with agricultural and amenity requirements."

9 This re-emphasis of forestry's principal objective will clearly be of encouragement to the private sector of the industry. In our administration of the Basis III Dedication Scheme we have recognised the importance of environmental considerations and the needs of agriculture, but without losing sight of the primary objective that trees are planted under our grant-aid schemes with the object of producing timber.

10 The very significant increases in the levels of present types of grant-aid and the encouragement to sound management of plantations through the introduction of a new management grant under the Basis III Scheme are also welcome. A further important new measure is the introduction of a Small Woods Scheme which is effectively a replacement for the previous grant-aid scheme closed four years ago. The new arrangements will have broader aims, however, which are best expressed in the words of the Parliamentary Secretary:

"The Government share the concern expressed about the loss of small woods whose importance lies not only in their aesthetic, nature conservation and amenity value but also in the significant contribution they make towards the country's timber resources, a contribution capable of being enhanced through effective management. We have therefore decided to reintroduce a small woods planting scheme which will give particular emphasis to the planting of broadleaved trees in the lowlands. The rates of grant announced recognise that many small woods will be broadleaved, particularly in those areas of the country where broadleaves clearly predominate, as well as the need for a margin over the Basis III broadleaved grant to meet the higher costs, particularly of fencing, which arise in small-scale planting."

11 We shall be working closely with the Countryside Commission and the Countryside Commission for Scotland to ensure that their arrangements for grant-aiding amenity tree planting and our Small Woods Scheme together give a good base for the encouragement of these smaller plantings.

12 On taxation it was announced that the link between the relief available under Schedule 9 of the 1975 Finance Act and the Dedication Schemes would be severed. Although this was the only taxation change it is equally noteworthy that the special income tax rules applying to commercial woodlands are to remain undisturbed.

13 Taken as a whole, these measures can be regarded as well founded and timely, although they may not go as far as the private side of the industry felt desirable. We would close this part of our Report in the words with which the Parliamentary Secretary concluded his speech:

"It is our hope that these measures will restore confidence in the industry generally and provide a sound basis on which the forestry industry can operate for many years to come."

## **Consultation Procedures for Private Forestry**

14 This is a good year in which to review the working of the consultative arrangements for private forestry proposals. These arrangements, which were described in detail in our Report for 1974-75, were introduced in October 1974 with the start of the Basis III Dedication Scheme in order to ensure that agricultural and environmental interests are taken fully into account when proposals put forward under our grant-aid schemes are being considered.

15 In the 2½ years up to 31 March 1977, the Commission received some 1,000 applications under the Basis III Scheme. Consultations locally between our staff and other interests resolved any problems that arose except in three cases. These disputed applications were settled in the year under review after reference first to the Regional Advisory Committee for the Conservancy, which held special site meetings with the parties, and then to the Minister of Agriculture, Fisheries and Food, as the Forestry Minister concerned, for his advice in consultation with his environmental colleagues. Two of the cases were in Cumbria. Having regard to the views expressed by the Minister, we decided in the first case to admit an application to plant 31 hectares at a site known as Hudson's Allotment, and in the other, at Haresceugh Fell, we concluded that it would be environmentally unacceptable to permit afforestation of 247 hectares of Pennine upland with the aid of grants because of its special prominence in the landscape. The third case concerned an application to plant about 100 hectares out of 244 hectares at Berner's Heath in Norfolk, one of the last remaining areas of the old Breckland. We decided against this proposal on the grounds that afforestation would be incompatible with the recent designation of the area by the Nature Conservancy Council as a Site of Special Scientific Interest.

16 These particular cases have helped, indirectly, to improve the procedures in a number of ways. For example, in conveying our decision on a disputed application, we shall in future indicate what the views of the various parties were, how the Regional Advisory Committees saw the matter and how we weighed the views of the parties and of the Minister in coming to our decision. These early cases have also proved the worth of our Regional Advisory Committees who tendered balanced and carefully considered advice after full and open discussion on the site with the parties involved.

17 The consultative arrangements apply equally to felling licence applications. A fair proportion of these have involved extended discussion between our Conservators and local authorities and other interests, but so far it has not been found necessary to refer any disputed applications of this type to Forestry Ministers.

18 The new procedures are still developing, but on the evidence of their operation to date, we have good reason to be satisfied that they are resulting in fair and open discussion and in solutions satisfactory to all the parties. We should like to record our appreciation of the work of our Regional Advisory Committees and for the co-operation our Conservancy staff have received from local authorities and other bodies with whom they have established the consultative arrangements.

19 The effectiveness of the procedures is of special importance in areas of countryside sensitive to change, such as the National Parks. We were therefore pleased to note the following observations of the appropriate Secretaries of

State on the first Special Report from the Expenditure Committee on National Parks and the Countryside (H of C 256, 10 March 1977):

“In their conclusions on the Sandford Report [the Secretaries of State] indicated that they were satisfied with the arrangements for consultation associated with the new dedication scheme for private forestry and the Forestry Commissioners’ practice and intention to consult local planning authorities, including National Park Authorities (NPAs), on the Commission’s felling or planting proposals; and that the introduction of planning control over forestry was, therefore, unnecessary. While they are aware of the strength of feeling that afforestation should be brought under such control, they consider that the new consultative arrangements must be given a fair trial.”

### **Devolution**

20 Under the provisions of the Scotland and Wales Bill, it was proposed that forestry functions should be devolved, with the exception of fiscal, regulatory and international matters. It was the intention, however, that the Forestry Commission should be maintained as the instrument for carrying out Scottish and Welsh policies, for which it would be financed by and accountable to the Scottish and Welsh administrations, as well as continuing to be responsible to Parliament at Westminster for forestry in England and non-devolved matters. At the end of the year under report, the future of the Bill was in doubt.

### **State of the Wood Market**

21 The main feature of the year was the gradual improvement in demand for all categories of British wood. While this improvement was modest in the pulp-wood sector, there was a much stronger recovery in the sawmilling and particle board industries. The improved market conditions resulted in a substantial increase in the volume of timber harvested in the year; this was especially marked in sales of standing timber. The renewal of buying interest was accompanied by an increase in price for all categories of British timber and, as a general indication of this, standing timber prices rose by about 20% during the year.

### **Dutch Elm Disease**

#### *Legislation*

22 Because the provision of the Dutch Elm Disease (Restriction on Movement of Elms) Order 1975 requiring bark to be removed from elm before transport into and within the lightly affected areas was creating difficulties for local authorities and timber merchants, and thus hindering the removal and destruction of sources of infection, we introduced a relaxation to the Order in June 1976. This allowed limited movement of elm with bark attached under licence by the Commission and permitted similar movements of elm to be authorised by appointed officers of local authorities.

#### *Elm Marketing Group*

23 The Group which we formed in 1976 has continued its efforts to promote new markets for elm. In co-operation with the Building Research Laboratory at Princes Risborough, widespread publicity has been given to the properties and uses of elm. The Group reported that there was a ready market for best quality elm and that there were indications that general purpose sawn elm was achieving wider uses, although potential supplies still exceeded demand.

Investigations were also undertaken into the feasibility of storing elm in large quantities, but this was considered to be uneconomic except for the small amounts of highest quality timber. Another major aspect of the Group's work has been a survey of sawing capacity in England and Wales which has enabled prospective users to be put in touch with potential suppliers.

### *Progress of the Epidemic*

24 The Forestry Commission survey of southern Britain in 1976 indicated that 5.9 million elms in the open countryside and in urban areas were dead or dying. When account is taken of elms in woodlands and trees felled over the past few years, it is estimated that nine million elms have died during the present epidemic out of the original population of 23 million in the area surveyed.

25 We also collected data on elm populations and on the incidence of disease throughout the rest of Britain. In Scotland and northern England, Wych elm was found to be the most prominent elm species. There were also significant numbers of Smooth-leaved elm, particularly the Wheatley elm, in cities. The level of disease in these areas was generally low and the best estimate of the total numbers of infected trees in Scotland was 500; these were widely dispersed but occurred mostly in eastern and central areas.

### *Counter Measures*

26 Besides the restrictions on the movement of elm logs with bark attached into and within the lightly affected areas, strategies for combating the disease by sanitation felling have been adopted by a number of local authorities, including East Sussex County Council, Greater Manchester Council and City of Glasgow District Council. With our encouragement, the Convention of Scottish Local Authorities has formed a working group, which includes representatives of the Forestry Commission and the Countryside Commission for Scotland, to share experience and to co-ordinate a control campaign. A similar group has been formed in northern England. During the year the Commission has continued to inspect selected sawmills in the lightly affected areas in order to verify compliance with the conditions attached to elm movement order licences and so contain the spread of the disease.

27 An important aspect of the current research programme is an assessment of the survival and future potential of the prolific sucker growth of English elms now occurring on many sites in southern England. In addition, observations are being made on the consequences of the exceptionally hot, dry summer of 1976 when, in some areas, the large elm bark beetle was able to breed in apparently healthy trees, a phenomenon not previously recorded in Britain.

### **Wayfaring and Orienteering**

28 With assistance from the British Orienteering Federation, we developed 14 wayfaring courses as a contribution to "Sport for All 1976". Wayfaring is a new form of forest recreation for the whole family. It is based on orienteering, but it is non-competitive and people of all ages can enjoy this new opportunity of exploring the forest at their own pace.

29 The Commission, at Culbin Forest, and the Moray Estates were hosts in September 1976 to the World Orienteering Championships, which were held in Great Britain for the first time.

## **Native Pinewoods of Scotland**

30 The Forestry Commission has a long standing interest in the conservation of the native pinewoods of Scotland. Experiments designed to perpetuate these by natural regeneration began in the early 1930s, and for the past 20 years large conservation reserves have been set aside in the two major native pinewoods owned by the Commission, the Black Wood of Rannoch and Glen Affric.

31 Following the publication in 1959 of "The Native Pinewoods of Scotland" by H. M. Steven and A. Carlisle, an informal group composed of representatives of private owners, the Forestry Commission, the Nature Conservancy Council, the Universities of Aberdeen and Edinburgh and other interested individuals was formed to discuss the question of their conservation. A symposium organised in May 1975 focused attention on the overall problem and proposals for the management of the pinewood remnants were made.

32 The importance of this subject has been recognised by the Government who have agreed that approved planting of native Scots pine of local origin should in future attract the same planting and management grants as broadleaves under the Basis III Dedication Scheme. This special grant will apply to the planting of native pine in or around the major remnants as identified by Steven and Carlisle and on the basis of management plans agreed by the owner with the Forestry Commission and the Nature Conservancy Council.

## **Research on Red Deer in Woodlands**

33 The Forestry Commission, the Red Deer Commission and the Institute of Terrestrial Ecology are setting up a joint programme of research on red deer in woodlands. Five main areas of research have been identified. These cover census techniques, damage assessment, deer behaviour, and woodland management in the short and long term (Plate 9).

34 The background to this research is that, while the population of red deer in Scotland has increased, the ground available to them is decreasing each year as more land is enclosed for forestry and other purposes. Although, with co-operation from neighbouring deer forest owners and the Red Deer Commission, efforts are made to reduce deer stocks and to select suitable fence alignments, deer will inevitably try to re-occupy land they have used previously.

35 It is estimated that our gross annual cost for deer control in Scotland alone is of the order of £0.25 million, largely attributable to fencing and the employment of Rangers. In the future the forests will become more varied in species and age and thus more attractive to deer as habitats; it can therefore be expected that control measures will become more difficult and costs will increase.

## **Effects of Fire and Drought**

### *Fire*

36 The summer months of 1976 were exceptionally warm and dry causing what was the first serious summer, as distinct from spring, fire danger season in the Commission's history. Both the surface peat layer and the vegetation were in a much more combustible state than in the spring, and fires tended to be larger and more prolonged than usual. For the first time, a substantial area of pole-stage crops was burned.

37 Thanks to the vigilance of the general public, the quick response of the Fire Services and the assistance of the Armed Services and other organisations, the



damage done, although severe, was less than it might have been in this unique period of risk. Details of our losses are given in the Forestry Enterprise section of the Report (paragraph 77).

### *Drought*

38 The drought conditions of the same summer period caused above-average losses of young trees, mainly in the south. Viewed nationally, however, replacement of plants in the forest will be only slightly above normal. Older trees fared less well, and significant numbers of over-mature beech, birch and larch have died. Trees on the drier sites were worst hit, but it is noteworthy that genera like oak withstood the conditions better than northern genera such as birch. On the thin shalk soils in south east and south west England, many thousands of old and mature beech have either died or been so badly affected by the drought that they are likely to die within a few years.

## **Amenity and Recreation**

### *The Raiders' Road Forest Drive*

39 Although our policy is to prohibit the regular use of roads in the forest by motor vehicles for recreational purposes, we operate a limited number of "forest drives" as toll roads. The first of our "forest drives" in Scotland was opened this year. It runs for 10 miles through the Galloway Forest Park from Clattering-shaws to Bennan, giving access to lovely stretches of the Water of Dee. It has been named "The Raiders' Road" as it was the location of some of the action in S. R. Crockett's novel "The Raiders".

### *Motor Car Rallies*

40 During the year we were strongly criticised by many rally enthusiasts because we found it necessary to raise our charges for the use of our roads. There was misunderstanding about the nature of these charges, which are levied at a rate solely to recover the cost of repairing the considerable damage which modern rally cars can cause to roads designed only to take slow-moving heavy vehicles. We are maintaining our policy of making forest roads available to a limited number of rallies (in close co-operation with the Royal Automobile Club); but we do not plan any extension because of the resulting conflict with one of the bases of our recreational policy, which is to provide facilities for informal recreation and the enjoyment of quiet pursuits.

### *Queen Elizabeth Country Park*

41 On 2 August 1976 Her Majesty the Queen opened the Queen Elizabeth Country Park. This Country Park, which is made up of 348 hectares of Forestry Commission land and 219 hectares of Hampshire County Council's adjacent land at Butser, is being managed jointly by ourselves and the Council. The visitor centre, which is on our land although mainly financed by the Council, had over 200,000 visitors during its first six months.

## **Health and Safety at Work, etc. Act 1974**

42 The Commission's general policy statement regarding the health and safety at work of its employees was prepared during the year. The preparation of written policy statements for all local management units is proceeding and will be completed shortly.

43 A Forestry Commission Health and Safety Committee under the Chairmanship of the Director General was set up following discussions with both non-industrial and industrial staff representatives, and held its first meeting in

December. The purpose of the Committee is to promote safety in all its aspects within the Commission.

44 Discussions are taking place with the Trade Unions concerning the appointment of Safety Representatives and the formation of Safety Committees, as required under Sections 2(4) and 2(7) of the Act which become operative on 1 October 1978.

### **Chairman**

45 As was noted in last year's report, Lord Taylor of Gryfe retired on 30 June 1976 and the new Chairman of the Commission, Mr John Mackie, took up duty on 19 July 1976. Mr Mackie was Parliamentary Secretary at the Ministry of Agriculture, Fisheries and Food between 1964 and 1970 when he had responsibility for forestry matters. He retired from Parliament in 1974 after 15 years as MP for Enfield East. He has farming interests in England and Scotland.

### **Director General**

46 Mr J. A. Dickson retired on 31 December 1976 and was succeeded by Mr G. D. Holmes on promotion to Director General. Mr Dickson (Plate 1) joined the Forestry Commission in 1938 and was appointed Director General in 1968 after spells as Conservator North Scotland, Director Scotland and Commissioner for Harvesting and Marketing. During his term of office he became recognised as a leading figure in European forestry. In 1974 he was Chairman of the Commonwealth Forestry Conference which was held at Oxford. We are happy to associate ourselves with the tributes paid by individuals and organisations in many fields to his outstanding contribution to British forestry.

### **Commissioners**

47 On 1 October 1976 Sir Ralph Verney, Captain D. S. Bowser, Mr A. M. Donnet and Mr C. G. A. Latham were reappointed as part-time Commissioners for a two-year period. The Rt. Hon. J. D. Gibson-Watt was appointed on the same date for a four-year period in place of Mr M. L. Bourdillon. The former Head of the Commission's Forest Management Division, Mr D. A. Mithen, succeeded Mr Holmes as Commissioner for Harvesting and Marketing on 13 December 1976.

### **Senior Staff**

48 Mr J. N. Kennedy took over the Commission's Forest Management Division on 4 January 1977 on promotion to Director. He was succeeded as Conservator North Wales by Mr R. T. Bradley, formerly an Assistant Conservator in the South Wales Conservancy.

49 The promotion of Mr G. J. Francis to head the Commission's Harvesting and Marketing Division in succession to Mr J. L. Davidson, who retired on 31 May 1976, was recorded in last year's Report, but took effect during the period covered by this Report.

### **Staff Numbers**

50 On 31 March 1977 the Commission employed 2,257 non-industrial staff (compared with 2,304 the previous year) and 5,820 industrial staff (128 fewer than last year).

# Forestry Authority

## Legislation

### *Dutch Elm Disease*

51 As foreshadowed in last year's Report, a limited relaxation to the Dutch Elm Disease (Restriction on Movement of Elms) Order 1975 was introduced in June 1976. The amending order – the Dutch Elm Disease (Restriction on Movement of Elms) (Amendment) Order 1976 (SI 1976/734) – permits elm with bark attached to be moved minimum distances within the lightly affected areas for debarking, either by local authority officers or under the terms of licences granted by Forestry Commission inspectors.

### *Rent (Agriculture) Act 1976*

52 This Act, which abolishes the agricultural tied cottage system in England and Wales, was placed on the statute book in December 1976. The definition of agriculture in the Act includes forestry, but while the operative date for the application of its provisions to full-time farm workers was fixed at 1 January 1977, Ministers decided to postpone the application of the Act to full-time forestry workers pending further information about the tied housing situation in private forestry.

53 We accordingly commissioned the Tavistock Institute of Human Relations to carry out a survey to obtain this information; this followed a similar survey which the Institute undertook into tied houses in agriculture in 1974. Although the Act applies only in England and Wales, the opportunity was taken to assess the position in Scotland. During the passage of the Act through Parliament, Ministers made it clear that the Forestry Commission would be expected in due course to follow its provisions by administrative arrangement. The survey was therefore extended to include the public as well as the private sector. The report of the survey was received and was being studied by the Commission at the end of the year under report.

### *EEC Plant Health Directive*

54 The EEC Council of Ministers have adopted a Directive – 77/93/EEC of 21 December 1976 – on protective measures against the introduction into Member States of harmful organisms of plants or plant products, which we are required to implement by the end of 1978. It concerns wood which retains all or part of its natural round surface, with or without bark. The Directive's aim is to harmonise plant health import controls by achieving as far as possible common plant health measures which, whilst affording adequate protection and improved standards for Member States, will also facilitate trade. Working party discussions on the draft Directive during the year resulted in a consider-

able improvement in the overall protection that will be provided against the introduction of forest pests and diseases into Britain.

### *Legislation in Preparation*

55 During the year work proceeded on the drafting of four new Statutory Instruments. These were:

- (a) *The Forest Reproductive Material Regulations* – these Regulations, due to come into operation on 1 July 1977, will revoke and re-enact with amendments the Forest Reproductive Material Regulations 1973. The amendments arise from the need to implement the terms of Directive 75/445/EEC which introduces a new category of forest reproductive material and in general adapts technical provisions to new scientific and technical knowledge.
- (b) *The Importation of Wood and Bark (Prohibition) (Great Britain) Order* – this Order will revoke the Importation of Wood (Prohibition) (Great Britain) Order 1974 and re-enact and extend its provisions. In particular, the present controls directed against oak wilt are to be extended and the protection against pests and diseases carried by coniferous wood with the bark still attached will be improved. The Order was planned to take effect in July 1977.
- (c) *Dutch Elm Disease (Restriction on Movement of Elms) Order* – this Order will consolidate the existing Dutch Elm Disease Movement Orders and adjust the scheduled areas in line with the spread of the disease. The Order was due to come into operation in August 1977.
- (d) *Dutch Elm Disease (Local Authorities) Order* – this Order, which will be introduced at the same time as the new Movement Order, will consolidate the existing Local Authorities Orders. In addition to adjustments to the schedule in line with the spread of the disease, there will be minor amendments in relation to the notice to be given before entering land and also the need for persons assisting an appointed officer to have written authority before carrying out work on private property.

### **Private Forestry**

56 We report with regret that the decline in new planting noted in recent years has continued. In 1976–77 only 9,156 hectares of planting were grant-aided under the Commission's schemes, of which 7,232 hectares were new planting (Table 3 of Appendix VIII). This last figure represents a drop of 62% compared with the average annual area of new planting grant-aided by the Commission during the five year period 1970–71 to 1974–75.

57 We have commented at length on the Government's measures to restore confidence in the private sector (paragraphs 4 to 13) and hope they will reverse the trend of the last few years and restore new planting to a reasonable level.

### **Research and Development**

#### *New Building*

58 A new extension at our main research station at Alice Holt Lodge, near Farnham, was completed and occupied during the year. This extension was built to provide accommodation for people previously working in deteriorating, temporary buildings and also for the new arboricultural staff. Project leaders have been appointed for the arboricultural research programme and the

arboricultural advisory service under the contract with the Department of the Environment mentioned in last year's Report, and the work is proceeding according to plan.

### *Nothofagus Seed*

59 The genus *Nothofagus* – the Southern beech – has a considerable potential for wood production and for amenity planting in Britain. In the past it has been difficult to obtain seed from South America, but in 1976 we succeeded in importing 400 kilograms of *Nothofagus procera* seed from Chile together with a wide range of research seed lots of various *Nothofagus* species and origins. These will be tested on a range of sites throughout Britain. We are now planning to send a botanist to Chile to complete the research collections of *Nothofagus* seed and to collect seed of several other interesting species not at present planted in Britain.

### *Windthrow Classification*

60 A classification of land according to the risk of windthrow in conifer plantations was completed and applied in some Conservancies to adjust thinning practices and improve long-term forecasts of timber production. The classification is used to assist in predicting the tree height at which plantations are likely to begin to suffer windthrow and should be a valuable aid in establishing and managing plantations in such a way as to minimise losses caused by the gales which may be expected in a normal year.

### *Pine Beauty Moth*

61 In Sutherland about 180 hectares of Lodgepole pine plantations were severely damaged by an infestation of the Pine Beauty Moth, *Panolis flammea*. Trees between 9 and 18 years old were totally defoliated by the feeding larvae and a high proportion of the trees subsequently died. Pine Beauty Moth is common in Britain but has not previously caused serious damage to plantations. Consideration is being given to monitoring populations with the aid of pheromones, and if necessary to control the progress of the attack should it continue to develop.

### *Red Deer*

62 As mentioned more fully in paragraphs 33–35, a research project to study the biology, management and control of red deer in Scotland is being undertaken jointly by the Forestry Commission, the Red Deer Commission and the Institute of Terrestrial Ecology.

### *International Union of Forestry Research Organisations*

63 Six members of the Research and Development Division attended the sixteenth World Congress of the International Union of Forestry Research Organisations. The Congress was held in Oslo from 20 June to 2 July 1976 with the theme "Forestry in a World of Limited Resources".

### *European Economic Community*

64 Our research staff represented the United Kingdom in Brussels in working party discussions and negotiations on the forestry aspects of the EEC Plant Health Directive referred to in paragraph 54.

### **Education and Training**

65 Some 450 courses were provided by our Education and Training Branch to meet identified training needs of both industrial and non-industrial staff.

Courses were also made available, on request, to the private forestry sector and other organisations. A number of Commission staff attended specialised courses conducted by external bodies.

66 Internal courses for our industrial staff covered such subjects as chemical weed control, spring steel fencing, extraction by winch, skidder and forwarder, mechanised loading, tariffing and thinning control. There was a considerable increase in demand for chainsaw courses during the year. Training in the use of heavy harvesting machinery was further developed at our machinery training centres in south Scotland and south Wales. The number of courses in management techniques was increased, although fewer courses than hitherto were required in the management of forest operations. Seminars were also held covering the Health and Safety at Work, etc. Act 1974.

67 Courses in forestry were again provided for students preparing for the examination of the Royal Institution of Chartered Surveyors, which were well subscribed, and a course on land use consultation procedures was held for local authority Planning Officers. Further work was done on instructors' training manuals, for which there continued to be a demand from other organisations at home and abroad. Several parties from overseas visited Forestry Commission training establishments.

68 Co-operation continued during the year with the various colleges and establishments concerned with forestry education and training, and with the Scottish Forestry Training Group operating under the auspices of the Forestry Training Council.

### **Finance**

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

# Forestry Enterprise

## Planting

70 A feature of 1976 was the long, very dry summer. This most unusual weather led, in the south of the country, to a very high proportion of losses of young forest plants. In the north of England and in Scotland losses were only a little above normal.

71 The spring of 1977 was cold and wet which resulted in a smaller area being planted than had been planned. New planting (Plate 8) and restocking taken together amounted to 18,703 hectares which was a lower area than the general level of recent years. About 55 million plants were used during the year, 97% coming from our own nurseries.

## Land Acquisition

72 The total area of plantable land acquired was 17,698 hectares including 595 hectares already under plantation. The distribution was as follows:

	<i>Total plantable area acquired</i>
	hectares
England	591
Scotland	16,305
Wales	802

The average cost of plantable land was £149 per hectare, an increase of 14% compared with 1975-76. Prices remained steady for most of the year but were tending to rise towards the end of the period.

73 After allowing for land disposals and the area acquired which was already planted, the net area of land obtained for new planting was 16,546 hectares (see Table 7 of Appendix VIII). For the second successive year the net gain of plantable land was close to that needed to replace the area planted. However, Diagram 1 on the next page demonstrates that the annual rate of acquisition of land over the past eight years has been insufficient to meet our planting programmes which have been maintained only by drawing on our reserves. The position will undoubtedly deteriorate further in 1977-78, if for no other reason than that the funds we can allocate to the purchase of land are considerably less than usual.

## Tree Seed

74 The 1976 seed crop for most species was more plentiful than has been the case for many years and substantial quantities of seed of both conifer and broadleaved species were collected. Priorities were set for collections based on carefully selected, well-growing stands of those species most important in afforestation.

## ACQUISITIONS OF LAND, RESERVES OF PLANTABLE LAND AND NEW PLANTING 1966-67 TO 1976-77

HECTARES  
(Thousands)

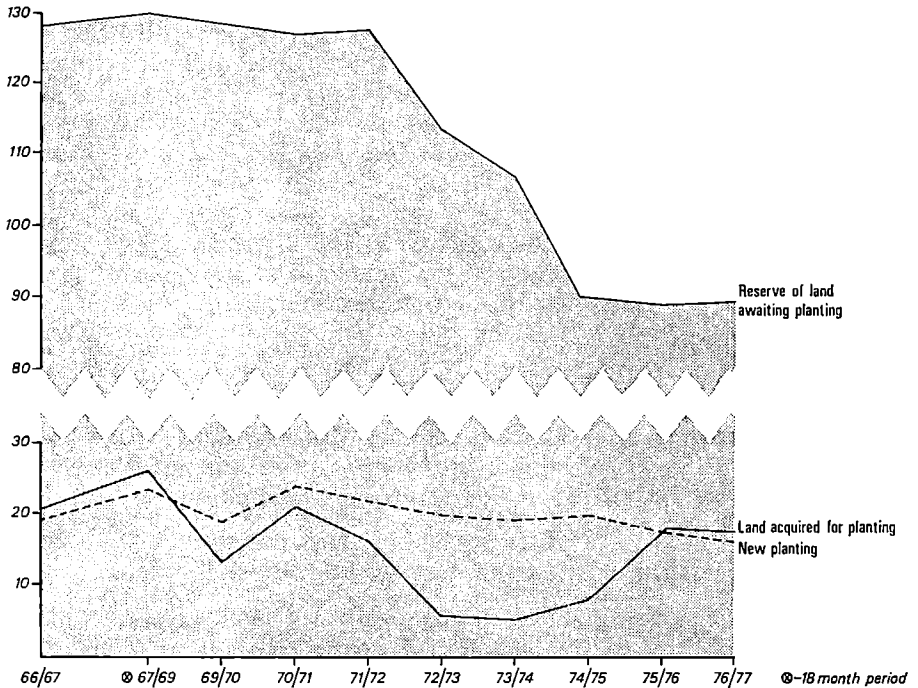


DIAGRAM 1. Land acquired for planting is shown as the net plantable area, i.e. areas of plantations which have been acquired, and land disposed of in exchanges, have been deducted.

75 Enough Sitka spruce seed was collected to meet likely requirements for five years and a one year supply of Douglas fir and Japanese larch was collected. Smaller collections were made of Hybrid larch, Scots pine and Lodgepole pine.

76 Collections of broadleaved seeds were also above average. All requirements of Pedunculate oak and about half of those of Sessile oak were met from registered British sources. The very heavy beech mast was disappointingly devoid of full seed and home sources produced only half the requirement; deficiencies were made up from imports. An exceptional import was that of 400 kg of *Nothofagus procera* seed from Chile after many years of negligible supply, to which reference has already been made in paragraph 59.

### Fire Danger

77 The 1976 drought resulted in exceptional summer fire danger, during which period we lost a greater area of plantations than in any year since 1942. A total of 2,191 hectares of plantations were destroyed, 832 hectares in England, 368 hectares in Scotland and 991 hectares in Wales.

78 The fire danger season usually lasts from about January to May which is a time of year when there are few people about. However, as the danger period in 1976 was in the summer there were a great many people in the forests, and we are sorry to have to report that two-thirds of the fires which started on our land were attributed to carelessness by visitors. At one stage during the summer, such was the danger that we thought it necessary in some parts of the country



to take the unprecedented step of asking the public not to come into the forests. We were heartened by the understanding response we obtained.

79 Our hard pressed foresters had new and unhappy experiences including, for some, the first taste of crown fires as distinct from fires travelling through the ground vegetation. We learnt a number of important lessons; the value of easily accessible water, the benefits of good communications, especially radio, and the need to have earth-moving equipment available for the rapid construction of fire traces (Plate 2). However, we are not dissatisfied with our preparatory measures which we do not intend to alter. The summer fire danger of 1976 will long be remembered, but the probability is that such exceptional danger will not recur for a very long time.

## **Recreation**

### *Increased Facilities and Usage*

80 During the year we have again increased the provision for recreation in the forest (Plate 6). A summary of the facilities provided, from fully equipped camping and caravan sites and forest cabins, to simple provision for day visitors like car parks and waymarked walks, is given in Table 13 of Appendix VIII. There is no doubt that our work in this field is greatly appreciated by the general public, and we are encouraged to continue to add to the facilities we have provided.

81 After a slight reduction in the number of people using our camping and caravan sites last year, there was an increase of 18% in 1976 to the highest ever total of over 1.5 million "camper nights". We attribute this increase mainly to the wonderful summer weather.

### *Awards Received*

82 We were pleased to receive commendations from the Scottish Civic Trust under the Spey Valley Tourist Organisation Award Scheme 1976 for our Glenfeshie picnic site and the Glenmore camping and caravan site. In Wales, two recreation facilities, the Maesgwm Visitor Centre and Garth Falls Walk for blind and disabled people, received Prince of Wales' Awards. We also received an award jointly with the local authority for the open week-ends at Rhondda Forest.

### *Wayfaring*

83 We have already referred in paragraphs 28 and 29 to the wayfaring courses which, with the help of the British Orienteering Federation, we established this year. This leisurely version of the splendid forest sport of orienteering is proving popular, especially with families and young people.

## **Forest Design**

84 In providing recreational facilities we attach particular importance to visitor centres, where information about the forest can be obtained and where the forest and its setting in the locality can be explained with a main objective of encouraging visitors to go out into the forest to see more for themselves. Work began on displays at new visitor centres under construction, and those at several existing centres were refurbished.

85 The Commission played a main part in initiating a survey on the design and management of self-guided trails which was carried out by the Dartington Amenity Research Trust on behalf of a number of countryside agencies.

86 During the year we sent a Forest Officer to the University of Manchester, to study for the Diploma in Landscape Design. On successful completion of his two-year course he will join our Forest Design Branch to work alongside our present Landscape Architect.

### **Forest Cabins**

87 The second of our schemes of forest cabins was completed during the year and was due to open on 2 April 1977. The site is in Cornwall and comprises 30 cabins with sleeping accommodation for five or six people. It is in an attractive woodland setting and not far from the beaches of the south coast. We believe this development will be a welcome addition for holiday makers to the self-catering accommodation in Cornwall. A further development is now being planned at Keldy in the North Yorkshire Moors near Pickering. Work on this new project began in the spring of 1977.

### **Estate Management**

#### *Disposals*

88 The disposal of land and buildings continued in respect of properties which were either surplus to the Commission's needs or were required by local authorities and other public bodies for statutory purposes. Few crofts on Forestry Commission land have so far been sold under the terms of the Crofting Reform (Scotland) Act 1976, but it is expected that increasing numbers of crofters are likely to wish to buy.

89 Income from all disposals was £1.7 million. The cash receipts from this activity are expected to decrease steadily over the next few years as the stock of surplus properties is depleted.

#### *Expenditure and Income*

90 During the year buildings were constructed, improved or acquired at a cost of £1.2 million. The capital building programme was limited by the reductions in public expenditure, but good progress was made in improving the accommodation and amenity standards of Foresters' and Forest Workers' houses and the provision of a new sewerage scheme for 55 houses at Santon Downham. The projects completed included eight new forest offices, as well as deer larders designed to meet EEC standards.

91 Additionally, £0.4 million was spent on non-commercial, capital recreation work including £0.2 million on visitor centres. New centres were opened at Wyre and Farigaig and building work is proceeding on another five. Picnic sites, car parks and viewpoints were constructed at various strategic points.

92 Expenditure on repairs and maintenance of all buildings was £1.2 million. Rent income was £0.7 million. The reassessment of rents continues following the easing of statutory restrictions, but the implementation of "fair rents" for Foresters and Forest Workers was postponed pending further negotiations.

93 Details of the number of properties managed by the Commission are given in Table 12 in Appendix VIII.

### **Harvesting and Marketing**

#### *Demand*

94 The demand for all categories of roundwood improved during the year. While the improvement was modest for pulpwood, there was a stronger recovery

in the demand for wood for sawmilling and particle board manufacture. The improved market conditions resulted in an increase in production: at 2,020,000 cubic metres, Diagram 2, this was about 29% higher than last year and very slightly higher (about 4%) than that required to achieve the targets set in the Commission's longer term production plan. However, production was stimulated by the need to harvest the considerable volume of timber blown down in the gale of January 1976, which we reported last year.

### Prices

95 Prices for timber at forest roadside showed an increase in all categories, those for sawlogs being more marked than for other categories of roundwood.

96 The main features of operations in the year, with comparable figures for previous years, are summarised below:

	Unit	1973-4	1974-5	1975-6	1976-7
Million					
Total Removals .. .. .	cubic metres	1.61	1.61	1.56	2.02
By Sale Standing .. .. .	„	0.57	0.63	0.55	0.83
By Forestry Commission harvesting	„	1.04	0.98	1.01	1.19
£ million					
Gross Receipts .. .. .		12.33	17.95	16.69	23.36
Expenditure (including oncosts but excluding overheads) .. .. .	„	4.69	6.04	7.51	9.23
Net Receipts .. .. .	„	7.64	11.91	9.18	14.13
£					
Receipts per cubic metre		7.66	11.15	10.70	11.56
Expenditure per cubic metre	„	2.91	3.75	4.81	4.57
Net Receipts per cubic metre	„	4.75	7.40	5.89	6.99

The trend of total wood production over the last 20 years is illustrated in Diagram 2 below.

WOOD PRODUCTION 1957-77

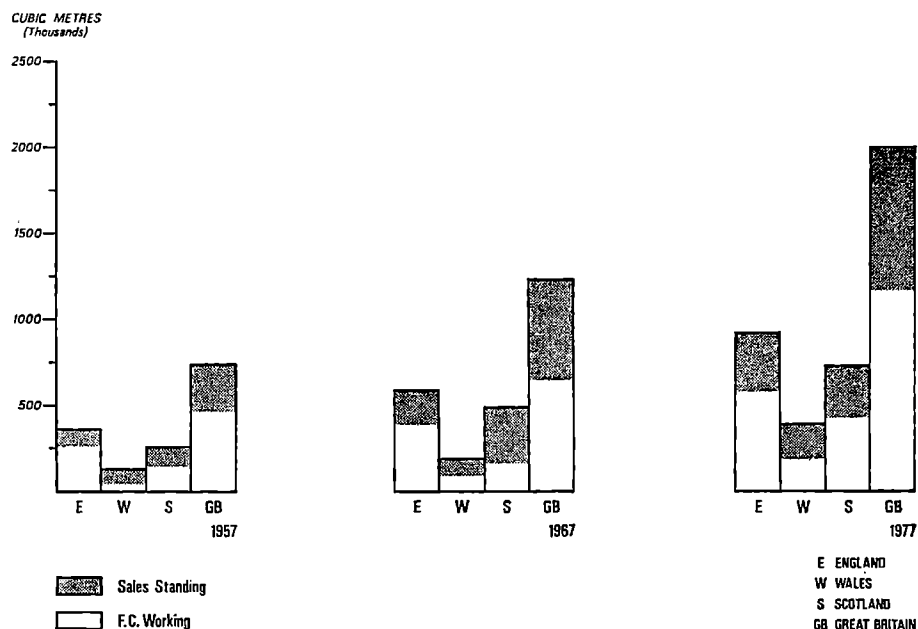


DIAGRAM 2. Wood production increases in the period 1957 to 1977 and the relative proportions sold standing and worked by the Forestry Commission.

### *Sawlog Sales*

97 Sawmillers have maintained a steady interest in purchasing logs throughout the year (Plate 5). In the first half of the year, there was a good rate of removal of logs from the forests under existing contracts and this gained momentum in the second half. In response to this increased demand we increased log production from our own harvesting operations and removals for the year were about 20% above last year's previous peak. Prices in the first half of the year were about 20% higher compared with the end of last year and they went up a further 20% in the last six months. These increases can in the main be attributed to the effect of rising prices of imported sawn softwood which had been influenced by the decline in the exchange rate. Toward the end of the year prices showed some sign of stabilising.

### *Conifer Small Roundwood Sales*

98 There was a slight improvement in the demand for pulpwood. Even so, recovery to the normal supply rate was not achieved because most mills continued to work below capacity. Total pulpwood deliveries were 6% higher than last year. Prices for pulpwood advanced slightly in response to higher prices for imported pulp, paper and board.

99 Supplies of wood to the particle board industry increased and were about 26% higher than last year. This reflected an expansion of production in the industry, and home produced particle board met a higher proportion of the total requirements in the country. Prices for roundwood for particle board manufacture rose at about the same rate as pulpwood prices.

100 The quantity of round pitwood supplied to the coal mining industry fell slightly below expectations, mainly as a result of a fall in the production of deep mined coal. Supplies were made to pits which previously used imported wood.

### *Sales of Standing Trees*

101 Standing timber sales increased considerably during the year. The major part of the increase took place in England and Wales, where resources were concentrated on the substantial volume of windblown timber from the gale of January 1976.

102 Sales, including windblown timber, totalled 838,000 cubic metres, compared with 568,000 cubic metres in 1975-76.

103 Removals of timber under standing sales contracts amounted to 832,000 cubic metres, reflecting both the increased sales and the reduction of arrears under existing contracts resulting from the slower rate of progress last year, when removals totalled only 553,000 cubic metres.

104 Average prices increased by 20%. This resulted from a number of factors, including an increase in delivered roundwood prices and a slower rate of increase in harvesting costs than last year. The Great Britain Price Index for small standing conifers rose from 260.9 at the beginning of the year, to 307.7 at the half way mark and to 312.0 at the end of the year.

### *Windthrow*

105 The final estimate of the volume of timber blown down in Commission forests during the severe gale in January 1976 amounted to 860,000 cubic metres. Further windthrow during the winter of 1976-77 brought the total to 900,000 cubic metres. At the end of the year a total of 750,000 cubic metres had been

felled and over 90% of this volume had been despatched from the forests. The programme of clearance is on schedule and we expect the entire operation to have been completed by the autumn of 1977.

106 The clearing and marketing of the windblown timber has been achieved in an orderly fashion. This has been due to the efforts of our own staff in planning and controlling the operation, to our harvesting teams who carried out much of the work and to the timber trade through their co-operation and resourcefulness in concentrating their harvesting resources on the task.

#### *Other Developments*

107 During the year we completed arrangements with the Home Timber Merchants' Associations for the publication of a Price Index for softwood sawlogs sold by the Commission. As well as providing information on price movement, the index will be used in price adjustment clauses for contracts offered by competitive sale for the supply of sawlogs in the medium and long term.

108 While no new major wood-using projects have been established during the year, a number of existing sawmills have embarked on modernisation and expansion programmes. A major expansion has also taken place at the chipboard plant of Scotboard Ltd at Irvine in Ayrshire, and the chipboard plant of Weyroc Ltd at Annan has re-opened after a period of closure.

109 A further important development during the year was the revision of the Building Regulations (England and Wales) to allow the use of machine grade M75 spruce for use as structural timber; this can be expected to enhance the position of British sawn spruce.

#### *Harvesting Labour and Methods*

110 Our main priority during the year was to build up the harvesting resources required to meet the improvement in market conditions which had been expected during 1976 and 1977. The position has improved steadily during the year, giving rise to an increase in the rate of harvesting and a considerable increase in total volume harvested.

111 Costs of harvesting continued to increase, but less markedly than in 1975-76. The restoration of more normal levels of product demand resulted in better use of harvesting labour and correspondingly better productivity.

112 The introduction of modern equipment and improved methods of harvesting is an essential factor in achieving the higher levels of output and improved working conditions necessary to maintain the momentum required to meet our increasing wood production. Especially important is the need to employ systems of mechanised harvesting for the smaller tree sizes associated with early thinnings. To achieve these requirements we continued to give high priority to trials of harvesting machines, adapting them to our needs where necessary.

### **Engineering**

#### *Civil Engineering*

113 Exceptionally fine summer weather enabled good progress to be made with civil engineering work. It also allowed a greater amount of agency work to be tackled with existing resources, the major tasks being accommodation works for

the construction of Kielder Water Dam in north east England and for the A9 improvement in north Scotland, together with tip reclamation in south Wales.

114 One of the results of the wider road spacing now being adopted with the aim of achieving optimum economy is the greater volume of timber being extracted to any given length of road. This has focused attention on the need to provide adequate timber stacking and loading points at acceptable cost; this presents a difficult problem in steep terrain.

115 The total length of forest roads is now 15,569 kilometres (9,674 miles), 22 kilometres (13.6 miles) having been completed to initial stage and 243 kilometres (151 miles) to final standard during the year, which necessitated the construction of 30 road bridges. In addition 10 footbridges were constructed.

116 Good progress was made in the survey of deposits of construction materials within Commission property, and the assessment of the properties of and markets for the materials. Where our particular needs can be met, the exploitation of such materials is proving profitable. Environmental damage is reduced since the workings are generally hidden from view and the shorter haulage distances entail less use of public roads by heavy vehicles.

117 Over the past few years good progress has been made in replacing low standard repair workshops with suitable new buildings. During the year work started on the construction of a new workshop at Dunkeld in east Scotland and on building at our central workshop at Chapelhall in west Scotland, which is being modernised and extended to cater for the increased workload and to provide greater efficiency.

#### *Mechanical Engineering*

118 Deliveries of the hydrostatic tractor have continued at a slow rate, but the standard of reliability has greatly improved recently with the introduction of modifications resulting from the accumulation of field experience.

#### *Radio*

119 Further improvement was made in the coverage of the radio network, which proved invaluable during last summer's severe outbreaks of forest fires.

#### **Forest Workers' Pay**

120 A settlement, effective from 24 January 1977, resulted in the addition of a second supplement to pay of 5% of total weekly earnings inclusive of piecework and overtime with a minimum of £2.50 and a maximum of £4 a week for all full time employees aged 18 years and over. This settlement was in accordance with the Government's publication "The Attack on Inflation - The Second Year" and brought the rate, including supplements, to £39.50 a week for Unskilled Forest Workers and £42.60 a week for Forest Craftsmen.

121 The average weekly earnings of all Forest Worker grades, based on a sample of one full week's work each quarter, were £54.57.

#### **Safety**

122 There was a welcome reduction in the accident rate, which fell from 8.5 to 7.6 per 100 employees. This represents the best annual improvement seen in the last decade. The number of accidents reported fell from 507 to 437, a reduction of about 13%. The accident record in forestry is the fourth highest in a wide range of British manufacturing and processing industries, and it is to be

hoped that this year's favourable downward trend in the frequency of accidents among Commission staff will be maintained.

123 Research aimed at improving the comfort of certain items of personal safety equipment has continued during the year and an improved safety boot has been introduced recently. A new type of safety helmet which incorporates ear and eye protection will be available in the near future.

## **First Quinquennial Financial Review**

### *Introduction*

124 As already mentioned in paragraph 1 of this Report, the Accounts of the Forestry Enterprise were reconstructed in 1972. Plantations were valued on the basis of the sum of net incomes expected in the future discounted at 3%. Plantable land awaiting planting was valued at 1972 market prices, fixed assets at historic cost less, where appropriate, accumulated depreciation, and stocks and work in progress at the lower of cost or market value. At the same time subsidies were introduced into the account:

- (i) to record the difference between 3% and the ruling rate of interest (forestry subsidy);
- (ii) to cover new planting and restocking undertaken primarily for social reasons which could not earn the target rate of return;
- (iii) for the provision of recreation, amenity and nature conservation for which no commercial objectives could be set.

The purpose of these three subsidies is two-fold. First, to identify the actual subsidies attributable to certain functions imposed on the Forestry Commission; secondly, to provide for the proper accounting of additions to capital to be made so that progress in the achievement of the target rate of return set at 3% in real terms can be measured from time to time. Provision was also made for the annual calculation of standards for plantations expenditure and income and the assessed value of timber cut. The accounts prepared annually from 1972-73 have shown actual income and expenditure against these standards.

### *Measurement of Performance 1972-77*

125 In our Report for 1975-76 an indication of performance was made after four years of the first quinquennium by comparing accumulated expenditure in £(1976) against accumulated standards also expressed in £(1976), but this was only broadly indicative of progress towards achieving the target rate of 3%. The measurement of financial success in such a long-term venture as forestry can only be at best conjectural over any short period, since a typical crop cycle is 50 years for conifer plantations and 100 years for broadleaved. It was, however, considered realistic to make interim assessments of performance on the best available basis, ie a full revaluation of assets at quinquennial intervals. Accordingly, at the end of the year under report, a revaluation of the Forestry Enterprise assets (Stage I) was undertaken using the same methods and the same costs and prices as employed in 1972.

126 As in 1972, all management options have been reviewed and have resulted in programmes of forest management, civil engineering work and harvesting set out for the next seven decades. The unit costs of operations and the prices of wood set in 1972 have been revalued in £(1977) and applied to the physical measure of work to be done and volumes of wood to be cut to arrive at a 1977

value. The total asset value in £(1977) was then compared with the opening capital, net additions thereto in the form of grants-in-aid (less planting and restocking and forest recreation subsidies), increases in the Superannuation Fund, and interest at 3%, all expressed in £(1977). If a 3% real rate were being achieved the asset values would exactly match the liabilities. The following results however emerge:

	£ (1977) million	
<i>Liabilities</i>		
Opening capital as at 1/4/72 .. .. .		314.9
Additions to funds provided by grants-in-aid ..	98.2	
less subsidies: Planting and Restocking .. ..	38.7	
Forest Recreation and Amenity	13.0	51.7
Increase in Superannuation Fund .. .. .		46.5
Interest at 3% on funds provided and internally generated surpluses .. .. .		7.4
		55.2
	<b>Total</b>	<b>£424.0</b>
Assets as at 1/4/77 .. .. .		<b>£446.3</b>
Excess of asset value over accumulated liabilities ..		<b>£22.3</b>

The main reasons for this surplus are:

- a. Variations in revenues and expenditures in the period 1972-77 against standard costs and prices. Although the volumes of wood marketed over the quinquennium were lower than planned, the prices achieved were in real terms higher than expected; the prices paid for plantable land were also higher than expected, while other expenditures were in line with the standards set, with overheads greater than foreseen but direct expenditure lower compared with standards .. 19.9
- b. Changes in the composition of growing stock, in cutting regimes assumed, in volume of forest management and road operations to be carried out and in expected overhead levels, all having an effect after 31 March 1977, but attributable to management decisions taken during the quinquennium .. .. . 2.4

127 The surplus of £22.3 million measured over the whole rotation represents an improvement in the overall rate of return from 3% to 3.1% in real terms after taking account of subsidies.

#### *Opening Valuation for Quinquennium 1977-82*

128 The same process of comparing asset values with liabilities will be undertaken at the end of the second quinquennium in 1982. New cost and price weights have been applied and discounted at 3% in assessing both the asset values at 1 April 1977 (Stage II) and the per hectare planting subsidies required during the period 1977-82. There are two reasons, inflation apart, for making a new assessment of these values. One is that the levels of certain costs and prices have altered in real terms. For example, the average value of plantable land in 1972 was £60 per hectare, or £124 expressed in £(1977), whereas the comparable figure in 1976-77 was £170. The second is that whereas fixed assets, apart from plantable land awaiting planting, were valued in the 1972-77 accounts at historic costs, the opportunity has now been taken to introduce the recommended current cost accounting principles into the assessment of the revised asset values.



Some changes in accounting have also been incorporated into the calculation of 1977 asset values and subsidies; for example, the provision of 45% of Research and Development expenditure to be charged to Forestry Enterprise activities. The outcome of this further revaluation is set out in the special Note 1 to the Accounts.

*Planting Subsidies for Quinquennium 1977-82*

129 As in 1972, net discounted revenues have been calculated for each of the selected model site types and the results weighted to produce Conservancy average new planting and restocking subsidies. These are set out in detail in the special Note 1 included with the Accounts. In real terms the new planting subsidies are generally lower than those in the first quinquennium, while those for restocking are in some cases higher. Despite the regional variations in levels of subsidy, all planting and restocking undertaken is expected to yield a positive return. Differences arise from changes in the mixture of site types which it is intended to plant and in the accounting conventions adopted, as well as from changes in the assumptions on future wood prices by region and differential movements in costs in Conservancies. The new subsidies per hectare required for the quinquennium 1977-82 will result in a total subsidy in real terms which will be lower than for the first quinquennium.

*Forest Recreation and Amenity and Nature Conservation Subsidy*

130 The level of expenditure in real terms has in recent years been about £3 million annually and this will be continued in the period 1977-82.

131 The accounts of the Forestry Enterprise, including general notes and explanations and special notes relating to the quinquennial revaluation and the performance in the first quinquennium, together with the Comptroller and Auditor General's Report on the Accounts, appear after page 79.

J. MACKIE, *Chairman*

G. D. HOLMES,

*Deputy Chairman and Director General*

D. S. BOWSER

A. M. DONNET

J. D. GIBSON-WATT

J. M. HUNTER

C. G. A. LATHAM

D. A. MITHEN

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 1977 was as follows:

#### *England*

Sir Ralph Verney, Bt. (*Chairman*), Mr J. L. Benson, Major D. J. C. Davenport, Mr C. G. A. Latham, Mr M. G. Reade, Mr G. G. Stewart. *Secretary to the Committee*: Miss B. A. Landimore. The Committee met in May and October 1976 and February 1977.

#### *Scotland*

Capt. D. S. Bowser (*Chairman*), Lt.-Col. A. E. Cameron, Mr A. M. Donnet, Mr D. A. Mithen, Mr William Wolfe, Capt. J. M. A. Yerburgh. *Secretary to the Committee*: Mr B. W. Cann. The Committee met in May and November 1976.

#### *Wales*

The Rt. Hon. J. D. Gibson-Watt (*Chairman*), Mr B. Davies, Mr D. Davies, Mr J. M. Hunter, Hon. T. O. Lewis, Mr. J. W. L. Zehetmayr. *Secretary to the Committee*: Mr E. G. Owen. The Committee met in July and December 1976 and March 1977.

### Regional Advisory Committees

The membership of the Committees at 31 March 1977 was as follows:

#### *ENGLAND*

##### *North-West Conservancy*

Mr J. L. Benson (*Chairman*), Mr M. J. Fitzherbert-Brockholes, Mr E. M. Hart, Mr F. G. Humphreys, The Earl of Lonsdale, Mr H. Pepper, Mr A. H. Unsworth, Mr C. J. Venables, Mr R. Ward. *Secretary to the Committee*: Mr D. P. Pringle. The Committee met in October 1976.

##### *North-East Conservancy*

Mr R. H. B. Hamersley (*Chairman*), Mr P. O. R. Bridgeman, Mr J. Brocklebank, Mr J. M. Coatsworth, Mr A. J. Green, 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 May 1976 and February 1977.

##### *East Conservancy*

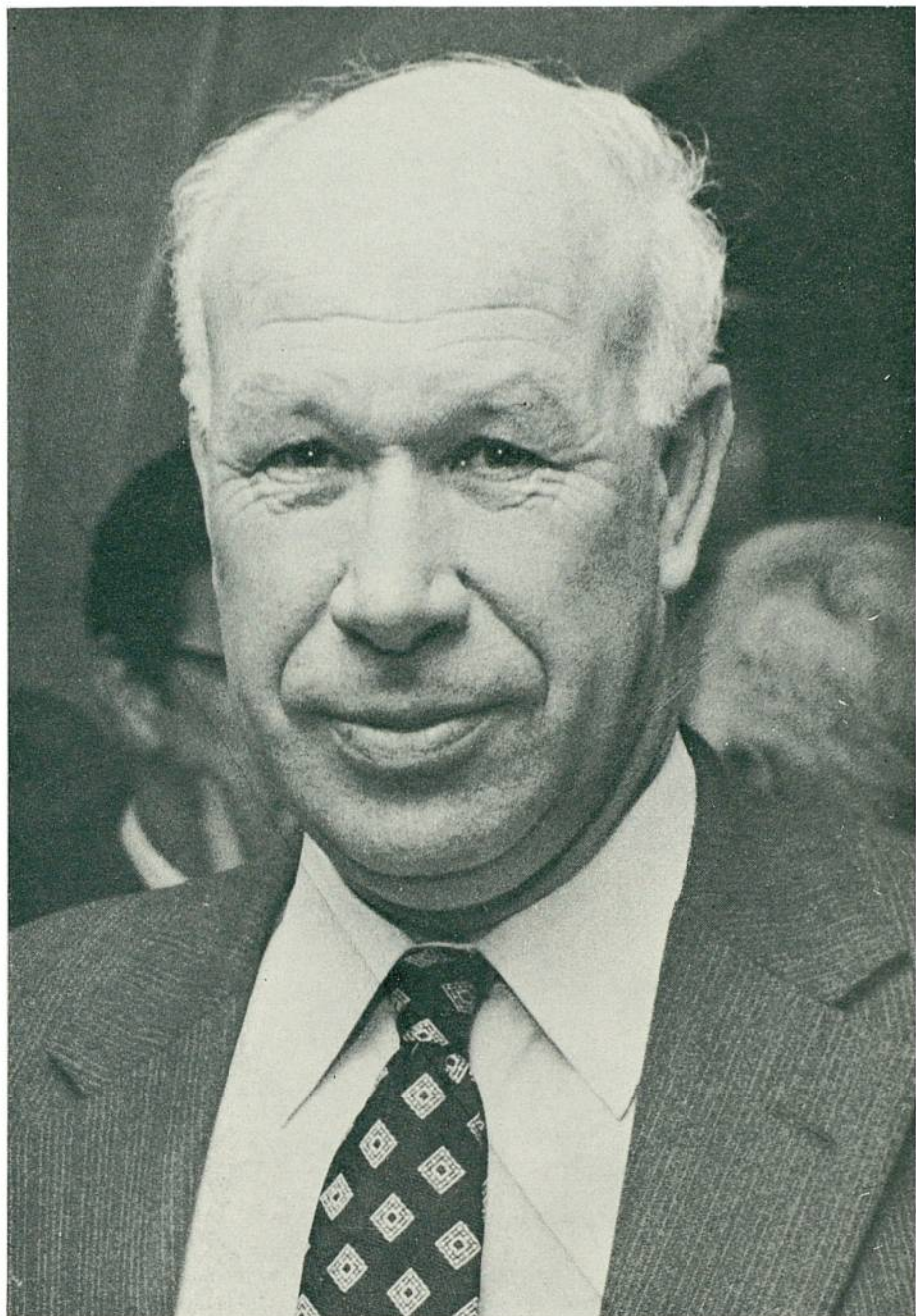
Mr M. G. Reade (*Chairman*), Major G. K. Agnew, Mr J. R. Boddy, Mr R. W. R. Browning, Mr W. H. Darling, Major A. G. N. Hadden-Paton, Mr W. E. Lane, Mr F. J. Massey, Mr J. K. Royston. *Secretary to the Committee*: Mr A. J. Searle. The Committee met in September 1976.

##### *South-East Conservancy*

Mr P. H. L. Hills (*Chairman*), Mr L. C. Chapman, Mr T. J. Daniel, Viscount Falmouth, Dr W. P. K. Findlay, Mr D. T. Hodson, Mr H. Mackworth-Praed, Mr D. J. Mansbridge, Mr J. H. Stenning. *Secretary to the Committee*: Mr L. W. Bowman. The Committee met in June and October 1976 and March 1977.

##### *South-West Conservancy*

Major D. J. C. Davenport (*Chairman*), Mr W. H. Denniss, Mr H. M. Hale, 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 September 1976 and February 1977.



**Plate 1**

John Dickson, CB, LLD  
Director General 1968-1976.

**Plate 2 A** bulldozed fire trace helped to stop this fierce moorland fire at the edge of Radnor Forest in mid Wales - August 1976.



## SCOTLAND

### North Conservancy

Lt.-Col. A. E. Cameron (*Chairman*), Mr J. Evans, Major P. Hunter Gordon, Mr A. N. S. Kinnear, Mr G. G. Lyon, Major A. McCall, Mr H. D. Skinner, Mr R. W. K. Stirling, Mr A. F. F. Williamson. *Secretary to the Committee*: Mr T. S. B. Macbeath. The Committee met in May and November 1976.

### East Conservancy

Dr Jean Balfour (*Chairman*), The Viscount of Arbuthnott, Mr G. W. Christie, Mr J. R. Cordiner, Mr N. Gordon-Smith, Mr J. Hinselwood, Mr D. F. Ogilvie, Major R. N. Jardine Paterson, Professor K. Walton. *Secretary to the Committee*: Mr E. G. Roberts. The Committee met in June and November 1976.

### South Conservancy

Capt. J. M. A. Yerburgh (*Chairman*), Mr J. Hunter Blair, Mr D. Bridges, Mr E. Clarke, Mr H. Crawford, Mr T. Y. Gibson, Admiral Sir Nigel Henderson, Capt. J. G. Milne-Home, Major R. L. Park. *Secretary to the Committee*: Mr R. B. Stewart. The Committee met in April and September 1976.

### West Conservancy

Mr William Wolfe (*Chairman*), Mr D. Brierton, The Marquess of Bute, Mr T. Doyle, Mr A. Fleming, Capt. W. F. E. Forbes, Capt. P. L. Mackie-Campbell, Mrs E. Sillars, Mr P. Tennant. *Secretary to the Committee*: Mr F. S. Henderson. The Committee met in April and October 1976.

## WALES

### North Conservancy

Mr T. H. Owen (*Chairman*), Mr F. C. Best, Mr H. Davies, Mr I. Edwards, Mr N. H. Gore, Mr J. M. Harrop, Mr V. Lloyd, Major P. C. Ormrod, Mr Langshaw Rowland. *Secretary to the Committee*: Mr G. H. Bowers. The Committee met in May and October 1976.

### South Conservancy

Mr H. L. Knight (*Chairman*), Mr E. Bartlett, Mr B. R. Feaver, Mr A. J. Llewellyn, Mr M. A. McLaggan, Mrs D. Walmsley, Mr J. Walters, Mr R. H. Wheelock. *Secretary to the Committee*: Mr R. R. Davies. The Committee met in April and October 1976.

## Home Grown Timber Advisory Committee

The membership of the Committee at 31 March 1977 was as follows:

Sir Goronwy Hopkin Daniel (*Chairman*)

Lord Dulverton	}	Timber Growers' Organisation Ltd.
The Earl of Lonsdale		
Mr R. M. Harley		
Capt. W. F. E. Forbes	}	Scottish Woodland Owners Association Ltd.
The Hon. James Bruce		
Mr A. B. L. Munro-Ferguson		
Mr W. J. Alsford	}	Home Timber Merchants' Association of England and Wales
Mr F. A. Megginson		
Mr H. J. Keys		
Mr J. E. MacDonald	}	Home Timber Merchants' Association of Scotland
Mr G. G. Lyon		
Mr A. J. Brownlie		
Mr E. A. Burn		National Coal Board
Mr J. G. M. Dawson		Timber Trade Federation of the United Kingdom
Mr J. H. R. King		British Wood Chipboard Manufacturers Association
Mr J. J. Morris		Association of United Kingdom Wood Pulp Producers
Mr H. Richardson		Timber Research and Development Association Ltd.
Mr P. Evans	}	Independent
Mr R. Pierson		
Mr M. M. Ord Johnstone		

*Secretary*: Mr J. A. Dunford

The Committee met in April, July and October 1976 and January 1977.

The Annual Report of the Committee is at Appendix II, page 35.

The Chairman of the Commission, the Director General and the three full-time Commissioners were present during meetings of the Committee. Part-time Commissioners, the Director of the Princes Risborough Laboratory, Department of the Environment, and a senior officer of the Department of Industry 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 1977 was as follows:

Mr H. Richardson	Timber Research and Development Association Ltd. ( <i>Chairman of the Sub-Committee</i> )
Mr A. E. Aitkins	} Timber Growers' Organisation Ltd.
Major P. C. Ormrod	
Mr D. B. Crawford	Scottish Woodland Owners Association Ltd.
Mr R. J. Tilley	} Home Timber Merchants' Association of England and Wales
Mr E. R. Campbell	
Mr T. Smith	} Home Timber Merchants' Association of Scotland
Mr J. E. McDonald	
Mr J. Henderson	Institute of Foresters of Great Britain
Mr R. V. Thornton	British Wood Chipboard Manufacturers' Association
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 June and September 1976 and January and March 1977.

The Annual Progress Report of the Sub-Committee is at Appendix II, page 35.

### **Advisory Committee on Forest Research**

At 31 March 1977, 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 J. F. Levy	

*Secretary:* Mr N. E. Stutter

The Committee met in November 1976.

## **Appendix II**

# **Home Grown Timber Advisory Committee: Annual Report for the year ended 31st March 1977**

During the year the Committee's discussions were dominated by evidence of decreasing confidence within the private forestry sector and a serious reduction in the levels of afforestation being planned and undertaken.

The Committee kept under review the progress of an inter-departmental review of private forestry undertaken by the Government in July 1976, the outcome of which was announced by the Minister of State, Treasury, on 30 March 1977.

The Committee gave advice to the Minister of Agriculture that a greater measure of support should be given to the EEC draft Forestry Directive, and a representative delegation met the Minister on 9 December 1976. Consideration was also given to the draft EEC Forestry Policy Aims Paper.

Further consideration was given to the effects upon forestry of the Scotland and Wales Bill proposals, and the Committee re-affirmed its conviction that the unified structure of forestry should be retained and that the association of forestry with agriculture, particularly in the uplands, should be encouraged. The Chairman conveyed the Committee's view to the Minister of Agriculture.

The Committee endorsed the considerations discussed by the Chairman in an address on the subject of "Energy and Land Policies". The portents of hydro-carbon and chemical feedstocks shortages and the importance of reviewing the role of forestry were indicated.

The Committee considered an Amendment to the Importation of Wood (Prohibition) (Great Britain) Order 1974 extending the controls directed against oak wilt and improving the protection against pests and diseases carried with and under the bark of coniferous wood. It accepted that a reasonable degree of protection would be provided by the Amendment.

At each meeting the Committee took note of the progression of Dutch elm disease problems. Regular reports were made available by the Elm Marketing Group, which had provided an invaluable service in disseminating information about the uses of elm and in developing and creating marketing outlets. Problems in the felling and disposal of lower-quality elm remain. The autumn survey of the disease showed an extension into parts of Scotland. Modifications to the Dutch Elm Disease Orders were agreed during the year.

Regular reports were made to the Committee by the Supply and Demand Sub-Committee and by the Technical Sub-Committee. A summary report of the work of the latter is appended hereto. A major consideration of that Sub-Committee had been a report on "The Future of Harvesting", and the parent Committee endorsed and acted upon its principal recommendations. A submission on Investment Grants was made to the Minister through the Forestry Commission and is under consideration, and procedures were formulated for improved statistical information concerning the yield and probable cut from private woodlands.

### **Annual Progress Report of the Technical Sub-Committee of the Home Grown Timber Advisory Committee for the Year ended 31st March 1977**

#### *Working Party on the Future of Harvesting*

1 The Working Party report, which was presented in 1975, was reconsidered in the light of written submissions by the Growers' and Home Timber Merchants' Associations, and revised recommendations were submitted to the Home Grown Timber Advisory Committee in January 1977.

### *Working Party on Sawmilling Research*

2 This Working Party, which reported in 1974, was reconvened for a single meeting in January 1977 to consider progress on its recommendations. Some changes of emphasis were proposed.

### *Working Party on Harvesting Machinery*

3 Action was taken on the recommendation of this Working Party, which reported in 1972, that there should be closer co-operation in harvesting research between Britain and Norway. Accordingly a party of four Norwegian experts under the leadership of Professor I. Samset visited Scotland and northern England in September 1976.

### *Residues*

4 Reports were considered on two complementary symposia held under the auspices of the UN Economic Commission for Europe. The first was held in Finland on the subject of "Harvesting a Larger Part of the Forest Biomass"; the report incorporated experience on chipping in the forest in the Federal German Republic. The second, on "Extending the Use of Wood Residues", took place in Bucharest three months later.

5 Papers were discussed on the use of wood residues for steam raising, cement bonded chipboards and the recycling of wood from pallets.

6 It was noted that one of the largest companies in Britain had started to retail pulverised bark for horticultural use, and that a new manufacturing process had been developed for the production of bark/cement building blocks which have good thermal insulation properties.

### *Safety*

7 The Committee recorded its pleasure that a satisfactory resolution had been found to the difficulties resulting from regulations requiring the use of sound-deadened cabs on tractors.

### *Utilisation*

8 A paper reviewing the various types of grading machine for sawn softwood was considered together with span tables for the M75 grade Sitka spruce published by the Building Research Establishment. The span tables have now facilitated the use of Sitka spruce for structural purposes under the 1975 Amendment to the Building Regulations, and a subsequent amendment has been issued to this effect.

9 Concern was expressed at the possible implications of a proposal to introduce a lower limit on the density of structural timbers with a view to assigning rates of charring, after 30 minutes exposure to high temperature, within the context of a draft Code of Practice dealing with the fire resistance of timber structures.

### *Research*

10 The joint Building Research Establishment/Forestry Commission programme of research was reviewed, and suggestions on the proposals were conveyed to the Directors involved.

### *Harvesting Operations*

11 Trials with the Timberjack Harvester, the Ösa 770 Grabsaw, the Segem delimber, and the Bray PS 5000 Front End Loader were monitored. The Forestry Commission Work Study Branch's continuing review of chainsaws, and recent developments in low grade roads for forwarders were noted.

### *Forest Management Matters*

12 The Work Study Branch presented a situation report which covered developments in chemical and mechanical weeding, rough terrain, ploughing tractors, scrub clearance, and the maintenance of drains. The possible use of remote-controlled aircraft for the application of fertilisers or herbicides was given special attention.

### *Dissemination of Information*

13 Three Technical Notes dealing with a tree-length harvester, a forwarder and a tractor-mounted weeding flail were published in "Forestry and British Timber".

14 "Conifer Bark: Its Properties and Uses" (Forest Record 110) and a coloured leaflet "Some Uses for Wood Residues", both of which were sponsored by the Sub-Committee, were published during the year.



# Appendix III

## Forestry Training Council

### Annual Report for the year ended 31st March 1977

This was the fifth full year of the Council's work. Meetings were held at the headquarters of the Forestry Commission in Edinburgh on 7 October 1976 and 3 March 1977 and at the Forestry Commission Management Training Centre, Coleford, Gloucestershire on 3 June 1976. There were two changes in membership. Mr D. Brent replaced Mr W. E. Matthews as the representative of the Arboricultural Association and Mr R. Naylor took the place of Mr A. W. M. Heggie as assessor for the Scottish Education Department.

Statistics were assembled on the quantity of training activity during 1975-76 and 1976-77. The number of courses leading to *nationally* recognised craft qualifications was 13 and total attendance rose from 161 to 198 (Table 1). The number of courses leading to *nationally* recognised supervisory and managerial qualifications was three and total attendance on these rose from 94 to 100 (Table 1).

**Table 1**  
*Attendance on Courses for Recognised Craft, Supervisory and  
Managerial Qualifications in 1975-76 and 1976-77*

Courses	Grade and Duration	1975-76		1976-77	
		Number of Courses	Number of Students	Number of Courses	Number of Students
City and Guilds 012 Stage 1	Craft (young workers) Day and block release	7	100	9	150
General Forestry Craft and Education	Craft (young workers) 2-year residential ..	1	7	1	7
*RFS Woodman's Certificate	Craft (adult workers) Block release .. ..	1	20	—	—
City and Guilds 012 Stage 2	Craft (adult workers) Block release .. ..	2	26	2	37
Forest Nursery Course	Craft Day and block release ..	1	8	1	4
<b>Totals for craft courses</b>	.. .. .	<b>12</b>	<b>161</b>	<b>13</b>	<b>198</b>
Ordinary National Diploma	Supervisory 3-year sandwich .. ..	1	68	1	79
*RFS Foresters Certificate	Supervisory Block release	1	9	1	13
City and Guilds 012 Stage 3a	Supervisory Block release	1	12	—	—
National Diploma in Forestry	Managerial Residential	1	5	1	8
<b>Totals for Supervisory and Managerial Courses</b>	..	<b>4</b>	<b>94</b>	<b>3</b>	<b>100</b>

The Scottish Forestry Training Group and the Timber Growers' Organisation (in association with the Royal Forestry Society of England, Wales and Northern Ireland) continued to arrange short courses for the private sector and the Forestry Commission again provided short courses for their work force. The total number of trainee course days for forest workers fell from 9,508 in 1975-76 to 9,175 in 1976-77 (Table 2—p. 38). Attendance of forest workers in the private sector rose for the fifth consecutive year.

\*Royal Forestry Society of England, Wales and Northern Ireland

The total number of trainee course days for supervisory and managerial staff rose slightly from 4,318 in 1975-76 to 4,356 in 1976-77 (Table 2). The courses and instructors for the private sector were provided by the Agricultural Training Board, Ashington Technical College, Cumbria College of Agriculture and Forestry, the Forest Industry Centre at Inverness, the Forestry Commission, Fountain Forestry Ltd, Merrist Wood Agricultural College, the Ordnance Survey Department, Scottish Woodland Owners Association (Commercial) Ltd, Tilhill Forestry Ltd and the West of Scotland Agricultural College. In addition the Furniture and Timber Industry Training Board provided short courses for people in the employment of companies within the scope of that Board.

**Table 2**  
*Attendance on Short Courses for Forest Workers, Supervisors and Managers during 1975-76 and 1976-77*

Level	Source of Participants	1975-76 Trainee Course Days	1976-77 Trainee Course Days
Craft	Private Forestry . . . .	1,681	2,073
	Forestry Commission . . . .	7,827	7,102
	Totals . . . . .	9,508	9,175
Supervisory and Managerial	Private Forestry . . . .	1,434	1,361
	Forestry Commission . . . .	2,884	2,995
	Totals . . . . .	4,318	4,356

As in earlier years the content of short courses for forest workers took account of the grade and knowledge of the participants and the regional variation in the industry, but the most numerous on the establishment and tending side dealt with high tensile spring steel fencing and the control of weeds by chemical and mechanical means. On the production and marketing side, marking and measuring thinnings, use and maintenance of chainsaws, extraction by winch, skidder and forwarder, rack lay-out, use and maintenance of tractors and mechanical loading all received attention. Courses for supervisors and managers in the private sector during 1976-77 dealt with harvesting, job planning and costing, terrain classification, surveying, pest control, legislation and use of explosives. Health and safety at work continued to be the subject of many short courses for forest workers, supervisors and managers.

The Scottish Forestry Training Group, under the guidance of Mr Nelson Steward the Group Training Development Manager, made good progress and at the end of March 1977 there were 247 trainees at 60 registered training units. The Group could also call on 83 registered instructors. In March 1977 the Forestry Training Council approved proposals submitted by the Timber Growers' Organisation for a Forestry Training Group to serve the private sector of forestry in England and Wales. Mr D. G. Whieldon of Fountain Forestry Ltd was appointed Group Training Development Manager, and the Forestry Training Council's Management Committee now supervises the work of the two forestry training groups.

The Training Services Agency provided grant aid under their Special Measures Scheme for training certain additional harvesting workers and for upgrading the skills of existing forest workers who faced redundancy but were willing to be trained in harvesting skills. The Scottish Forestry Training Group also placed on private estates unemployed young people between 16 and 18 years of age under the Work Experience Programme of the Manpower Services Commission. In addition, an introductory course was held on the Darnaway Estate, near Forres in Morayshire, to enable 22 young people to make a considered judgment about their suitability for a career in forestry.

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 the Grant Award Committee under the Chairmanship of Professor C. J. Taylor made 10 awards.

A Working Group was formed under the Chairmanship of Professor Taylor to examine forestry qualifications below the level of University degrees and to hold discussions on behalf of the Forestry Training Council with the Technician Education Council (TEC) and Scottish Technical Education Council (SCOTEC). A second Working Group was formed to examine and make recommendations to the Council on the grading of craftsmen and others in forestry, coupled with arrangements for proficiency testing. The chairman is Mr P. J. D. Donnelly.

The Forestry Training Council continued to work closely with the City and Guilds of London Institute, the National Examination Board of Supervisory Studies (NEBSS), the Training Services Agency and the Forestry Safety Council. Mr A. G. Pyman represented the Council on the National Co-ordinating Committee for Careers Information in Agriculture and Associated Industries. 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 and the private sector of forestry. The Council also acknowledges with thanks the help given by the Industrial Training Boards 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 31 March 1977

### *Chairman*

Professor J. D. Matthews

### *Employer Members*

Mr A. F. F. Williamson	}	Scottish Woodland Owners Association Ltd.
Mr R. G. Sangster		
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 I. Edwards		
Mr J. H. Hose	}	National Union of Agricultural and Allied Workers
Mr F. H. Peachey		
Mr R. Pierson		
Mr R. G. Braine		

### *Education and Training Members*

Mr R. Macdonald	}	Forestry education, Scotland
Mr A. P. B. Hamilton		
Mr. W. Steele	}	Forestry education, England and Wales
Mr A. G. Pyman		
Mr J. Saddler		Furniture and Timber Industry Training Board

### *Forestry Society, etc., Members*

Professor C. J. Taylor	Institute of Foresters of Great Britain
Mr D. K. Fraser	Royal Scottish Forestry Society
Mr R. Rowland	Royal Forestry Society of England, Wales and Northern Ireland
Mr D. Brent	Arboricultural Association

### *Assessors*

Mr R. H. Nelson	}	Scottish Education Department
Mr R. Naylor		
Dr T. W. Martin	}	Department of Education and Science
Mr G. Dickson		
Mr P. R. Wells		

### *Secretary*

Mr J. McRitchie                      Forestry Commission

### *Grant Award Committee*

Professor C. J. Taylor (*Chairman*)  
Mr F. H. Peachey  
Mr W. Steele  
Mr R. G. Sangster  
Mr J. McRitchie

### *Working Group on Forestry Qualifications*

Professor C. J. Taylor (*Chairman*)  
Mr J. F. Goodwin  
Mr R. Nelson

### *Working Group on Grading of Craftsmen and Others in Forestry*

Mr P. J. D. Donnelly (*Chairman*)  
Mr J. F. Goodwin  
Mr R. G. Sangster  
Mr J. H. Hose  
Mr R. G. Braine

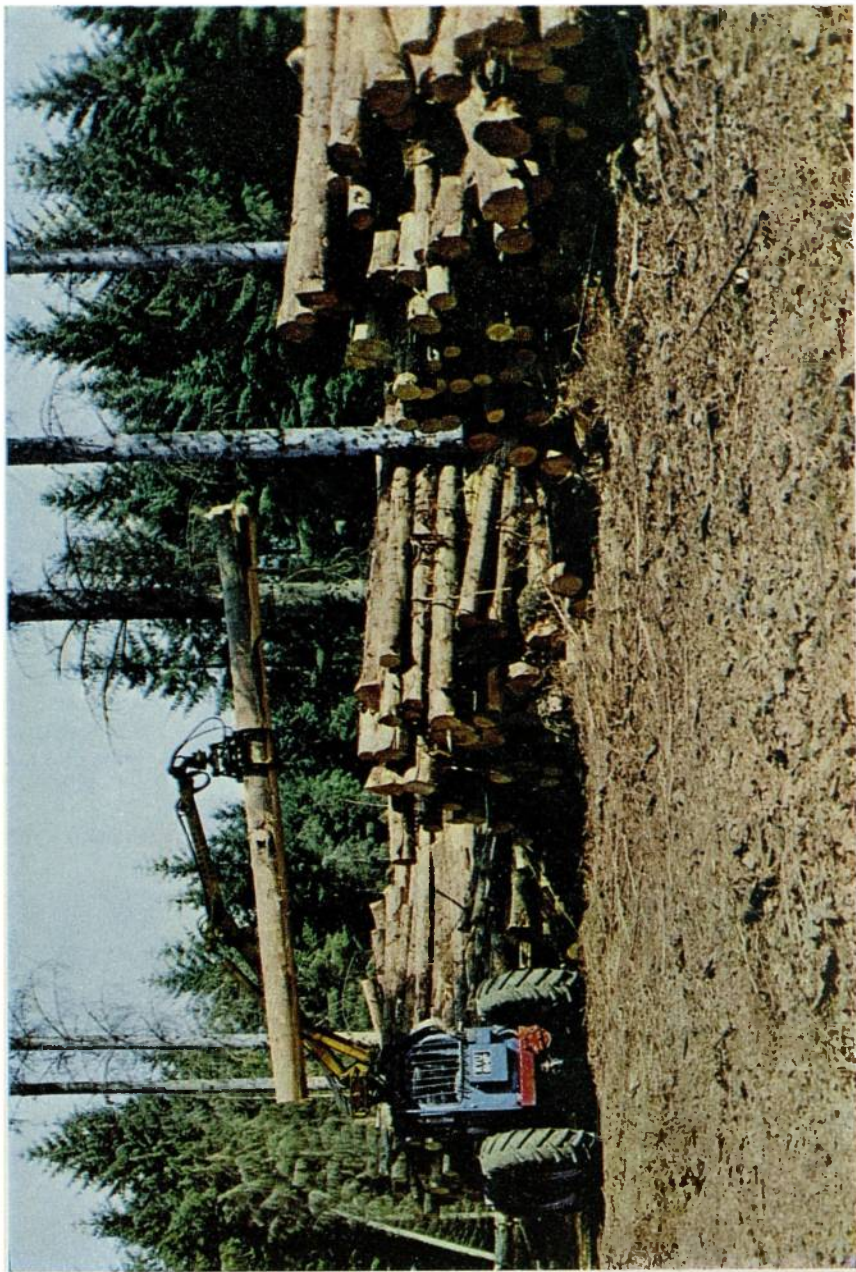


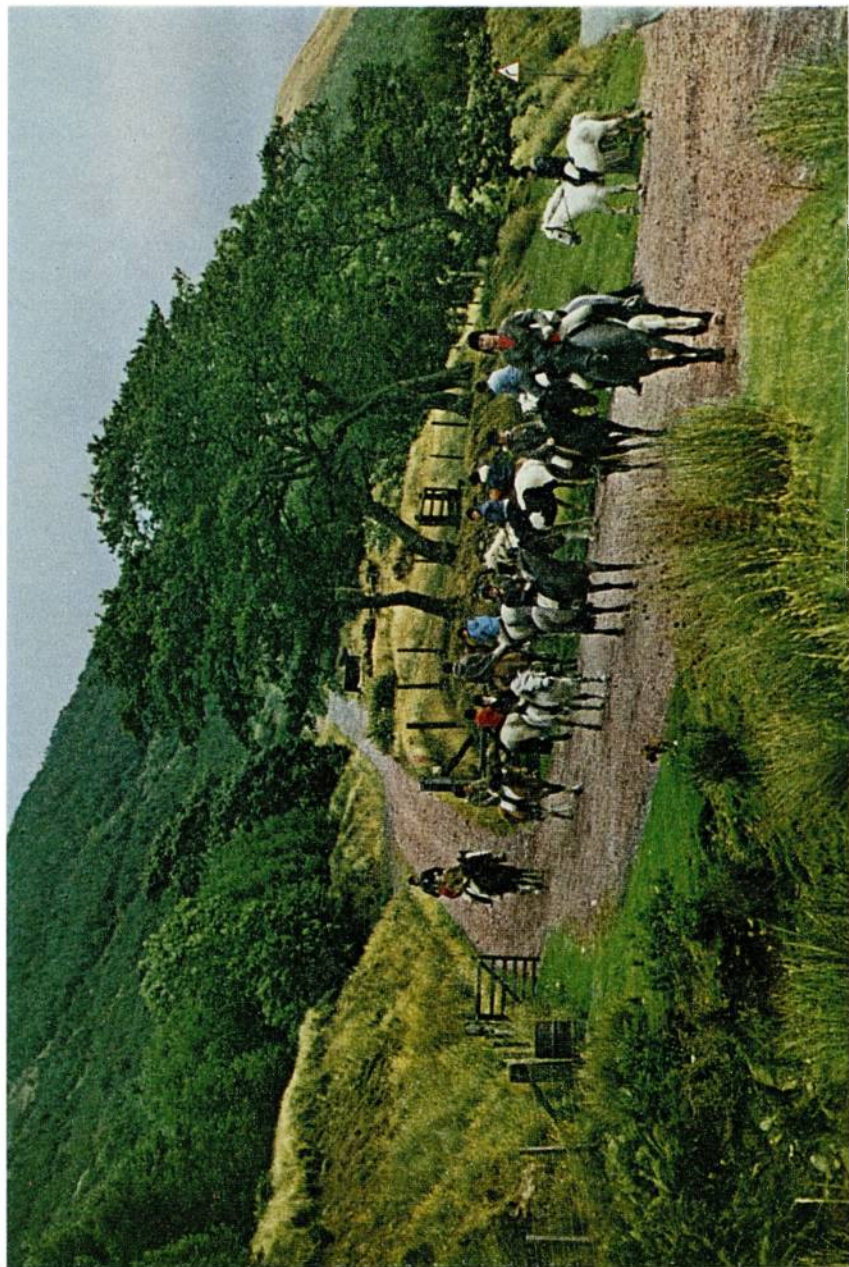
### Forest Road Construction

**Plate 3** (top) Clearing a new road line at Loch Ard Forest.

**Plate 4** A well integrated operation showing the construction of a loading bay at Glentress Forest. The bulldozer operator is spreading roadstone tipped from a lorry.

**Plate 5** Sorting and stacking sawlogs at Solway Forest using a hydraulically operated grapple fitted to a 4 × 4 wheeled tractor.





**Plate 6** Pony trekking takes place at over 50 forests. Here is a group leaving Rhondda Forest.

**Plate 7** Aerial photography is used for forestry inventory work. This scene at Clocaenog Forest also highlights the pattern of land use and sheltered hill farms.





# Appendix IV

## Forestry Safety Council

### Annual Report for the year ended 31st March 1977

The Council, which has now completed its third full year of work, met three times during the year. Meetings were held in Edinburgh in June 1976 and March 1977 and in Bristol in September 1976, the latter being arranged to coincide with a forestry machinery demonstration at Longleat organised by the Association of Professional Foresters. The Forestry Safety Council occupied a stand at the demonstration and the many enquiries received were dealt with by members of the Council who manned the stand on a roster basis.

The physical transfer to the Health and Safety Executive of the Agricultural Safety Inspectorate was completed on 1 March 1977 and representations have been made by the Council to ensure that future recruitment will provide for an appropriate proportion of inspectors with forestry qualifications and background.

Following advice received from the Health and Safety Executive, it became clear that the codes of practice being produced by the Council did not meet the rather precise criteria laid down for adoption as "approved" codes under the provisions of the Health and Safety at Work, etc. Act. Since the Council did not wish to depart from its policy of keeping its safety publications as simple as possible so that they could be easily read and understood by operators, it was decided to adopt the new title of "Forest Industry Safety Guides". While this means that they will not have the same legal status as an approved code of practice, it is felt that this will not detract in any way from their practical value.

Forest Industry Safety Guides have now been published on Noise and Hearing Conservation, Clearing Saws and Ultra Low Volume Spraying. At the close of the year under report, the first five parts of the Chainsaw Guide were expected from the printers, a further five guides were undergoing the final validation procedure and seven more were in various stages of preparation. A decision has been taken to issue Safety Guides free of charge in future, and this should facilitate their ready availability to all levels throughout the industry.

The Agriculture (Tractor Cabs) Regulations 1974 require that all tractors first sold into agriculture (including forestry) on or after 1 June 1976 must be fitted with a "Quiet" cab which will reduce noise at the driver's ear to 90dB(A) or less. This created a real difficulty for users of certain types of timber harvesting machinery and, largely as a result of representations made by and through the Forestry Safety Council, exemption from the noise requirements can now be applied for in respect of forestry tractors which have been modified for use in conjunction with heavy duty forestry equipment. Such applications will be considered where it can be shown that it is not reasonably practicable to fit an approved "Quiet" cab, provided alternative provision is made to protect the driver from hazardous noise levels and an otherwise approved safety cab is fitted.

The Regulations relating to the appointment of safety representatives and safety committees were laid before Parliament on 28 March 1977 and will come into force on 1 October 1978. Employers and Trade Unions can, nevertheless, by mutual agreement, implement the provisions of the Regulations without waiting for the operative date, and it is the Council's policy to encourage such arrangements.

Efforts are continuing to collect information which will enable useful statistics to be prepared in respect of accidents in the private sector of the industry.

Advice has been obtained from the Forestry Commission's Medical Adviser on the content of a first-aid kit suitable for the forestry industry and a Technical Note will be issued in due course. It is hoped to arrange for manufacturers to market the kit as a "Forest Industry Approved First-Aid Kit" bearing the FSC symbol.

## **Members of the Forestry Safety Council at 31 March 1977**

Col. D. A. Campbell	Chairman
Mr D. G. Whieldon	Timber Growers' Organisation Ltd.
Mr K. J. Ramsay	Scottish Woodland Owners Association Ltd.
Mr D. J. Cooper	Home Timber Merchants' Association, England and Wales
Mr J. E. McDonald	Home Timber Merchants' Association, 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 D. C. Fisher	Secretary

# Appendix V

## Forestry Taxation and Grants:

### Announcement made by the Minister of State, Treasury, on 30th March 1977

Mr Denzil Davies, Minister of State, Treasury, made the following announcement in a written answer to a Parliamentary Question on 30 March 1977:

In accordance with the Government's aim of encouraging private forestry to play an appropriate part in the rural economy, in harmony with the needs of agriculture and the environment, the following measures will be introduced:

1 The special Capital Transfer Tax relief for woodlands under Schedule 9 of the Finance Act 1975 will no longer be conditional on the woodland being the subject of a Forestry Commission dedication scheme. The necessary legislation will be introduced in the Finance Bill.

2 A number of changes will be made in the grants arrangements. The table which follows gives the details of these changes. They include increases in the existing grant levels under both the Basis II and Basis III Dedication Schemes. The Basis III grants are to be raised more substantially, however, as an acknowledgement of the additional commitment into which woodland owners must enter to meet the environmental objectives of that scheme. Management grants, which already form part of the Basis II arrangements, will also be introduced under Basis III.

3 A small woods planting scheme will be introduced which will give particular emphasis to the planting of broadleaves in the lowlands. This new scheme will cover approved planting from 0.25 up to 10 hectares, which will now be the lower limit for Basis III. Consultations between the Forestry Commission, local authorities and other bodies over woodland owners' plans under dedication schemes will continue to take place in accordance with the procedures outlined in the statement made by my Rt Hon Friend the Minister of Agriculture on 5 July 1974 (Vol 876, c288-90) but discussions will be held about such consultations on applications received under the new small woods scheme.

4 The Forestry Commission has been asked to give wider publicity to its readiness to consider Basis III applications in respect of existing woodlands – and especially broadleaved woodlands – for rehabilitation by selective planting and natural regeneration aimed at bringing them into a productive state, without recourse to complete clearance of the woodland.

5 Approved planting of Caledonian Pine of local origin in special areas to be agreed with the Nature Conservancy Council should in future attract the same planting and management grants as broadleaves under Basis III.

6 The grants review procedure will in future be formalised. The first review of the new grants will take place in October 1980.

Remaining details of the new arrangements will be published by the Forestry Commission after consultation with the Forestry Committee of Great Britain and with the Local Authority Associations.

The additional cost of these measures, which is estimated to total £350,000 in 1977–78 rising to £1.8 million in 1980–81, will be contained within the existing public expenditure levels.

The CTT change will apply directly in Northern Ireland. The grant system there, however, is different and a review of the existing arrangements will be undertaken.

These measures should provide a suitable framework within which the industry can operate and we shall want to see how they work out before contemplating any further changes or any further review of policy. Indeed, in an industry with the long time horizons of forestry, the

prospect of further change can only be unsettling and I hope that the arrangements I have announced will restore confidence and provide a durable basis for the operation of the industry for many years to come.

### Changes in Grant-Aid for Forestry

The following changes in grant-aid will be introduced by the Forestry Commission with effect from 1 October 1977.

	Existing grant per hectare	New grant per hectare
<i>Dedication Basis II</i>		
Planting grant	£57·27	£75
Management grant (paid annually)	first 40 ha = £2·63 second 40 ha = £1·77 remainder = £1·09 (mean rate = £1·61)	Apportionment to be decided, based on a mean rate of £2·11 per annum
<i>Dedication Basis III</i>		
	(areas of one hectare or more)	(areas of ten hectares or more)
Planting grant		
(a) Conifers	£45	£100
(b) Broadleaves	£170	£225
(c) Caledonian Pine in approved areas	£45	£225
Management grant for Conifers under 25 years of age and broadleaves (and approved areas of Caledonian Pine) under 50 years of age.	—	£3 per annum payable quinquennially in arrears*
<i>Small Woods Planting Schemes</i>		
Areas between 0·25 and 3 hectares	—	£300
Areas between 3 and 10 hectares	—	£250
75% of the relevant small woods planting grant will be payable on completion of satisfactory planting and the remainder five years later subject to the Forestry Commission being satisfied that the trees are properly established.		

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\*Since the announcement it has been agreed that Basis III management grants should be paid annually in arrears, as for Basis II.

# Appendix VI

## New Publications

Fourteen new priced publications were issued through Her Majesty's Stationery Office.

### *Reports*

Fifty-sixth Annual Report of the Forestry Commissioners, 1975-76 (£2.00).  
Report on Forest Research for year ended 31 March 1976 (£1.90).

### *Bulletins*

No. 55. Aspects of Thinning, edited by G. J. Hamilton (£2.50).  
No. 56. Evaluation of the Contribution of Forestry to Economic Development, edited by A. J. Grayson (£3.00).

### *Booklet*

No. 43. Forest Road Planning, by A. A. Rowan (75p).

### *Leaflets*

No. 64. Control of Heather by 2,4-D, by J. M. MacKenzie, J. H. Thomson and K. E. Wallis (70p).  
No. 65. Group Dying of Conifers, by D. H. Phillips and C. W. T. Young (30p).  
No. 66. Guidelines to Forest Weed Control, by R. E. Crowther (35p).  
No. 67. Rabbit Management in Woodlands, by H. W. Pepper (50p).  
No. 68. Badger Gates, by J. J. Rowe (15p).

### *Forest Records*

No. 106. Mushrooms and Toadstools of Broadleaved Forests, by R. Watling (£1.00).  
No. 108. Tests on Round Timber Fence Posts, by J. C. Clarke and R. C. Boswell (£1.70).  
No. 109. The Capercaillie, by C. E. Palmar (50p).  
No. 110. Conifer Bark: Its Properties and Uses, by J. R. Aaron (75p).

# **Appendix VII**

## **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 1977*

<i>Previous Year</i>		<i>Receipts</i>	<i>£</i>
	<i>£</i>		
26,900,000	Grant-in-Aid . . . . .		27,000,000
17,647,028	Sales of Timber . . . . .		22,712,998
2,133,602	Disposal of surplus assets . . . . .		1,713,425
4,171,431	Miscellaneous . . . . .		5,212,895
			<hr/>
50,852,061			56,639,318
(171,769)	Increase in working balance . . . . .		707,309
			<hr/>
£51,023,830			£55,932,009
			<hr/>
		<i>Payments</i>	
27,429,080	Salaries, wages and related expenses . . . . .		29,965,767
2,906,183	Pensions and gratuities to retired staff . . . . .		3,545,787
11,573,678	Materials, contract services and general expenses . . . . .		12,625,803
	Acquisition of land, buildings and plantations, and construction of buildings . . . . .		4,211,260
3,783,173	Machinery and equipment . . . . .		3,377,053
3,301,185	Grants to private woodland owners (£1,317,932) universities, institutions etc . . . . .		1,377,555
1,565,683	Remittances of VAT to Customs and Excise . . . . .		828,784
464,848			<hr/>
£51,023,830			£55,932,009
			<hr/>

## 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 1976-77 was £30,142,000 of which £27,000,000 was drawn into the Forestry Fund. The remaining balance of £3,142,000 will be surrendered to the Consolidated Fund.

4 Receipts from the sale of timber rose by £5,066,000 as a result of higher prices and a programme increase largely due to working windblown timber.

5 Receipts from the disposal of surplus assets fell by £420,000 compared with 1975-76 but the previous year included several large exceptional sales.

6 Miscellaneous receipts rose by £1,041,000 due to increases in charges for campsites and holiday houses (£302,000), estate income from higher rents and charges (£176,000), forest management income (£135,000) principally due to improvement in prices obtained for venison and agency income (£434,000) resulting from the recovery of higher costs, a larger programme of work on trunk road and motorway planting and the Kielder reservoir project for the Northumberland Water Authority.

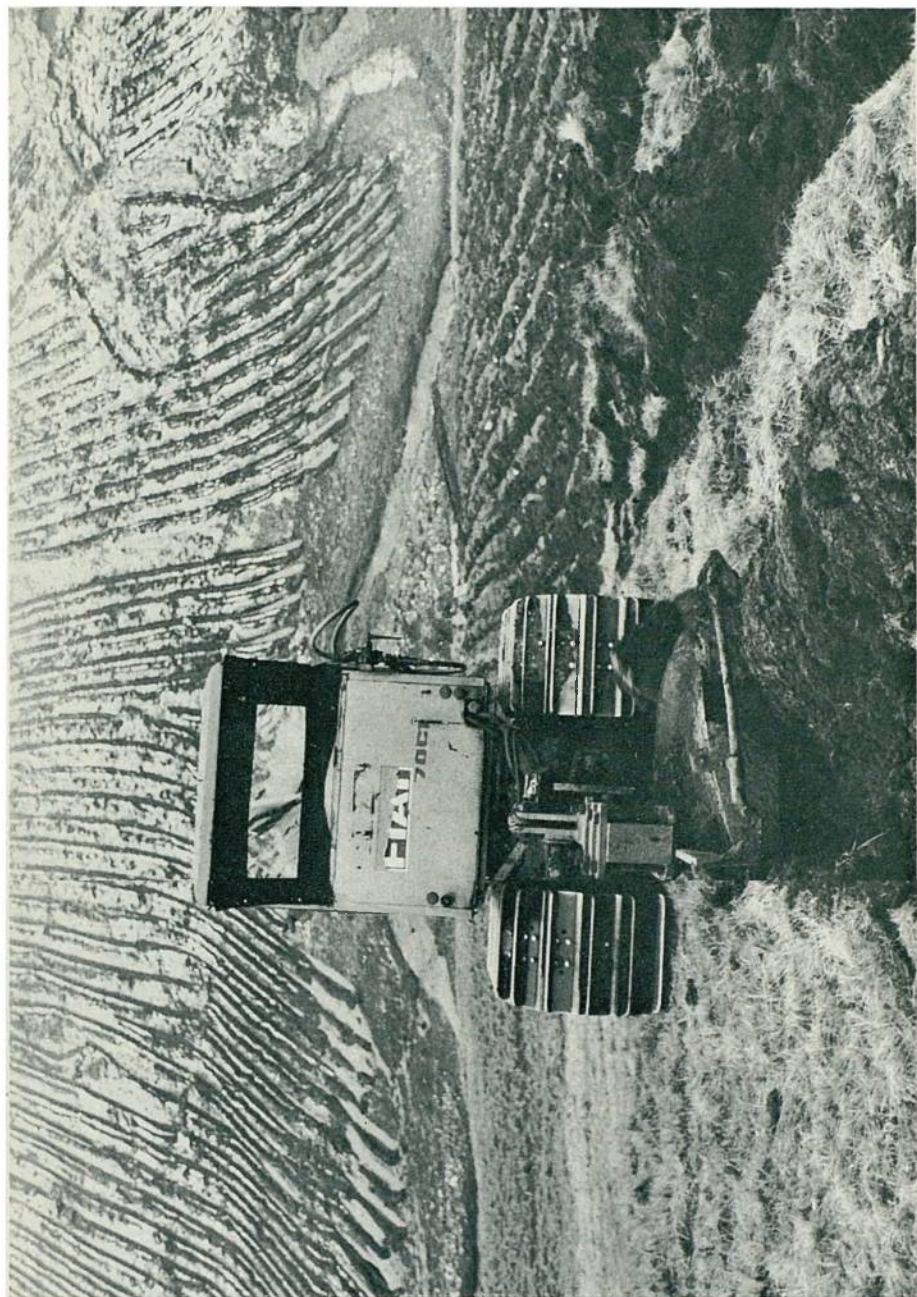
*Payments*

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

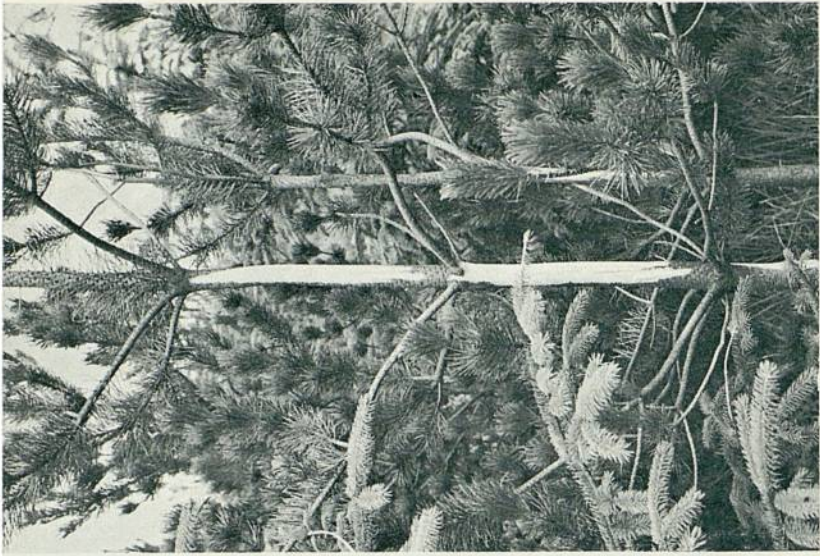
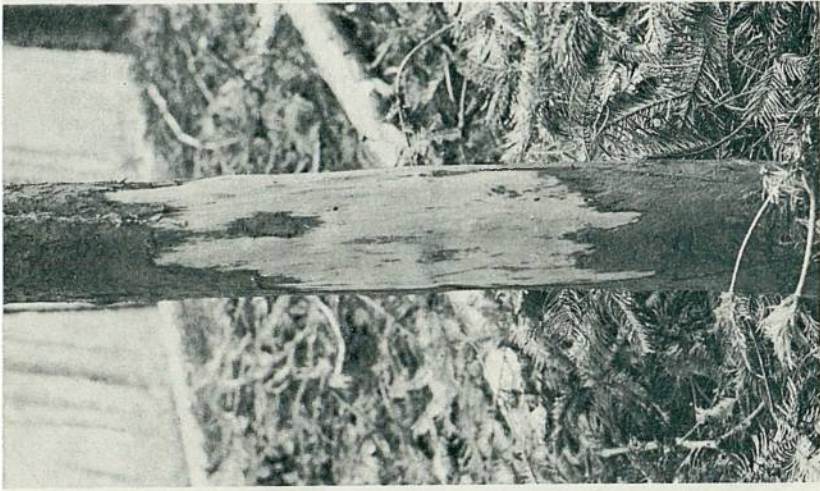
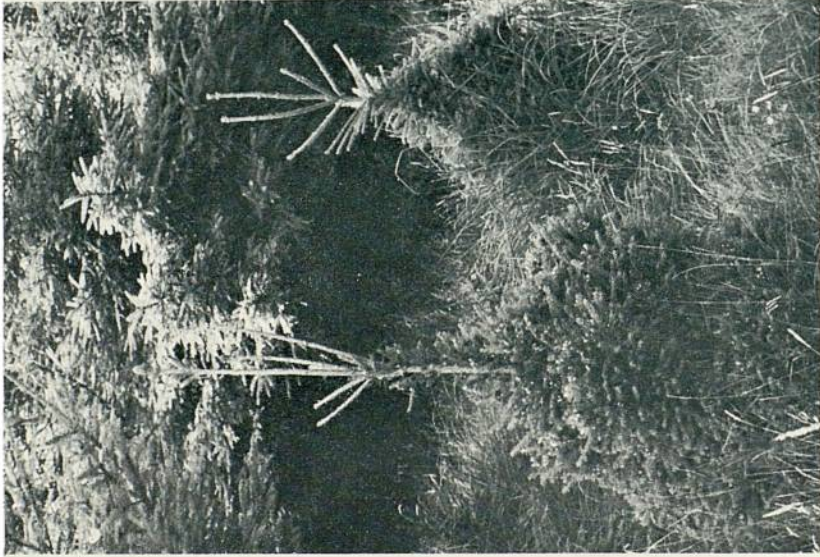
8 Payments of pensions and gratuities to retired staff rose by £640,000 due to the award of higher superannuation benefits and an increase in the number of pensioners.

- 9 The cost of materials, contract services and general expenses rose by 9% due principally to the continuing impact of inflation on costs.
- 10 The cost of Acquisitions and Construction of Buildings rose by £428,000. The area of plantable land acquired was less than the previous year (17,700 hectares against 19,400 hectares) but the average cost per hectare rose from £131 in 1975-76 to £149 in the current year.
- 11 The continued decline in the level of private planting is the principal reason for the reduction of £188,000 in the total amount of grants paid. Claims relating to some 9,200 hectares were paid in 1976-77 compared with some 12,200 hectares in 1975-76.
- 12 Remittances of net VAT to Customs and Excise increased by £364,000. Greater sales resulted in a higher level of output tax which more than offset the rise in recoverable input tax from higher costs.





**Plate 8** Ploughing on steep ground at Kyle Forest using a single mould-board tine plough to give deep cultivation.



**Plate 9** Tree damage by deer. (left) A respite gives some hope for these Norway spruce heavily browsed by roe deer at Dundough Forest. (centre) Stripping damage to Silver fir in Quantock Forest. (right) Stripping damage to younger Lodgepole pine at Clatteringshaws Forest.

**Table 2**

**EXPENDITURE ON FORESTRY AUTHORITY SERVICES**

*in the year ended 31 March 1977*

<i>Previous Year</i>		<i>£</i>
	<i>Services to Private Woodland Owners</i>	
	<b>Grants under Dedication Schemes:</b>	
16,337	Basis I .. .. .	21,108
407,675	Basis II: Planting Grants .. .. .	237,525
731,031	Management Grants .. .. .	695,478
201,894	Basis III: Basic Grant .. .. .	216,115
55,648	Hardwood Supplement .. .. .	63,458
50,338	Approved Woodlands Planting Grants .. .. .	27,396
15,931	Interim Planting Grants .. .. .	1,488
19,819	Small Woods and Scrub Clearance Planting Grants .. .. .	13,926
24,621	Miscellaneous .. .. .	26,209
890,553	Overhead Expenses (including Estate expenses) .. .. .	954,203*
<hr/>		
2,413,847		2,256,906
47,410	Less Net Miscellaneous income .. .. .	46,227
<hr/>		
£2,366,437		£2,210,679
<hr/>		
	<i>Special Services</i>	
233,002	Licensing of Felling .. .. .	224,968*
194,818	Information and Shows .. .. .	220,581*
42,490	Plant Health (including £54,233* Overhead Expenses) .. .. .	58,883
387,412	Miscellaneous Overhead expenses .. .. .	484,170*
<hr/>		
£857,722		£988,602
<hr/>		
	<i>Research and Development</i>	
831,227	Silviculture including Nursery Work .. .. .	847,061
182,189	Genetics .. .. .	250,339
55,559	Physiology .. .. .	64,124
21,823	Seed Research .. .. .	20,289
104,983	Site Studies .. .. .	119,958
300,059	Protection .. .. .	342,972
132,194	Statistics .. .. .	160,728
226,207	Communications .. .. .	179,842
114,639	Westonbirt and Bedgebury Arboreta .. .. .	108,657
30,348	Experimental Workshops .. .. .	40,638
71,097	Grants to Institutions .. .. .	67,165
323,379	Overhead Expenses (Headquarters) .. .. .	304,027*
<hr/>		
£2,393,704		£2,505,800
<hr/>		
5,617,863	Net total expenditure in year .. .. .	5,705,081
1,427	Notional Sickness and injury benefit .. .. .	4,314
<hr/>		
£5,619,290		£5,709,395
<hr/>		
	<i>Plus Net Additions in Assets</i>	<i>£</i>
(50,012)	Current .. .. .	60
28,493	Fixed .. .. .	28,735
(21,519)		28,795
<hr/>		
£5,597,771	Amount of Grant-in-Aid appropriated for the Forestry Authority (Note 2 in Forestry Enterprise Accounts, page 88)	£5,738,190
<hr/>		

\*Statement 5 of Forestry Enterprise Accounts, page 87, £2,242,182

*NOTES ON TABLE 2*

1 The Forestry Authority share of the Grant-in-Aid amounted to £5.738 million compared with £5.598 million last year

*Services to Private Woodland Owners*

2 Total net expenditure fell by £156,000 with a reduction of £222,000 in grants due principally to a lower level of planting under the Basis II Dedication Scheme, offset by a small increase in overheads of £64,000.

*Special Services*

3 Rises in staff costs mainly account for the overall increase of £131,000 in Special Services.

*Research*

4 The net cost of Research and Development in the year increased by £112,000 (5%) mainly due to rises in staff costs.

# Appendix VIII

## 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

## PROGRESS OF THE DEDICATION SCHEMES FOR PRIVATE ESTATES IN THE YEAR ENDED 31ST MARCH 1977

**Table 1**

	Great Britain		England		Scotland		Wales	
	Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)
<i>Basis I and II</i> Dedications in existence at the start of the year* .. .. .	3,973	484,603	2,402	212,588	1,078	241,235	493	30,780
<i>Basis I and II</i> Dedications completed during the year** ..	45	—322	22	—298	12	—302	11	278
Total .. .. .	4,018	484,281	2,424	212,290	1,090	240,933	504	31,058
<i>Basis I and II</i> Dedications in preparation at the end of the year .. .. .	44	2,117	3	159	35	1,433	6	525
<i>Basis III</i> Dedications in preparation at the end of the year .. .. .	949	66,226	443	8,273	421	53,955	85	3,998

\* A dedication exists at the stage when the Deed of Covenant/Agreement has been completed.  
\*\* The areas shown take account of land released from dedication or transferred to Basis III.

## PROGRESS OF THE APPROVED WOODLANDS SCHEME FOR PRIVATE ESTATES IN THE YEAR ENDED 31ST MARCH 1977

**Table 2**

	Great Britain		England		Scotland		Wales	
	Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)
Plans of Operations in existence at the start of the year of .. .. .	567	50,426	443	34,662	99	13,750	25	2,014
Terminations during the year .. .. .	97	2,329	77	1,485	14	395	6	449
Plans remaining ..	470	48,097	366	33,177	85	13,355	19	1,565

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 plan of operations expired.

AREA OF PLANTING BY PRIVATE WOODLAND OWNERS FOR WHICH GRANTS  
WERE PAID IN THE YEAR ENDED 31ST MARCH 1977

Hectares

**Table 3**

Country	Total			In Dedicated Woodlands Basis I and II			In Dedicated Woodlands Basis III			In Approved Woodlands			With Interim Planting Grants		
	All Planting	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking	Total	New Planting	Re- stocking
<b>GREAT BRITAIN</b>															
Total .. ..	9,156	7,232	1,924	4,120	2,584	1,536	4,840	4,549	291	186	89	97	10	10	—
Conifer .. ..	8,305	6,893	1,412	3,763	2,518	1,245	4,389	4,282	107	146	86	60	7	7	—
Broadleaved..	851	339	512	357	66	291	451	267	184	40	3	37	3	3	—
<b>ENGLAND</b>															
Total .. ..	1,931	775	1,156	1,196	353	843	636	409	227	97	11	86	2	2	—
Conifer .. ..	1,249	516	733	898	300	598	286	205	81	63	9	54	2	2	—
Broadleaved..	682	259	423	298	53	245	350	204	146	34	2	32	—	—	—
<b>SCOTLAND</b>															
Total .. ..	6,377	5,734	643	2,718	2,140	578	3,578	3,516	62	81	78	3	—	—	—
Conifer .. ..	6,255	5,681	574	2,674	2,127	547	3,501	3,477	24	80	77	3	—	—	—
Broadleaved..	122	53	69	44	13	31	77	39	38	1	1	—	—	—	—
<b>WALES</b>															
Total .. ..	848	723	125	206	91	115	626	624	2	8	—	8	8	8	—
Conifer .. ..	801	696	105	191	91	100	602	600	2	3	—	3	5	5	—
Broadleaved..	47	27	20	15	—	15	24	24	—	5	—	5	3	3	—

In addition it is estimated that 392 hectares were planted without the aid of grants (England 295, Scotland 85, Wales 12).

VOLUME OF TIMBER LICENSED FOR FELLING AND THINNING  
ON PRIVATE ESTATES IN THE YEAR ENDED 31ST MARCH 1977

**Table 4**

	Great Britain	England	Scotland	Wales
Total volume (thousand cubic metres) ..	541	342	177	22
Conifer .. .. .	338	165	160	13
Broadleaved .. .. .	203	177	17	9
Number of licences issued .. .. .	1,744	1,240	399	105

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 1977

**Table 5**

Hectares

	Great Britain	England	Scotland	Wales
Total .. .. .	2,135	1,313	721	101
Conditional licences*	1,529	1,014	444	71
Unconditional licences	606	299	277	30

\* Conditional licences require the restocking of the land concerned.



# Forestry Enterprise

LAND USE  
AT 31ST MARCH 1977

**Table 6**

Thousands of hectares

	Great Britain	England	Scotland	Wales
Total area .. .. .	1,250.3	303.7	785.4	161.2
Forest Land: Total .. .. .	937.7	258.8	538.2	140.7
Under plantations .. .. .	840.9	247.3	459.8	133.8
To be planted .. .. .	96.8	11.5	78.4	6.9
Other Land: Total .. .. .	312.6	44.9	247.2	20.5
Nurseries .. .. .	0.3	0.1	0.2	—
Agricultural and grazing .. .. .	138.8	13.1	113.9	11.8
Forest Workers Holdings .. .. .	4.7	0.7	3.1	0.9
Unplantable and miscellaneous .. .. .	168.8	31.0	130.0	7.8

NET AREA OF FOREST LAND ACQUIRED IN THE YEAR ENDED 31ST MARCH 1977

**Table 7**

Thousands of hectares

	Great Britain	England	Scotland	Wales
Total area .. .. .	16.8	0.4	15.6	0.8
Standing Woods .. .. .	0.3	0.1	0.2	—
Land for new planting .. .. .	16.5	0.3	15.4	0.8

This table represents the area of forest land acquired after deducting disposals.

PLANTING IN THE YEAR ENDED 31ST MARCH 1977

**Table 8**

Hectares

	Total	New planting	Restocking
Great Britain .. .. .	18,703	15,548	3,155
Conifer .. .. .	18,520	15,457	3,063
Broadleaved .. .. .	183	91	92
England .. .. .	2,472	1,302	1,170
Conifer .. .. .	2,345	1,256	1,089
Broadleaved .. .. .	127	46	81
Scotland .. .. .	14,342	13,148	1,194
Conifer .. .. .	14,295	13,108	1,187
Broadleaved .. .. .	47	40	7
Wales .. .. .	1,889	1,098	791
Conifer .. .. .	1,880	1,093	787
Broadleaved .. .. .	9	5	4

PROGRESS OF PLANTING FROM 1ST OCTOBER 1967 TO 31ST MARCH 1977

Table 9

Hectares

Period*	Great Britain	England	Scotland	Wales
1/10/67 to 31/3/69 ..	27,737	6,676	17,477	3,584
1970 .. ..	22,492	4,329	15,585	2,578
1971 .. ..	28,526	5,427	19,751	3,348
1972 .. ..	26,235	4,174	19,642	2,419
1973 .. ..	23,158	3,154	17,764	2,240
1974 .. ..	21,723	2,900	16,644	2,179
1975 .. ..	23,155	2,623	18,471	2,061
1976 .. ..	20,511	2,530	16,374	1,607
1977 .. ..	18,703	2,472	14,342	1,889

\* 1970-1977, year ended 31st March.

AREAS OF PLANTATIONS AND VOLUMES OF TIMBER THINNED  
AND FELLED IN THE YEAR ENDED 31ST MARCH 1977

Table 10

	Felled		Thinned		Total Volume Felled and Thinned (Thousand cubic metres)
	Area (hectares)	Volume (Thousand cubic metres)	Area (hectares)	Volume (Thousand cubic metres)	
Great Britain ..	3,597	1,112	24,373	909	2,021
England, Total ..	1,484	589	13,542	336	925
<i>Conservancy:</i>					
North-West ..	294	180	1,360	85	265
North-East ..	392	88	1,109	55	143
East .. ..	355	217	7,879	61	278
New Forest and South-East ..	161	35	1,646	58	93
South-West and Dean .. ..	282	69	1,548	77	146
Scotland, Total ..	1,163	290	7,657	424	714
<i>Conservancy:</i>					
North .. ..	411	130	1,050	61	191
East .. ..	265	50	2,379	125	175
South .. ..	272	53	2,461	137	190
West .. ..	215	57	1,767	101	158
Wales, Total ..	950	233	3,174	149	382
<i>Conservancy</i>					
North .. ..	519	133	1,412	62	195
South .. ..	431	100	1,762	87	187

SALES OF TIMBER IN THE YEAR ENDED 31ST MARCH 1977

Table 11

Thousand cubic metres

Description	Great Britain	England	Scotland	Wales
Trees sold standing .. .. .	831.0	337.0	302.0	192.0
Converted* .. .. .	998.8	476.8	366.0	156.0
Round timber and saw logs .. .. .	409.4	204.3	141.2	63.9
Telegraph and other selected poles .. .. .	7.0	1.9	4.1	1.0
Mining timber .. .. .	56.4	36.8	0.1	19.5
Posts and stakes .. .. .	21.5	12.9	2.0	6.6
Pulpwood and boardmill material .. .. .	465.5	186.7	215.5	63.3
Firewood .. .. .	10.6	8.4	1.4	0.8
Miscellaneous .. .. .	21.6	20.7	0.4	0.5
Poles sold in length (other than selected) .. .. .	6.8	5.1	1.3	0.4

\* In addition 5.2 thousand cubic metres were converted and used internally for forest and estate purposes (England 2.3, Scotland 1.6, Wales 1.3).

PROPERTIES MANAGED BY THE COMMISSION  
AT 31ST MARCH 1977

Table 12

Number

	Great Britain	England	Scotland	Wales
Forest properties .. .. .	5,556	2,387	2,089	1,080
Foresters houses .. .. .	688	253	306	129
Forest Workers houses .. .. .	1,814	736	894	184
Forest Workers holdings .. .. .	334	92	175	67
Miscellaneous* .. .. .	2,720	1,306	714	700
Other properties† .. .. .	5,966	1,979	2,614	1,373
Farms and other agricultural subjects .. .. .	2,079	564	979	536
Residential and other lettings .. .. .	3,887	1,415	1,635	837

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

† In addition there are 2,453 sporting lettings.

PUBLIC RECREATIONAL FACILITIES  
AT 31ST MARCH 1977

**Table 13**

Number

	Great Britain	England	Scotland	Wales
Camp sites* .. .. .	28	18	9	1
Picnic places .. .. .	426	224	88	114
Forest walks (way marked) .. .. .	358	134	146	78
Forest (nature) trails .. .. .	114	68	22	24
Visitor centres .. .. .	25	12	10	3
Arboreta .. .. .	27	11	5	11
Forest drives .. .. .	6	4	1	1
Forest cabins (and holiday houses) ..	88	33	52	3

- \* In addition to these camp sites, the Commission provides the following:
- i. two informal camping areas in the New Forest;
  - ii. five sites leased to the Caravan Club and two sites to the Camping Club of Great Britain and Northern Ireland;
  - iii. 44 sites set aside for youth camping;
  - iv. facilities for caravan rallies.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—ENGLAND

Table 14

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agricultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
<b>NORTH-WEST ENGLAND CONSERVANCY:</b>							
<b>TOTAL .. .. .</b>	<b>54,027</b>	<b>43,959</b>	<b>2,804</b>	<b>7,264</b>	<b>248</b>	<b>320</b>	<b>265</b>
Arden, Hereford and Worcester, West Midlands, Warwick and Leics. . . . .	1,080	940	128	12	—	3	—
Bagot, Staffs .. .. .	1,026	949	69	8	4	4	—
Blengdale, Cumbria .. .. .	1,255	1,033	60	162	4	—	2
Bowland, Lancs .. .. .	1,836	1,716	14	106	—	—	2
Cannock, Staffs .. .. .	2,696	2,621	10	65	5	4	18
Dalton, Cumbria and Lancs ..	1,654	1,378	5	271	9	—	—
Delamere, Cheshire .. .. .	969	937	—	32	—	10	10
Dunnerdale, Cumbria .. .. .	951	805	22	124	—	—	3
Ennerdale, Cumbria .. .. .	3,762	1,605	169	1,988	32	1	2
Greystoke, Cumbria .. .. .	1,270	1,161	17	92	1	23	5
Grizedale, Cumbria .. .. .	3,503	3,007	36	460	—	1	7
Inglewood, Cumbria .. .. .	995	949	20	26	—	—	1
Kershope, Cumbria .. .. .	5,734	5,261	28	445	—	58	22
Kinver, Staffs .. .. .	299	280	—	19	—	—	—
Launde, Derby, Notts and Leics. . . . .	893	803	85	5	1	—	1
Long, Salop .. .. .	639	593	44	2	—	—	1
Matlock, Derby and Cheshire	3,139	1,653	341	1,145	16	—	—
Mortimer, Salop, Hereford and Worcester .. .. .	4,162	4,011	—	151	—	117	50
Sherwood, Notts .. .. .	6,482	6,076	149	257	8	76	125
Spadeadam, Cumbria .. .. .	6,707	4,090	1,469	1,148	168	—	—
Shropshire Hills, Salop .. .. .	1,299	924	107	268	—	—	—
Swynnerton, Staffs .. .. .	1,019	974	31	14	—	—	1
Thornthwaite, Cumbria .. .. .	2,657	2,193	—	464	—	23	15

Note: Haughmond and Stiperstones amalgamated to form Shropshire Hills.

Table 14—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agricultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
NORTH-EAST ENGLAND CONSERVANCY:							
TOTAL .. .. .	100,382	79,688	5,124	15,570	987	229	143
Ampleforth, North Yorks ..	2,240	2,002	107	131	5	—	2
Chillingham, Northumberland ..	1,940	1,487	210	243	87	—	—
Chopwell, Durham, Tyne and Wear .. .. .	875	795	14	66	—	2	4
Cleveland, North Yorks and Cleveland .. .. .	1,685	1,450	187	48	20	—	—
Cropton, North Yorks .. .. .	4,575	3,864	145	566	8	—	9
Dalby, North Yorks .. .. .	4,521	3,491	71	959	151	12	22
Don, South, West and North Yorks .. .. .	2,893	1,610	902	381	18	4	4
Falstone, Northumberland .. ..	14,966	13,264	—	1,702	—	—	15
Hamsterley, Durham .. .. .	3,729	2,807	733	189	—	4	6
Harwood, Northumberland .. ..	3,871	3,511	115	245	46	59	7
Jervaulx, North Yorks and Durham .. .. .	1,523	1,362	103	58	—	12	2
Kidland, Northumberland .. ..	3,458	2,238	639	581	123	—	—
Kielder, Northumberland .. ..	16,409	9,919	300	6,190	111	9	16
Knaresborough, North and West Yorks .. .. .	1,273	1,194	36	43	—	2	1
Langdale, North Yorks .. .. .	5,008	4,046	148	814	—	4	3
Osmotherley, North Yorks .. ..	1,575	1,463	46	66	25	—	1
Redesdale, Northumberland .. ..	5,697	5,009	—	688	—	1	13
Rievaulx, North Yorks .. .. .	2,202	1,732	147	323	7	11	1
Rothbury, Northumberland .. ..	2,253	1,894	167	192	42	1	4
Slaley, Northumberland and Durham .. .. .	1,189	1,080	68	41	10	—	2
Wark, Northumberland .. .. .	13,745	11,283	821	1,641	328	81	22
Wykeham, North Yorks .. .. .	2,215	1,843	34	338	—	25	8
Wynyard, Cleveland .. .. .	593	553	39	1	—	2	—
York, North Yorks and Humberside .. .. .	1,947	1,791	92	64	6	—	1

Note: Part of Mounces Forest has been added to Falstone and part to Kielder. Part of Selby Forest has been added to York and part to Don.

Table 14—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
EAST ENGLAND CONSERVANCY: TOTAL .. .. .	46,240	43,285	954	2,001	4	244	278
Aldewood, Suffolk .. .. .	3,624	3,468	12	144	—	—	27
Ampthill, Beds. . . . .	821	656	125	40	—	—	1
Bardney, Lincs. . . . .	3,042	2,924	23	95	—	16	4
Bernwood, Bucks and Oxon ..	888	697	191	—	—	3	—
Bramfield, Herts .. .. .	639	601	28	10	2	9	—
Chiltern, Bucks, Oxon, Beds, and Herts .. .. .	2,490	2,302	144	44	—	5	3
Hazelborough, Northants and Bucks .. .. .	1,158	1,085	61	12	—	6	5
Kesteven, Lincs. . . . .	2,082	1,986	16	80	—	—	7
Lavenham, Suffolk .. .. .	816	810	2	4	—	2	—
Lynn, Norfolk .. .. .	999	930	22	47	—	—	3
North Lindsey, Lincs .. .. .	2,098	1,949	5	144	—	—	35
Rockingham, Northants and Cambs. . . . .	2,864	2,618	134	112	—	—	3
Thetford, Norfolk and Suffolk	20,280	19,034	109	1,137	2	174	171
Walden, Essex, Cambs. and Herts. . . . .	705	647	48	10	—	—	—
Wensum, Norfolk .. .. .	2,196	2,121	1	74	—	20	16
Wymersley, Beds, Northants and Bucks. . . . .	1,538	1,457	33	48	—	9	3

Table 14—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
NEW FOREST AND SOUTH-EAST ENGLAND CONSERVANCY: TOTAL .. .. .	56,997	39,454	792	16,751	5	130	92
Alice Holt, Hampshire, West Sussex and Surrey .. ..	3,189	2,646	271	272	—	25	6
Arundel, West Sussex .. ..	3,436	3,253	63	120	—	—	3
Bedgebury, Kent and East Sussex .. .. .	3,963	3,640	—	323	—	4	10
Bramshill, Hampshire and Berks. .. .. .	2,455	2,369	73	13	—	2	7
Challock, Kent .. .. .	2,579	2,548	2	29	—	12	7
Micheldever, Berks and Hampshire .. .. .	2,462	2,321	34	107	—	—	6
New Forest, Hampshire .. ..	27,032	11,730	138	15,164	—	51	37
Queen Elizabeth Forest, West Sussex and Hampshire .. ..	4,168	4,035	105	28	—	12	3
Ringwood, Dorset .. .. .	2,898	2,602	32	264	—	15	9
St. Leonards, East Sussex and West Sussex .. .. .	1,749	1,555	10	184	—	—	—
Shipbourne, Kent and Surrey Wight, Isle of Wight .. ..	1,127	998	44	85	5	6	1
	1,939	1,757	20	162	—	3	3



Table 14—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
<b>SOUTH-WEST ENGLAND AND DEAN CONSERVANCY:</b>							
TOTAL .. .. .	46,066	40,888	1,862	3,316	58	247	146
Brendon, Somerset and Devon Cranborne Chase, Dorset and Wilts... .. .	1,545	1,366	45	134	16	7	6
Dartmoor, Devon .. .. .	2,951	2,717	214	20	—	—	1
Dean Forest, Gloucester, Here- ford and Worcester and Gwent .. .. .	2,399	2,111	27	261	—	6	12
10,802	9,570	150	1,082	18	80	38	
Eggesford, Devon .. .. .	1,157	1,106	31	20	1	19	6
Exeter, Devon .. .. .	2,733	2,409	190	134	—	8	12
Hereford, Gloucester, Hereford and Worcester .. .. .	2,357	2,039	309	9	9	5	3
Kernow, Cornwall .. .. .	3,490	3,230	138	122	—	14	11
Mendip, Avon, Somerset and Wilts... .. .	1,412	1,353	13	46	—	8	3
Neroche, Somerset and Devon	2,065	1,678	44	343	—	6	1
Powerstock, Dorset .. .. .	1,596	1,487	18	91	—	7	—
Quantock, Somerset .. .. .	1,311	1,095	13	203	14	7	10
Savernake, Wiltshire, Hamp- shire and Berks .. .. .	3,516	3,125	287	104	—	13	11
Torridge, Devon .. .. .	3,682	3,373	97	212	—	52	17
Wareham, Dorset .. .. .	3,413	2,721	227	465	—	—	9
Westonbirt, Gloucester .. .. .	100	—	59	41	—	—	—
Wyre, Salop, Hereford and Worcester .. .. .	1,537	1,508	—	29	—	15	6

Note: Cotswold amalgamated with Hereford.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—SCOTLAND

Table 15

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under plantations	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
<b>NORTH SCOTLAND CONSERVANCY: TOTAL</b> .. .. .	280,424	126,224	26,693	127,507	3,182	313	191
Achnashellach, Highland ..	4,684	2,699	421	1,564	28	—	4
Affric, Highland .. .. .	28,515	6,654	938	20,923	86	13	2
Ardross, Highland .. .. .	9,391	6,947	1,600	844	62	48	11
Black Isle, Highland .. .. .	5,909	5,531	7	371	—	31	15
Culloden, Highland .. .. .	7,009	5,780	75	1,154	—	1	10
Dornoch, Highland .. .. .	1,215	1,109	1	105	—	—	1
Farigaig, Highland .. .. .	4,400	3,241	222	937	—	26	3
Fiunary, Highland .. .. .	6,771	4,555	442	1,774	145	25	6
Glengarry, Highland .. .. .	17,080	5,994	895	10,191	170	12	12
Glenrigh, Highland .. .. .	2,359	1,288	307	764	2	13	11
Glenurquhart, Highland .. .	10,722	4,955	233	5,534	40	20	15
Helmsdale, Highland .. .. .	1,469	796	379	294	—	—	—
Hoy Experiments, Orkney Is- lands .. .. .	13	13	—	—	—	—	—
Inchnacardoch, Highland .. .	9,604	5,964	474	3,166	40	22	26
Inshriach, Highland .. .. .	4,324	3,242	247	835	11	30	2
Leanachan, Highland .. .. .	17,315	7,963	1,245	8,107	122	3	11
Mull, Strathclyde .. .. .	17,485	7,641	4,429	5,415	356	7	10
Naver, Highland .. .. .	12,535	5,760	2,078	4,697	272	—	—
The Queen's Forest, Highland	2,644	1,535	—	1,109	—	—	1
Ratagan, Highland .. .. .	5,020	2,605	140	2,275	80	21	15
Rumster, Highland .. .. .	5,444	2,346	2,508	590	140	—	—
Shin, Highland .. .. .	33,558	13,561	4,757	15,240	743	5	3
Skye, Highland and Western Isles .. .. .	21,146	6,594	3,475	11,077	367	2	6
South Strome, Highland .. .	2,998	1,919	123	956	31	4	5
Strathmashie, Highland .. .	18,650	4,414	20	14,216	102	26	4
Sunart, Highland .. .. .	13,565	4,909	1,351	7,305	267	—	13
Torrachilty, Highland .. .	16,599	8,209	326	8,064	118	4	5

Note: Fiunary Forest has been formed from part of Sunart.

Table 15—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
EAST SCOTLAND CONSERVANCY: TOTAL .. .. .	116,522	91,214	7,499	17,809	744	392	175
Alltcailleach, Grampian ..	1,804	1,664	14	126	—	—	4
Banchory, Grampian ..	5,518	5,278	14	226	—	15	12
Bennachie, Grampian ..	7,065	5,019	865	1,181	68	13	11
Blairadam, Fife ..	4,925	4,250	381	294	—	120	12
Braes of Angus, Tayside ..	4,951	3,535	306	1,110	19	26	1
Craigellachie, Grampian ..	5,182	4,283	624	275	18	31	3
Devilla, Fife and Central ..	1,532	1,318	26	188	—	—	2
Drummond Hill, Tayside ..	3,586	2,463	322	801	60	25	9
Dunkeld, Tayside ..	4,730	3,866	571	293	—	31	21
Forest of Deer, Grampian ..	2,713	2,570	—	143	—	15	9
Glenlivet, Grampian ..	4,622	4,298	5	319	—	—	4
Huntly, Grampian ..	10,153	8,654	36	1,463	33	16	20
Kirkhill, Grampian ..	1,199	1,166	1	32	—	—	2
Laigh of Moray, Grampian and Highland .. .. .	7,067	6,558	71	438	5	14	18
Mearns, Grampian ..	6,988	5,730	222	1,036	59	7	10
Montreathmont, Grampian and Tayside .. .. .	1,854	1,817	7	30	—	15	9
Rannoch, Tayside ..	14,182	6,622	2,236	5,324	270	—	—
Speymouth, Grampian ..	10,574	9,499	579	496	34	27	9
Strathardle, Tayside ..	3,411	2,949	180	282	58	—	3
Tentsmuir, Fife ..	1,595	1,485	7	103	—	8	13
Tornashean, Grampian ..	4,421	3,031	399	991	120	25	1
Tummel, Tayside ..	8,450	5,159	633	2,658	—	4	2

Note: Devilla transferred from West Scotland Conservancy.

Table 15—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agricultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
<b>SOUTH SCOTLAND</b>							
<b>CONSERVANCY:</b>							
TOTAL .. .. .	178,439	127,653	15,913	34,873	4,636	273	190
Ae, Dumfries and Galloway ..	6,049	5,742	206	101	3	42	19
Areleoch, Dumfries and Galloway .. .. .	4,355	3,254	1,048	53	186	—	—
Bareagle, Dumfries and Galloway .. .. .	4,503	4,197	68	238	177	1	1
Bennan, Dumfries and Galloway .. .. .	6,924	6,264	151	509	—	16	14
Carrick, Dumfries and Galloway and Strathclyde .. .. .	17,666	7,844	2,037	7,785	70	46	4
Castle O'er, Dumfries and Galloway and Borders .. .. .	5,518	5,370	57	91	3	69	21
Clatteringshaws, Dumfries and Galloway .. .. .	12,680	7,445	1,171	4,064	210	—	3
Clydesdale, Strathclyde and Lothian .. .. .	3,897	3,252	162	483	95	—	—
Craik, Borders .. .. .	6,110	4,723	901	486	140	—	4
Dalmacallan, Dumfries and Galloway .. .. .	4,077	2,589	880	608	193	—	7
Douglas, Strathclyde .. .. .	2,024	922	1,051	51	138	—	—
Dundeugh, Dumfries and Galloway .. .. .	3,705	3,036	201	468	95	—	6
Elibank, Borders .. .. .	5,118	3,748	885	485	40	—	6
Fleet, Dumfries and Galloway	6,809	6,341	46	422	119	4	6
Glentress, Borders and Lothian	4,469	3,764	387	318	182	8	8
Glentroll, Dumfries and Galloway and Strathclyde ..	22,842	12,493	360	9,989	312	—	5
Kirroughtree, Dumfries and Galloway .. .. .	6,344	4,249	—	2,095	—	—	12
Kyle, Strathclyde .. .. .	5,825	4,125	1,201	499	361	3	—
Lammermuir, Borders .. .. .	1,484	1,467	—	17	—	5	3
Moffat, Dumfries and Galloway Strathclyde and Borders ..	15,836	9,830	2,798	3,208	1,032	—	5
Newcastleton, Dumfries and Galloway and Borders .. .. .	3,806	3,734	43	29	100	37	14
Penninghame, Dumfries and Galloway .. .. .	6,914	5,820	684	410	438	—	5
Solway, Dumfries and Galloway	6,971	5,918	318	735	137	20	29
Stenton, Borders and Lothian	1,408	1,270	52	86	19	22	2
Upper Nithsdale, Dumfries and Galloway and Strathclyde ..	3,769	2,635	568	566	286	—	—
Wauchope, Borders .. .. .	9,318	7,621	638	1,059	300	—	16
Bush Nursery, Lothian .. .. .	6	—	—	6	—	—	—
Whittinghame Seed Orchard, Lothian .. .. .	12	—	—	12	—	—	—

Note: Glenbreck, Greskine and Moffat Water amalgamated to form Moffat.  
 Garraries amalgamated with Clatteringshaws.  
 Douglas formed from parts of Kyle, Upper Nithsdale and Clydesdale.  
 Part of Mannan Forest in West Scotland Conservancy added to Clydesdale.

Table 15—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under planta- tions	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
<b>WEST SCOTLAND CONSERVANCY TOTAL</b> .. .. .	210,027	114,733	28,258	67,036	4,586	216	157
Achaglachgach, Strathclyde ..	9,616	3,979	3,245	2,392	155	1	4
Achray, Central .. .. .	5,419	3,733	230	1,456	50	—	7
Ardgartan, Strathclyde .. ..	13,150	5,075	270	7,805	40	55	16
Arran, Strathclyde .. .. .	10,657	4,975	2,402	3,280	289	—	—
Barcaldine, Strathclyde .. ..	7,971	4,506	370	3,095	64	—	5
Benmore, Strathclyde .. .. .	11,067	5,442	725	4,900	102	24	9
Buchanan, Strathclyde and Central .. .. .	6,485	3,187	508	2,790	90	—	—
Carradale, Strathclyde .. .. .	6,029	2,642	1,368	2,019	36	—	1
Carron Valley, Strathclyde and Central .. .. .	4,708	3,955	346	407	26	58	8
Eredine, Strathclyde .. .. .	7,159	4,125	1,269	1,765	362	—	—
Fearnoch, Strathclyde .. .. .	2,040	1,704	169	167	74	3	4
Garelochhead, Strathclyde ..	2,592	1,640	245	707	109	—	—
Glenaray, Strathclyde .. .. .	6,497	3,536	1,354	1,607	253	—	—
Glenbranter, Strathclyde .. ..	6,960	4,352	157	2,451	101	23	23
Glencoe, Strathclyde and Highland .. .. .	8,666	4,467	214	3,985	104	—	5
Glendaruel, Strathclyde .. ..	9,576	4,810	1,315	3,451	194	—	—
Glenorchy, Strathclyde and Central .. .. .	15,347	6,676	1,010	7,661	420	—	—
Inverliever, Strathclyde .. ..	13,283	8,103	925	4,255	178	20	16
Kilmichael, Strathclyde .. ..	11,499	8,437	381	2,681	—	4	3
Knapdale, Strathclyde .. .. .	7,237	4,468	1,236	1,533	280	21	16
Loch Ard, Central .. .. .	10,356	7,138	876	2,342	78	7	19
Raera, Strathclyde .. .. .	3,937	2,293	1,074	570	295	—	—
South Kintyre, Strathclyde ..	11,855	7,540	3,298	1,017	918	—	1
Strathyre, Central and Tayside	9,232	4,748	1,732	2,752	45	—	20
Whitelee, Strathclyde .. .. .	8,687	3,202	3,539	1,946	323	—	—
Chapelhall Depot, Strathclyde	2	—	—	2	—	—	—

Note: Part of Mannan Forest added to Carron Valley and part to Clydesdale (South Scotland Conservancy).

Devilla Forest transferred to East Scotland Conservancy.

Tighnabruaich amalgamated with Glendaruel.

LAND USE, PLANTING AND TIMBER PRODUCTION BY FORESTS—WALES

Table 16

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under plantations	To be planted	Agri- cultural and other land	Planting (hectares)		Pro- duction (000 cu. m.)
					New planting	Re- stocking	
NORTH WALES CONSERVANCY: TOTAL .. .. .	79,118	64,850	2,325	11,943	408	258	195
Aeron, Dyfed .. .. .	2,396	2,294	14	88	—	8	3
Beddgelert, Gwynedd .. .. .	3,926	3,166	62	698	16	—	5
Ceiriog, Clwyd .. .. .	1,808	1,750	—	58	—	—	2
Ceri, Powys .. .. .	1,865	1,850	2	13	—	36	27
Clocaenog, Clwyd .. .. .	7,122	5,732	31	1,359	—	23	22
Clwyd, Clwyd .. .. .	2,067	1,911	35	121	—	1	1
Coed Sarnau, Powys .. .. .	3,185	2,981	72	132	—	2	9
Coed-y-Brenin, Gwynedd .. .. .	9,207	6,263	621	2,323	23	—	17
Cynwyd, Gwynedd and Clwyd .. .. .	785	721	—	64	—	6	3
Dyfi, Gwynedd and Powys .. .. .	7,343	6,436	78	829	2	77	22
Dyfnant, Powys .. .. .	3,297	2,557	161	579	38	—	8
Gwydyr, Gwynedd and Clwyd .. .. .	8,085	5,887	81	2,117	14	25	16
Hafren, Powys .. .. .	5,109	4,546	17	546	—	—	5
Mathrafal, Powys and Clwyd .. .. .	1,578	1,492	5	81	—	—	4
Newborough, Gwynedd .. .. .	1,792	1,485	10	297	—	—	1
Penllyn, Gwynedd .. .. .	4,377	3,379	618	380	40	—	3
Radnor, Powys .. .. .	2,526	2,342	76	108	44	23	21
Rheidol, Dyfed .. .. .	5,580	4,236	213	1,131	61	11	1
Ystwyth, Dyfed and Powys .. .. .	7,070	5,822	229	1,019	170	46	25

Note: Part of Dyfi has been added to Hafren.

Part of Dyfi Corris has been added to Rheidol.

The remaining parts of Dyfi and Dyfi Corris have been amalgamated to form Dyfi.

Table 16—continued

	Land use at 31st March 1977 (hectares)				During Year 1976-77		
	Total	Under plantations	To be planted	Agricultural and other land	Planting (hectares)		Production (000 cu. m.)
					New planting	Re- stocking	
<b>SOUTH WALES CONSERVANCY:</b>							
<b>TOTAL</b> .. .. .	82,126	68,974	4,563	8,589	690	533	187
Brechfa, Dyfed .. .. .	6,814	6,200	92	522	10	34	29
Brycheiniog, Powys .. .. .	1,617	1,505	1	111	—	37	15
Caeo, Dyfed .. .. .	2,148	1,891	55	202	—	—	11
Coed Abertawe, West Glam... ..	868	808	36	24	—	14	1
Coed Deufor, Dyfed .. .. .	1,986	1,897	60	29	—	10	—
<b>Coed Morgannwg:</b>							
Crynant, West Glam. .. .. .	3,279	2,232	644	403	41	32	6
Cymer, West Glam. and Mid Glam. .. .. .	5,536	4,666	227	643	—	34	1
Margam, West Glam. and Mid Glam. .. .. .	4,866	4,250	88	528	—	29	10
Rheola, West Glam. and Mid Glam. .. .. .	5,247	4,299	96	852	—	22	18
Coed Taf, Powys and Mid Glam. .. .. .	2,570	2,070	131	369	26	1	3
Coed-y-Rhaiadr, Powys .. .. .	2,527	1,641	652	234	58	103	2
Crychan, Powys and Dyfed .. ..	4,759	4,517	84	158	12	75	28
Ebbw, Gwent .. .. .	5,175	4,339	333	503	—	27	7
Glasfynydd, Powys and Dyfed ..	1,449	1,414	11	24	—	21	16
Irfon, Powys and Dyfed .. .. .	2,721	2,299	160	262	10	—	3
Mynydd Du, Powys and Gwent ..	1,480	1,300	27	153	—	—	5
Pembrey, Dyfed .. .. .	1,980	1,268	17	695	—	9	2
Preseli, Dyfed .. .. .	1,356	1,097	187	72	—	—	—
Rhondda, Mid Glam... .. .	4,608	2,921	829	858	171	10	—
Slebech, Dyfed .. .. .	842	780	14	48	—	—	1
St. Gwynno, Mid Glam. .. .. .	3,937	3,142	231	564	107	13	4
Tair Onen, Mid and South Glam. .. .. .	1,396	1,181	73	142	—	27	4
Talybont, Powys .. .. .	1,601	1,505	15	81	—	—	7
Tintern, Gwent .. .. .	3,899	3,795	42	62	—	35	12
Tywi, Powys and Dyfed .. .. .	8,390	6,949	404	1,037	255	—	—
Wentwood, Gwent .. .. .	1,075	1,008	54	13	—	—	2

Note: Cilgwyn amalgamated with Crychan.

Taf Fechan amalgamated with Coed Taf Fawr to form Coed Taf.





# **APPENDIX IX**







## **MAPS**

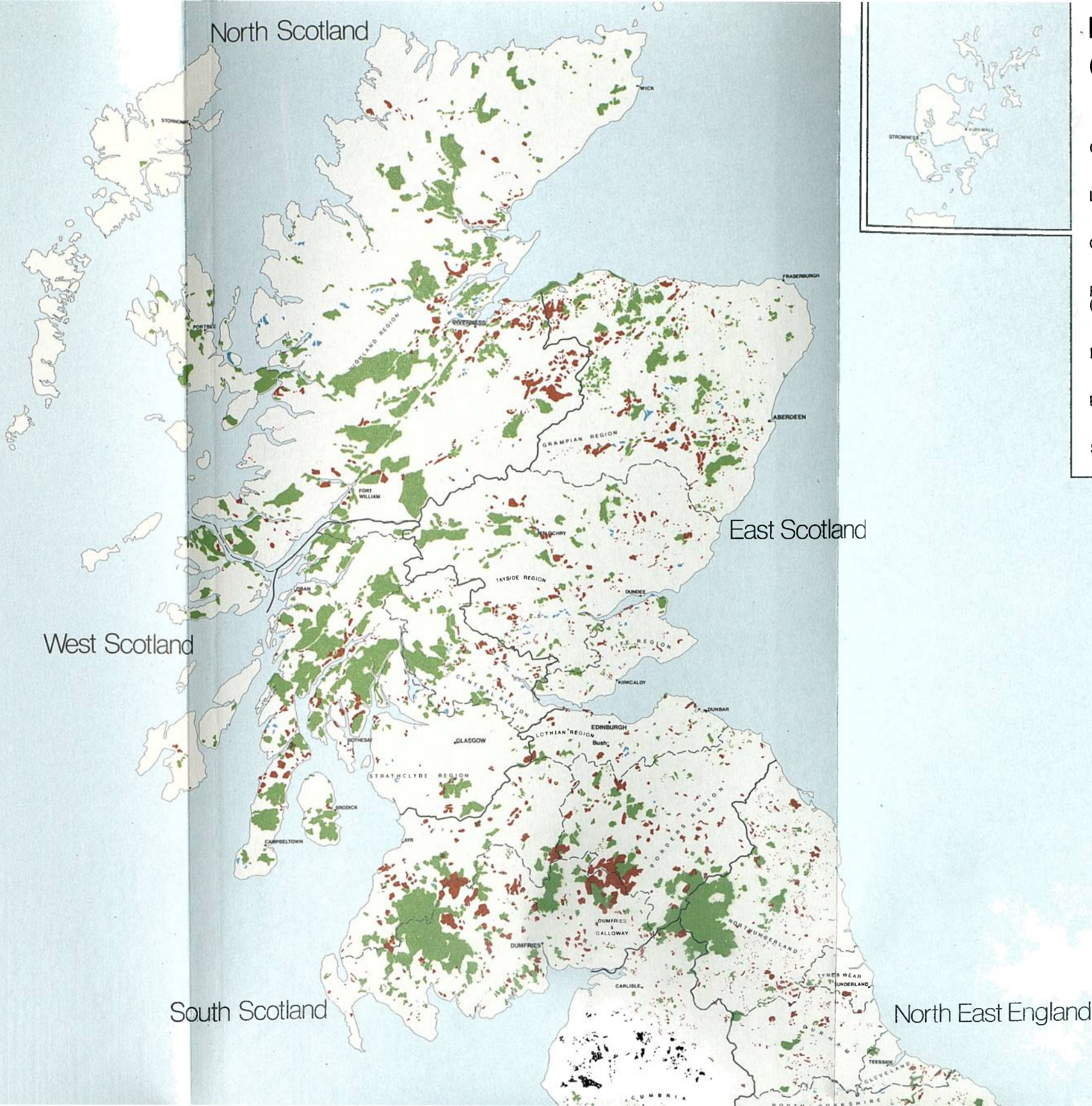
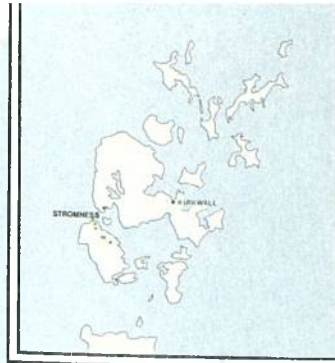
- 1. Forestry in Great Britain**
- 2. Forestry Commission Forests**

**Map 1—Forestry in Great Britain  
showing all Forestry Commission land and  
those Private Woodlands managed under  
Dedication and Approved Woodlands schemes**



# FORESTRY IN GREAT BRITAIN

- Conservancy Boundary 
- Local Authority Boundary 
- Conservancy Names 
- Forestry Commission Land (including unplanted land) 
- Private Woodlands: Dedicated 
- Private Woodlands: Approved 
- Scale 1:1875 000



North Scotland

East Scotland

West Scotland

South Scotland

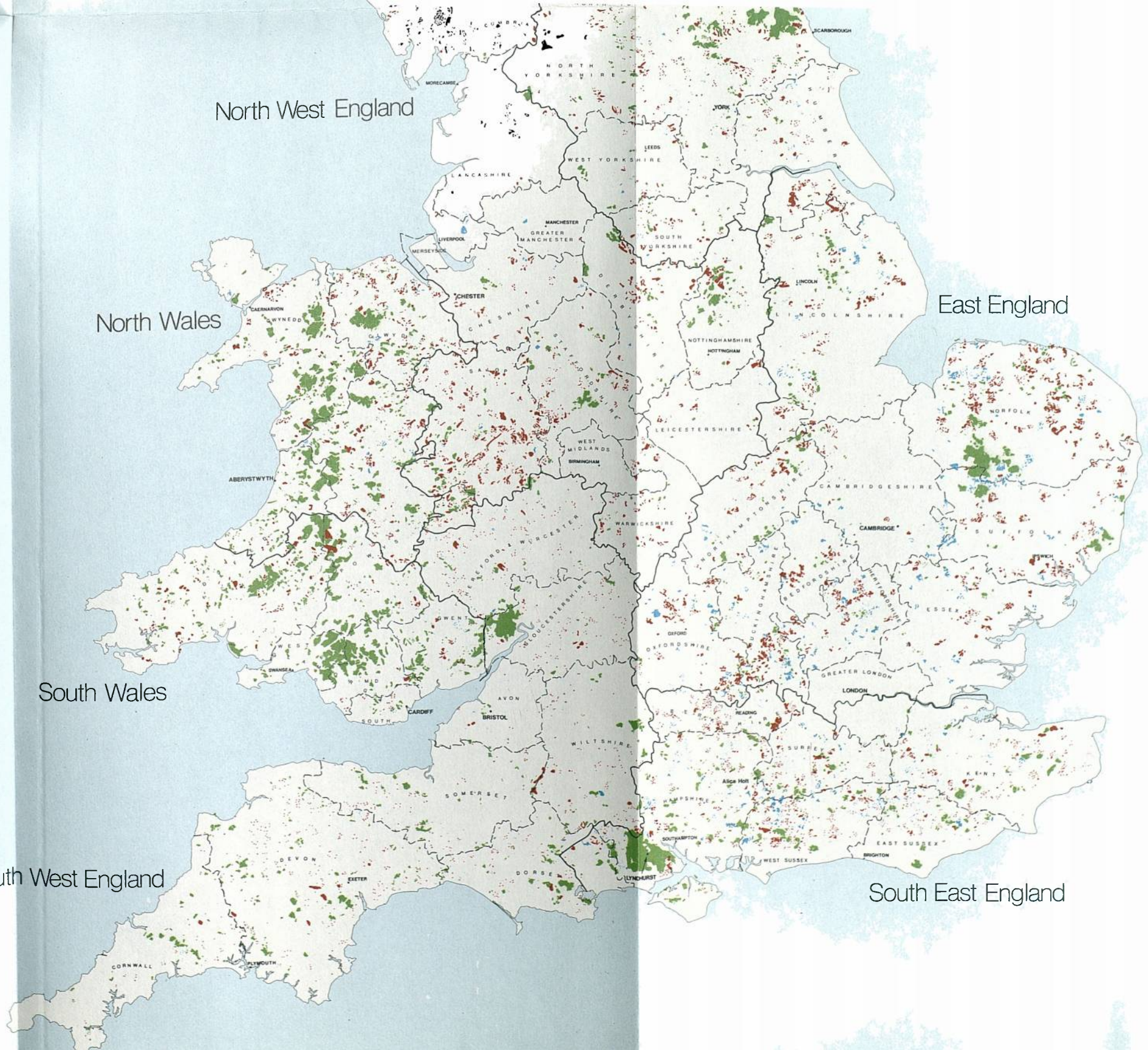
North East England

South West England

South Wales

North Wales

North West England



South East England

East England



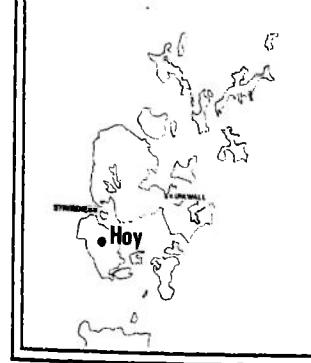


**Map 2—Forestry Commission Forests  
showing name and location at 31 March 1977**

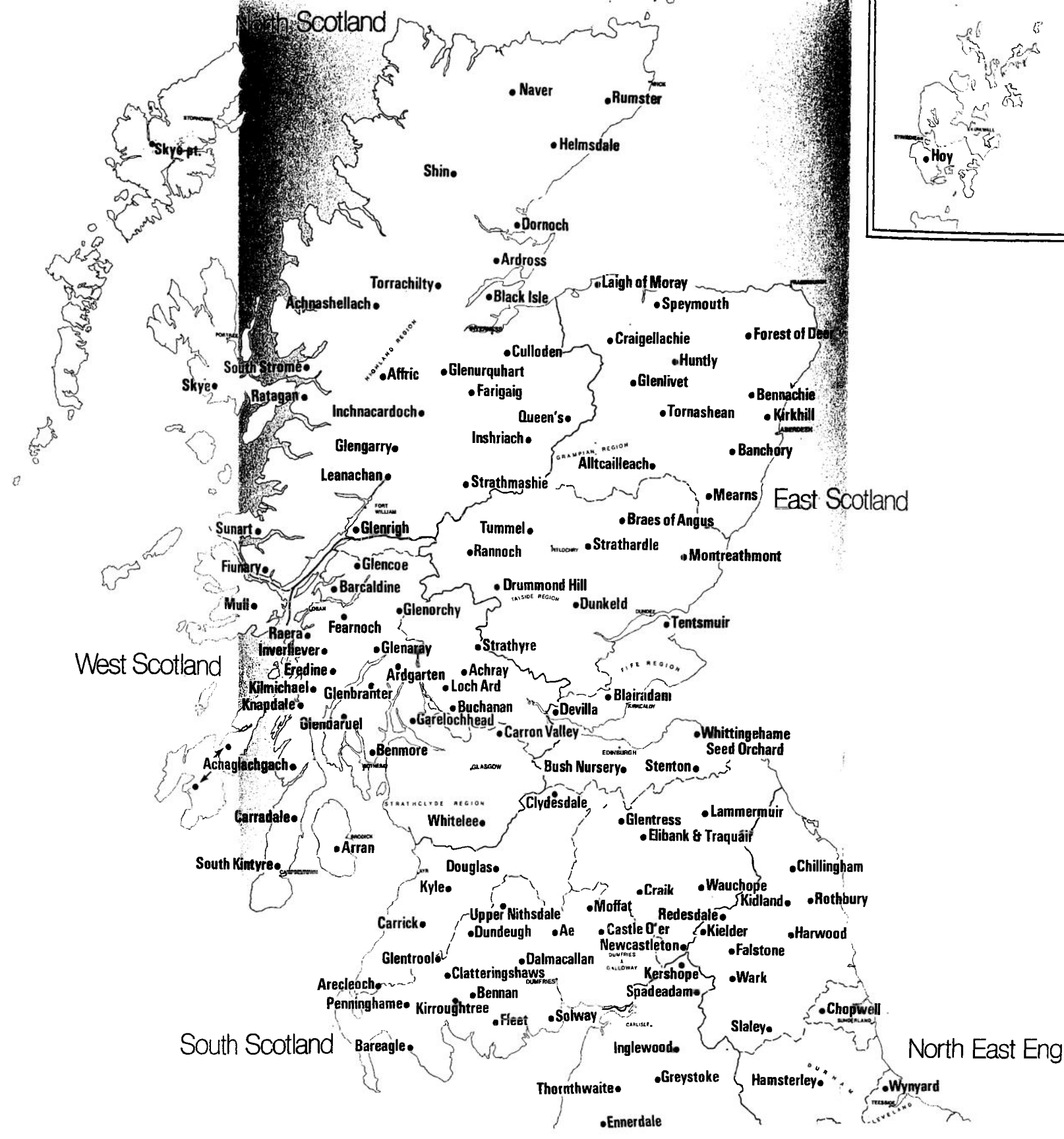




# FORESTRY COMMISSION FORESTS



Conservancy Boundary   
 Local Authority Boundary   
 Conservancy Names North Wales  
 Forest Names Grizedale  
 Scale 1:1875 000

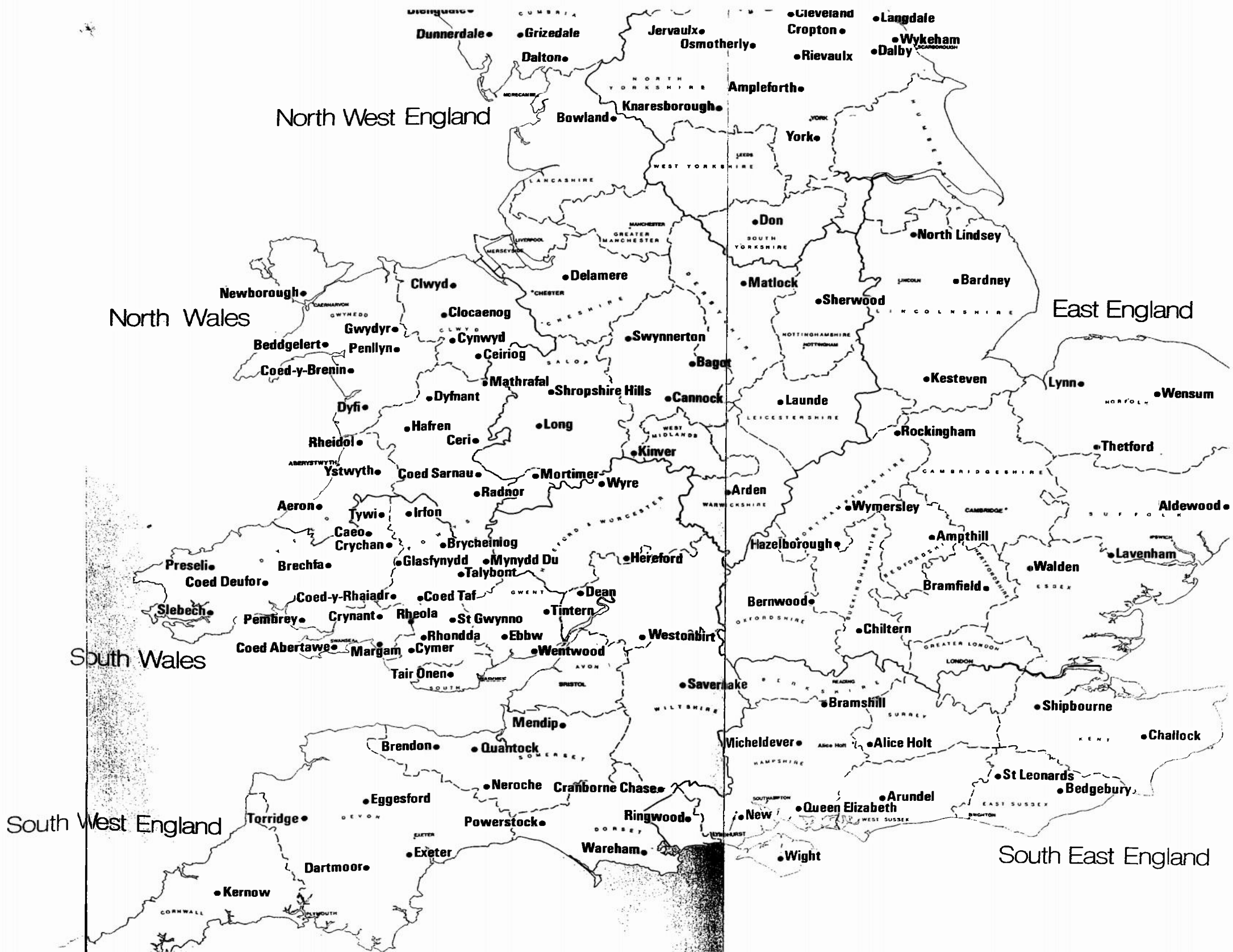


West Scotland

East Scotland

South Scotland

North East England



North West England

North Wales

East England

South Wales

South West England

South East England

Dunnerdale

Grizedale

Jervaulx

Cleveland

Langdale

Osmotherly

Cropton

Wykeham

Dalby

Rievaulx

Dalton

Ampleforth

Bowland

Knaresborough

York

Don

North Lindsey

Newborough

Clwyd

Delamere

Matlock

Sherwood

Bardney

Beddgelert

Gwydyr

Clocaenog

Swynnerton

Penllyn

Cynwyd

Ceiriog

Bagot

Coed-y-Brenin

Dyfnant

Shropshire Hills

Cannock

Kesteven

Lynn

Wensum

Rheidol

Hafren

Long

Kinver

Launde

Rockingham

Thetford

Ystwyth

Coed Sarnau

Mortimer

Wyre

Arden

Wymersley

Aldwood

Aeron

Tywi

Irfon

Radnor

Hereford

Hazelborough

Amptill

Lavenham

Preseli

Brechfa

Glasfynydd

Mynydd Du

Talybont

Dean

Bernwood

Bramfield

Walden

Slebech

Coed Deufor

Coed-y-Rhaiadr

Coed Taf

Westonbirt

Saverlake

Chiltern

Shipbourne

Pembrey

Crynant

Rheola

St Gwynno

Ebbw

Wentwood

Bramshill

Challock

Coed Abertawe

Margam

Cymer

Tair Onen

Brendon

Quantock

Wicheldever

Alice Holt

St Leonards

Bedgebury

Torrige

Eggesford

Neroche

Cranborne Chase

Ringwood

New

Queen Elizabeth

Arundel

Dartmoor

Exeter

Powerstock

Wareham

Wight

Kernow







**ADDRESSES OF THE MAIN OFFICES OF THE  
FORESTRY COMMISSION**

Headquarters of the Forestry Commission:

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

London Office:

25, Savile Row, London, W1X 2AY. (01 734 4251)

Senior Officer for Wales:

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

Director of Research and Development:

Alice Holt Lodge, Wrecchlesham, 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: Brooklands Avenue, Block D, Cambridge, CB2 2DY. (0223 58911)

New Forest and South-East: The Queen's House, Lyndhurst, Hants.,  
SO4 7NH. (042 128 2801)

South-West and Dean Forest: Flowers Hill, Brislington, Bristol, BS4 5JY.  
(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 2DA.  
(0970 612367)

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





# ACCOUNTS 1976-1977

**BALANCE SHEET** of the Forestry Commission Forestry Enterprise as at 31st March 1977, and **ACCOUNTS** for the year ended 31st March 1977 together with the Report of the Comptroller and Auditor General thereon.



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**FORESTRY COMMISSION**  
**ACCOUNTS OF THE FORESTRY ENTERPRISE FOR THE YEAR**  
**ENDED 31 MARCH 1977**  
**BALANCE SHEET AS AT 31 MARCH 1977**

<i>As at</i>	<b>Source of Funds</b>	£	£
<i>31 March 1976</i>	<b>CAPITAL</b>		
£	Balance at 1 April 1976 .. .. .	183,213,389	
165,173,589	Addition during the year (Note 2) .. .. .	18,399,019	
<u>18,039,800</u>			
183,213,389	Balance at 31 March 1977 .. .. .		201,612,408
	<b>BALANCES on accounts being accumulated to end of quinquennium (1977)</b>		
	<i>Surpluses</i>		
11,480,096	Harvesting Trading Account (Statement 2)	17,063,774	
5,268,828	Sale of Land and Buildings Account (Statement 4) .. .. .	5,905,466	
<u>16,748,924</u>		<u>22,969,240</u>	
	<i>Deficit</i>		
1,546,592	Miscellaneous Trading Accounts (Statement 3) .. .. .	2,123,006	
<u>15,202,332</u>	Net Surplus .. .. .		20,846,234
25,954,536	<b>NOTIONAL SUPERANNUATION FUND (Note 4)</b>		31,274,138
<u>£224,370,257</u>			<u>£253,732,780</u>
	<b>Employment of Funds</b>		
27,590,211	<b>FIXED ASSETS (Note 5)</b>		31,701,874
	<b>NET CURRENT ASSETS</b>		
3,755,782	Stocks and work in progress (Note 6) .. .. .	5,523,607	
5,766,271	Debtors and sundry debit balances .. .. .	7,869,546	
455,520	Cash at banks and in hand (Note 7) .. .. .	877,606	
<u>9,977,573</u>		<u>14,270,759</u>	
3,575,606	<i>Less</i> Sundry Creditors and accrued expenses	4,348,172	
<u>6,401,967</u>			9,922,587
173,948,786	<b>PLANTATIONS (valued at standard (1972) cost) (Statement 1) .. .. .</b>		185,232,719
16,429,293	<b>VARIANCE of cost of plantations over standard (Statement 1) .. .. .</b>		26,875,600
<u>£224,370,257</u>			<u>£253,732,780</u>

The notes on pages 88 to 94 form part of these Accounts.

*G. D. Holmes*  
Accounting Officer  
30 November 1977

I have examined the above Balance Sheet and the annexed Statements 1 to 5, 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 5 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.

*D. O. Henley*  
Comptroller and Auditor General

For Report of Comptroller and Auditor General, see page 99.

**FORESTRY COMMISSION**  
**PLANTATIONS ACCOUNT FOR THE YEAR ENDED 31 MARCH 1977**

<i>Previous Year</i> £	At 1 April 1976: 826,133 hectares valued at standard (1972) cost .. .. .	£	£
<i>161,412,220</i>			173,948,786
<b>EXPENDITURE</b>			
<i>14,050</i>	Plantations acquired .. .. .		34,200
<i>2,837,124</i>	Formation .. .. .		2,585,844
<i>1,827,767</i>	Protection .. .. .		2,171,985
<i>2,042,719</i>	Crop improvement .. .. .		1,896,830
<i>1,207,636</i>	Recreation and amenity .. .. .		1,186,961
<i>1,727,814</i>	Roads construction .. .. .		1,575,871
<i>837,608</i>	Roads maintenance .. .. .		946,619
<i>1,138,286</i>	Land acquired and planted (Note 5) .. .. .		1,013,598
<i>13,461,239</i>	Overhead expenses } (Statement 5) .. .. .		14,453,762
<i>5,901,495</i>	Interest .. .. .		6,628,548
<i>30,995,738</i>			32,494,218
<i>192,407,958</i>			206,443,004
<b>INCOME</b>			
<i>399,953</i>	Sundry Income .. .. .		578,806
<i>221,013</i>	Recreation and amenity .. .. .		317,728
<i>136,505</i>	Disposals of plantations .. .. .		586,038
<i>757,471</i>			1,482,572
<i>2,761,738</i>	Recreation and amenity subsidy } (Note 2)		2,709,469
<i>3,400,206</i>	Planting and restocking subsidy) .. .. .		3,271,037
<i>1,944,600</i>	Transfer to Harvesting Trading Account (Statement 2) for thinnings and fellings (Note 9) .. .. .		3,300,900
<i>8,864,015</i>			10,763,978
<i>183,543,943</i>	Net Total .. .. .		195,679,026
<i>173,948,786</i>	At 31 March 1977: 848,021 hectares valued at standard (1972) cost .. .. .		185,232,719
<i>9,595,157</i>	Variance from standard (Note 8) .. .. .		10,446,307
<i>6,834,136</i>	Variance from previous year .. .. .		16,429,293
<i>£16,429,293</i>	Variance to date		£26,875,600

## FORESTRY COMMISSION

## HARVESTING TRADING ACCOUNT FOR THE YEAR ENDED 31 MARCH 1977

<i>Previous Year</i>		£	£
	INCOME		
17,036,916	Sale of produce .. .. .	22,221,560	
151,895	Value of produce used in Commission's forests .. .. .	159,915	
<u>17,188,811</u>			<u>22,381,475</u>
	VARIATION IN STOCK AND WORK IN PROGRESS		
(495,121)	Increase .. .. .		878,726
<u>16,693,690</u>			<u>23,260,201</u>
	EXPENDITURE		
4,707,442	Marking, measuring, harvesting, extraction and conversion .. .. .	5,689,859	
1,183,927	Carriage and other expenses .. .. .	1,401,625	
<u>5,891,369</u>			<u>7,091,484</u>
<u>10,802,321</u>	NET HARVESTING REVENUE		16,168,717
6,042,490	Deduct Overhead expenses } (Statement 5) ..	7,150,084	
109,325	Interest } ..	134,055	
1,944,600	Value (at standard (1972) stumpage) of thinnings and fellings transferred from Statement 1 (Note 9) .. .. .	3,300,900	
<u>8,096,415</u>			<u>10,585,039</u>
2,705,906	Balance (surplus) .. .. .		5,583,678
<u>8,774,190</u>	Balance from previous year (surplus)		<u>11,480,096</u>
<u>£11,480,096</u>	Balance to date (surplus) ..		<u>£17,063,774</u>

**FORESTRY COMMISSION**  
**MISCELLANEOUS TRADING ACCOUNTS**  
**FOR THE YEAR ENDED 31 MARCH 1977**

Previous Year £		£	£	£
	<b>ESTATE MANAGEMENT</b>			
	(Farms, grazings, houses, buildings, etc.)			
384,977	Direct expenditure .. .. .	554,656		
559,733	Overhead expenses (Statement 5) .. .. .	664,861		
(18,488)	Less increase in stock .. .. .	44,122		
963,198			1,175,395	
474,045	Rents and other income receivable .. ..		597,960	
489,153	Balance in year before Interest (Note 10(a)) Deficit (Standard Surplus £509,540)		577,435	
129,589	Interest (Statement 5) .. .. .		152,862	
618,742	Balance in year after Interest .. Deficit		730,297	
1,035,848	Balance from previous year .. Deficit		1,692,058	
37,468	Adjustment for previous years .. Deficit		—	
1,692,058	Balance to date .. .. . Deficit			2,422,355
	<b>COMMERCIAL RECREATION</b>			
	(Camp sites, forest cabins, etc., shootings and fishings)			
258,359	Direct expenditure .. .. .	332,032		
149,867	Initial non-capital expenditure (Note 10(b))† ..	20,312		
275,794	Overhead expenses (Statement 5)* .. .. .	299,445		
684,020			651,789	
618,634	Income .. .. .		825,058	
(65,386)	Balance in year before Interest (Note 10(b)) .. .. . Surplus (Standard Surplus £91,613)		173,269	
21,488	Interest (Statement 5) .. .. .		28,910	
(86,874)	Balance in year after interest .. Surplus		144,359	
(90,726)	Balance from previous year .. Surplus		58,039	
235,639	Adjustment for previous years .. Surplus		—	
58,039	Balance to date .. .. . Surplus			202,398
	<b>AGENCY SERVICES AND LOAN OF LABOUR</b>			
645,695	Direct expenditure .. .. .	802,987		
308,358	Overhead expenses (Statement 5) .. .. .	457,476		
954,053			1,260,463	
965,202	Income .. .. .		1,304,257	
11,149	Balance in year before Interest .. Surplus (Note 10(c): Standard is NIL balance)		43,794	
6,997	Interest (Statement 5) .. .. .		10,462	
4,152	Balance in year after Interest .. Surplus		33,332	
(3,919)	Balance from previous year .. Surplus		233	
233	Balance to date .. .. . Surplus			33,565

† Includes £5,586 overhead expenditure for current year (See Statement 5).

\* Includes £20,521 deferred overhead expenditure from previous years which is not included in Statement 5.

(continued overleaf)

**Statement 3—Continued**

<i>Previous Year</i> £		£	£	£
	MISCELLANEOUS			
	Joint Management Scheme of the Lake Vyrnwy Estate in North Wales belonging to the Severn Trent Water Authority (Note 10(d)) . . . Deficit		23,808	
(19,675)	(Note: there is no standard for this item)			
67,519	Balance from previous year . . . . . Surplus		87,194	
<hr style="width: 100%;"/>			<hr style="width: 100%;"/>	
87,194	Balance to date	Surplus		<hr style="width: 100%;"/>
<hr style="width: 100%;"/>				63,386
£1,546,592	Balance to date on Miscellaneous Trading Accounts			<hr style="width: 100%;"/>
	Deficit			£2,123,006
				<hr style="width: 100%;"/>



**FORESTRY COMMISSION**  
**SALE OF LAND AND BUILDINGS ACCOUNT**  
**FOR THE YEAR ENDED 31 MARCH 1977**

<i>Previous Year</i>		£	£	£
<u>1,006,758</u>	Land—Selling price		529,488	
119,364	<i>Deduct</i> —Book value . . . . .	73,837		
241,536	Overhead expenses } (Statement 5) . .	180,813		
<u>2,720</u>	Interest . . . . .	<u>2,186</u>		
<u>363,620</u>			<u>256,836</u>	
<u>643,138</u>				<u>272,652</u>
<u>690,430</u>	Buildings—Selling price		660,931	
108,710	<i>Deduct</i> —Book value . . . . .	79,953		
206,653	Overhead expenses } (Statement 5)	257,843		
<u>2,870</u>	Interest . . . . .	<u>2,517</u>		
<u>318,233</u>			<u>340,313</u>	
<u>372,197</u>				<u>320,618</u>
<u>176,687</u>	Premiums from disposal of leases . . . . .			<u>43,368</u>
<u>1,192,022</u>	Balance in year . . . . .			<u>636,638</u>
	(Note: Standard is NIL Balance)			
<u>4,076,806</u>	Balance from previous year . . . . .			<u>5,268,828</u>
<u>£5,268,828</u>	Balance to date . . . . .			<u>£5,905,466</u>

STATEMENT OF OVERHEAD EXPENSES, LABOUR ONCOST, ESTATE EXPENSES AND INTEREST  
FOR THE YEAR ENDED 31 MARCH 1977

<i>Previous year</i>	£	Total	Plantations	Harvesting	Estate Management	Commercial Recreation	Agency	Disposals of Land and Buildings	Forestry Authority	Distribution Accounts	
											£
<b>OVERHEAD EXPENSES</b>											
<b>LOCAL SUPERVISION</b>											
	£	£	£	£	£	£	£	£	£	£	£
4,072,295	..	4,259,679									
727,833	..	778,109									
714,917	..	823,035									
740,907	..	860,376									
6,235,952	..	6,721,199									
8,723	..	11,364									
6,247,229	..	6,709,835	3,675,946	2,301,864	60,226	62,952	100,984	1,970	105,712	400,181	
1,044,757	..	1,085,562									
118,952	..	127,191									
74,406	..	82,818									
155,759	..	186,899									
1,393,874	..	1,482,470	783,192	217,795	67,700	23,419	8,522	23,328	296,646	61,868	
<b>CONSERVANCY OFFICE ADMINISTRATION</b>											
	£	£	£	£	£	£	£	£	£	£	£
2,004,593	..	2,130,775									
147,022	..	154,555									
238,817	..	290,164									
167,550	..	328,747									
21,416	..	25,566									
294,664	..	114,943									
78,844	..	76,115									
309,909	..	371,474									
3,162,815	..	3,492,339									
144,057	..	78,461									
3,018,758	..	3,413,878	1,295,947	527,052	284,310	51,253	2,809	147,040	409,584	695,883	
<b>HEADQUARTERS ADMINISTRATION</b>											
	£	£	£	£	£	£	£	£	£	£	£
2,117,456	..	2,243,992									
225,975	..	225,975									
205,232	..	102,612									
510,869	..	189,924									
275,865	..	347,050									
79,337	..	133,199									
57,632	..	15,712									
446,912	..	440,355									
456,394	..	593,078									
334,836	..	386,661									
4,710,508	..	4,678,558									
249,457	..	87,891									
4,461,051	..	4,590,667	1,434,275	772,523	145,172	65,827	—	239,983	1,352,144	580,743	
15,120,912	..	16,196,850	7,189,360	3,819,234	557,408	203,451	112,315	412,321	2,164,086	1,738,675	

2,447,053	<b>LABOUR ONCOST</b>									
766,048	National insurance, holidays and sick pay	2,913,708								
	Wet time .. .. .	1,029,933								
	Transport of workers, travel and subsistence .. .. .	2,172,913								
1,961,884	Training .. .. .	186,770								
155,180	Miscellaneous .. .. .	9,182								
13,574	Provision for pensions and gratuities .. .. .	2,231,149								
1,815,223	.. .. .	8,543,655								
7,158,962	<b>Less Miscellaneous income .. .. .</b>	51,276								
32,959			8,492,379	4,674,611	2,152,402	30,565	70,646	241,061		1,323,094
7,126,003										
330,076	<b>ESTATE EXPENSES (Net)</b>									
84,232	Forest Workers' Houses .. .. .	420,082								
7,497	Hostels and Botheries .. .. .	88,117								
87,520	Foresters' Houses .. .. .	7,426								
339,337	Administration and other buildings .. .. .	84,743								
34,015	Repair Depots .. .. .	326,332								
71,310	Lease Rents .. .. .	33,991								
		69,812								
954,007			1,030,503	539,764	199,996	32,328	10,218	11,626	38,584	184,272
	<b>DISTRIBUTION ACCOUNTS.. .</b>			2,050,027	978,452	44,560	28,396	92,474	39,512	(3,246,041)
23,200,922	TOTALS .. .. .	£	25,719,732	*14,453,762	7,150,084	664,861	£312,711	457,476	2,242,182	
11,254,700	Standard .. .. .	£	11,305,800	6,392,800	2,883,100	343,500	96,600	149,600	1,113,800	
6,174,484	Interest .. .. .	£	6,959,540	†6,628,548	134,055	152,862	28,910	10,462		

\* Includes £1,809,156 attributed to forest recreation and amenity.

† Includes £31,080 attributed to forest recreation and amenity.

‡ Includes £33,787 attributed to forest cabin development of which £28,210 is upheld against future operation.

**FORESTRY COMMISSION**  
**FORESTRY ENTERPRISE**  
**NOTES ON THE ACCOUNTS**

**1. ACCOUNTING POLICIES**

(a) The Commission's accounts were reconstructed at 1 April 1972 to bring out the subsequent performance in relation to a target rate of return in real terms on its notional capital. The net assets employed (mainly plantations) were revalued to a level at which the Commission could be expected to earn 3%, and subsidies were introduced into the accounts (i) to record the difference between 3% and the ruling rate of interest, (ii) to cover new planting and restocking undertaken for social reasons and (iii) for the provision of recreation, amenity and nature conservation for which commercial objectives cannot be set. To monitor progress in the intervening years between valuations an annual comparison is made of the actual costs incurred and receipts realised from sale with the standards assumed in the revaluation; the differences being accumulated in the Balance Sheet and explained in the notes to the Accounts. Because the accounts make no adjustment for inflation, which has effectively halved the purchasing power of the pound since 1972, variances between standards expressed in 1972 costs and prices and the actual expenditures and incomes have progressively widened. A revaluation of the entire estate is to be undertaken at the end of each quinquennium and this valuation, together with the accounts, suitably adjusted for inflation, will provide the basis for an appraisal whether the target rate of return has been achieved over the quinquennium. The new valuation will also provide a basis for a review of the level of subsidies and the revised opening capital for the next five year period. The first such revaluation as at 1 April 1977 has been carried out and the results are set out in the special section Notes 1 and 2.

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

**2. ADDITIONS DURING THE YEAR**

<i>Previous Year</i>		£	£
26,900,000	Grant-in-Aid of the Forestry Fund for 1976/77 .. .. .		27,000,000
5,597,771	Less Appropriated for the Forestry Authority .. .. .		5,738,190
<hr/> 21,302,229	Grant-in-Aid of the Forestry Enterprise ..		21,261,810
2,954,696	Deduct: Planting subsidy (Notes (i) and (ii) below) .. .. .	2,758,979	
445,510	Restocking subsidy (Notes (i) and (ii) below) .. .. .	512,058	
2,761,738	Forest recreation and amenity subsidy (Notes (i) and (iii) below) ..	2,709,469	
198,171	Adjustment to previous years' forest recreation and amenity subsidies .. .. .	—	
53,346	Notional sick and injury benefit ..	57,491	
(64,410)	Add Increase in liabilities for properties acquired without payment ..	5,028	
<hr/> 6,477,871			<hr/> 6,032,969
14,824,358	Balance of Grant-in-Aid to be added to capital .. .. .		15,228,841
3,215,442	Add notional interest on capital (Note (iv) below) .. .. .		3,170,178
<hr/> £18,039,800	Addition to capital		<hr/> £18,399,019

Notes on the Accounts (continued)

(i) DETAILS OF SUBSIDIES

	Planting		Restocking		Forest Recreation and Amenity
	Area Planted (hectares)	Subsidy per hectare	Area Planted (hectares)	Subsidy per hectare	
Great Britain .. .. .	15,548	£ 177	3,155	£ 162	£ 512,058
ENGLAND					£ 2,709,469
Conservancy: Total .. .. .	1,302	166	1,170	302	1,309,533
North West .. .. .	248	317	320	346	198,444
North East .. .. .	987	95	239	89	167,417
East .. .. .	4	366	244	229	20,381
New Forest and South East .. .. .	5	414	130	414	55,876
South West and Dean .. .. .	58	684	247	457	439,968
SCOTLAND					268,319
Conservancy: Total .. .. .	13,148	168	1,194	62	862,143
North .. .. .	3,182	212	313	(45)	267,965
East .. .. .	744	180	392	171	165,211
South .. .. .	4,636	113	273	10	190,762
West .. .. .	4,586	191	216	84	238,205
WALES					537,793
Conservancy: Total .. .. .	1,098	305	791	107	84,561
North .. .. .	408	363	258	210	54,180
South .. .. .	690	271	533	57	30,381

Analysis of Great Britain Forest Recreation and Amenity Subsidy:

Expenditure .. .. .	£ 1,186,961
Overheads and Interest .. .. .	1,840,236
(Statement 5)	
Less Income .. .. .	3,027,197
	317,728
	£2,709,469

Notes on the Accounts (*continued*)

- (ii) The subsidies for planting and restocking are calculated by multiplying the areas planted and restocked in the year by factors (at 1972 values) derived from planting and restocking models based on analysis of soil types for the reserve of plantable land at April 1972 in every Conservancy.
- (iii) Forest Recreation and Amenity covers information centres, car parks, forest walks, nature trails, conservation of wild life, etc. and small scale amenity planting from which no commercial rate of return can be expected, together with motor sports and other special activities. Expenditure on these facilities less related income is met by a subsidy which amounted to £2,709,469 in 1976/77 (compared to £2,761,738 in 1975/76).
- (iv) Notional Interest and Forestry Subsidy

	£
Interest at 14.6% on opening balance of £224,370,257 and on one-half of addition of £15,228,841 during the year .. ..	33,869,763
<i>Deduct</i> Forestry Subsidy .. .. .	26,910,223
	£6,959,540
Interest of 3% effectively charged in accounts (Statement 5) and credited to:	
	£
Capital .. .. .	3,170,178
Superannuation Fund .. .. .	3,789,362
	£6,959,540

3. THE CAPITAL AT 31 MARCH 1977 INCLUDES

- (a) A contingent liability to the Crown Estate Commissioners of £1,432,777 (previous year figure £1,427,749) in respect of the value of properties, etc., including New and Dean Forests acquired under the Forestry (Transfer of Woods) Orders 1924-61. The difference arises from a previous year's adjustment.
- (b) Gifts to the value of £152,351 (no change from previous year).

4. NOTIONAL SUPERANNUATION FUND

	£
Balance 1 April 1976 .. .. .	25,954,536
Interest at 14.6% on opening balance .. .. .	3,789,362
Provision made during year (including £215,802 charged to Forestry Authority)	4,252,365
Contributions received during the year .. .. .	874,628
	34,870,891
<i>Less</i> payments made during the year .. .. .	3,596,753
Balance 31 March 1977 .. .. .	£31,274,138

Notes:

- (i) The notional superannuation fund was revalued by the Government Actuary at the end of the quinquennium (1977)—see Special Note 1.
- (ii) Included in the payments are annuities totalling £45,104 paid to the National Debt Office in respect of commuted compensation allowances totalling £306,617 paid to forester grades retired prematurely.

Notes on the Accounts (*continued*)

5. FIXED ASSETS

	<i>Land</i>	<i>Buildings</i>	<i>Vehicles, Machines and Equipment</i>	<i>Office Furniture and Equipment</i>	<i>Total</i>
	£	£	£	£	£
Value at 1 April 1976	10,731,857	14,988,737	11,314,459	670,360	37,705,413
Additions .. ..	2,901,477	1,221,573	3,149,717	90,623	7,363,390
Disposals and Transfers	1,066,678	170,792	798,574	9,853	2,045,897
Balance at 31 March 1977 ..	12,566,656	16,039,518	13,665,602	751,130	43,022,906
Accumulated depreciation at 1 April 1976 .. ..	—	4,173,626	5,649,803	291,773	10,115,202
Provision for year .. ..	—	298,482	1,707,919	51,994	2,058,395
Disposals and Transfers ..	—	90,840	757,075	4,650	852,565
Accumulated depreciation at 31 March 1977 .. ..	—	4,381,268	6,600,647	339,117	11,321,032
Balance at 31 March 1977 ..	£12,566,656	11,658,250	7,064,955	412,013	31,701,874
Balance at 31 March 1976 ..	£10,731,857	10,815,111	5,664,656	378,587	27,590,211

Notes:

- (i) Land under plantations and roads are included in the Plantations Account.
- (ii) Land in the above table comprises 89,688 hectares of plantable land, 139,128 hectares of agricultural grazing and nursery land and 173,531 hectares of other land. The balance at 31 March 1977 represents the area held at 1972 Standard Values plus excess of cost over Standard Values of land acquired since 1 April 1972.
- (iii) Transfers include land afforested during the year, which together with disposals have been credited at 1972 Standard Values.
- (iv) Buildings, vehicles, machines, furniture and equipment are stated at cost except that buildings used for forest recreation and amenity are stated at a nominal sum of £100 per asset.
- (v) Depreciation is provided by charges to operating costs of the amounts required to write off the original cost of the assets by equal annual instalments over their estimated effective lives.
- (vi) Net value of Buildings at 31 March 1977 is classified as:

Estate Expenses	£8,604,399
Estate Management	£1,791,434
Recreation	£1,262,417

6. STOCKS AND WORK IN PROGRESS

As at 31 March 1976

	£	£
2,382,115 Timber		3,260,841
233,600 Nursery		431,827
1,140,067 Other		1,830,939
<u>£3,755,782</u>		<u>£5,523,607</u>

Stock and work in progress are valued as follows:

Timber – at net realisable value  
Nursery – at cost

Other

- (a) Forest Stocks and Bulk Stores – at cost.
- (b) Farm Stocks – at the lower of cost or market value.

Notes on the Accounts (*continued*)

7. CASH AT BANKS AND IN HAND

As at 31 March 1976

£		£
(85,169)	Balance of Forestry Fund with Paymaster General ..	51,435
178,186	Balance in banks .. .. .	529,476
362,503	Cash in transit and in hand .. .. .	296,695
£455,520		£877,606

8. VARIANCE ON PLANTATIONS ACCOUNT

The increase in the value of the plantations during the year (at 1972 standard costs and prices) is £11,283,933 while actual net expenditure and transfer values amounted to £21,730,240, a variance of £10,446,307 which arose as follows:

Operational Expenditure

	<i>Standard at 1972 costs and prices</i>	<i>Actual</i>	<i>Variance</i>
	£	£	£
Formation .. .. .	1,303,742	2,585,844	1,282,102
Protection .. .. .	964,600	2,171,985	1,207,385
Crop Improvement .. .. .	1,222,700	1,896,830	674,130
Road Construction .. .. .	1,101,100	1,575,871	474,771
Road Maintenance .. .. .	513,100	946,619	433,519
Sub-total .. .. .	5,105,242	9,177,149	4,071,907
Income .. .. .	181,500	578,806	397,306
Net expenditure .. .. .	4,923,742	8,598,343	3,674,601
Overheads .. .. .	5,872,900	12,644,606	6,771,706
Total .. .. .	£10,796,642	£21,242,949	£10,446,307

Increases in wages and other costs mainly account for the additional operational expenditure. Programme alterations also contribute to this variance and the standards set in some instances did not fully take account of the work content which experience shows is necessary. The income improvement was mainly due to an increase in revenue from wayleaves, easements and mineral exploitation. The main causes for the increase in overheads are (a) increases in salaries, and (b) increases in labour oncost as a result of higher wages and larger provision for pensions and gratuities following an improvement in the conditions for industrial employees. The cumulative variance from the 1972 standards which set the 3% target is now £26·876 million at the end of the quinquennium. This variance is taken into account in the assessment of performance over the past five years (see Special Note 2) and will be cleared from the account following revaluation of the forest estate and determination of a revised opening capital at 1 April 1977. Revised standards will then be set for the next quinquennium and variances between these standards and actual expenditure and income again accumulated.

9. HARVESTING TRADING ACCOUNT

There was a surplus of £5·584 million in the year on the Harvesting Trading Account after charging £3·301 million for the value of thinnings and fellings consumed at 1972 standard values. A nil balance would have indicated for the trees harvested no deviation from the 3% target. The improvement in the year over this standard arises from:

- (a) An increase in net harvesting revenue of £9·985 million reflecting the substantial rise in prices since the standard was set, offset by
- (b) an increase in overhead expenses of £4·267 million due mainly to wage and salary increases and an interest charge of £0·134 million.

The annual balance on this account is accumulated in the Balance Sheet (the cumulative surplus at the end of the quinquennium being £17·064 million) and taken into account in assessing the performance over the past five years (See Special Note 2). The balance will then be cleared on re-assessment of the net worth of the Enterprise.



10. MISCELLANEOUS TRADING ACCOUNTS

(a) The Estate Management Account includes two categories of assets which cannot be separated for the purposes of accounting.

- (i) Subjects which are tenanted temporarily pending resumption for planting.
- (ii) Land unsuitable for planting and buildings incidentally acquired on purchasing land which not being essential to the Forestry Enterprise are held as surplus assets pending disposal. Disposals which occurred in 1976-77 are detailed in Statement 4.

Certain of the assets in both categories are managed by the Department of Agriculture and Fisheries for Scotland on an agency basis.

The standard surplus required to produce an overall return of 10% is £509,540 compared with an actual deficit of £577,435.

(b) The Commercial Recreation Account covers the provision of tourist accommodation in the form of camping and caravan sites, forest cabins, etc., for overnight visitors together with the letting of shooting and fishing rights belonging to the Commission. Included in the account under the title of Initial non capital expenditure is the sum of £20,312 spent on the development of low cost holiday accommodation which, because of the economic situation, is now regarded as abortive.

The recorded balance in the year before interest is a surplus of £173,269 of which £113,946 relates to Fishings and Shootings and £59,323 to tourist accommodation, the latter figure can be compared with a standard surplus of £91,613 required to produce an overall return of 10%. There is an accumulated surplus on the account since the beginning of the quinquennium of £202,398.

(c) The account for Agency Services and Loan of Labour should be in balance with income equalling expenditure. There is a surplus for the year of £33,332 with a cumulative surplus since the beginning of the quinquennium of £33,565.

(d) Miscellaneous Income includes a payment to Severn Trent Water Authority representing an equal share in the deficit on the joint management afforestation scheme at Lake Vyrnwy in North Wales. Receipts from this source now exceed payments by some £42,000.

11. OVERHEAD EXPENSES, LABOUR ONCOST, ESTATE EXPENSES AND INTEREST

The actual cost of overhead, oncost and estate expenses in the current year amounts to £25.720 million compared to a standard set of £11.306 million – a variance of £14.414 million. This represents an increase of about 127% in five years. The excess is mainly due to increased staff costs; the number of staff in post having decreased since 1 April 1972.

12. AUDIT FEE

The sum of £14,750 was paid to Exchequer and Audit Department during the year as an audit fee for the examination of the Trading Account for the financial year ended 31 March 1976. The audit fee paid in the previous year was £13,500.

13. EMOLUMENTS OF THE FORESTRY COMMISSIONERS

	£
Chairman ..	.. 5,900
Commissioners ..	.. 55,235
	<hr/>
Total Emoluments of ..	.. £61,135 (£61,926 in the previous year)

The emoluments paid were within the following annual scales:

	Year ending 31 March 1977	Previous Year
£1-£2,500	5 (part-time)	5 (part-time)
£2,501-£5,000	—	—
£5,001-£7,500	1 (part-time)	1 (part-time)
£7,501-£10,000	—	—
£10,001-£12,500	3	3
£12,501-£15,000	1	1

Notes on the Accounts (*continued*)

#### 14. EMPLOYEES' REMUNERATION

Emoluments in excess of £10,000 were paid to employees of the Forestry Commissioners within the following annual scale:

	Year ending 31 March 1977	Previous Year
£10,001-£12,500	6	15

Reduction in numbers is due to the fact that in the previous year employees received salary arrears bringing their earnings exceptionally above £10,000.

#### 15. FUTURE CAPITAL EXPENDITURE

Future capital expenditure on Fixed Assets in 1977/78 authorised by the Commissioners amounts to £6,855,000 (£6,500,000 for 1976/77).

#### 16. CONTINGENT LIABILITIES

Contingent liabilities exist at 31 March 1977 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 £73,140 (£13,666 at 31 March 1976).

#### 17. ACCOUNTING FOR INFLATION

No attempt has been made in these accounts to reflect the effect of the changing value of the pound but it has been decided that for the quinquennium commencing 1 April 1977 current cost accounting concepts will be adopted broadly conforming to the recommendations made by the Inflation Accounting Steering Group. The 1977 revaluation of the assets and liabilities has been carried out on this basis (see Special Note 1).

### SPECIAL NOTE 1 TO ANNUAL ACCOUNTS 1976-77

#### ADJUSTMENTS ARISING FROM REVALUATION

A revaluation of Plantations, Fixed Assets, Stocks and Work in Progress and the Notional Superannuation Fund as at 1 April 1977 has been carried out, together with a recalculation of the planting subsidies for the quinquennium 1977-82.

#### REVALUATION

This comprised two stages hereafter referred to as Stages I and II.

##### *Stage I*

Plantations and fixed assets were revalued using the same weights and accounting concepts adopted in 1972 and converting historic costs and prices into £1977 using an index based on the GDP implicit price deflator derived from Economic Trends No 286 and earlier issues as follows:

1971/72	..	..	100.0
1972/73	..	..	109.6
1973/74	..	..	119.2
1974/75	..	..	143.4
1975/76	..	..	181.7
1976/77	..	..	205.3

The resultant figures are set out below and have been used in Special Note 2 to assess the performance in the quinquennium 1972-77.

		£ million
Fixed Assets	..	46.7
Net Current Assets		9.9
Plantations	..	389.7
		<hr/>
		446.3

##### *Stage II*

- (a) The asset values at Stage I were further adjusted to take into account the latest assumptions about real costs, prices, and inputs including a current cost basis for the value of fixed assets, stocks and work in progress. The Superannuation Fund liability

Notes on the Accounts (*continued*)

was revalued by the Government Actuary. The revised valuation will be incorporated into the 1977/78 Accounts together with corresponding adjustments to the Capital and Notional Superannuation Fund.

(b) Assets have been revalued in accordance with the following principles:

- Plantations – expectation value derived from future incomes net of future expenditures discounted at 3%. Timber prices are based on a 10½-year average of surpluses expressed in £1977. Expenditures are based on mid 1976/77 cost levels and incorporate changes in the pattern of expenditure, the use of a current cost basis for assessment of depreciation and stock usage and the inclusion of part of research and development expenditure previously charged to Forestry Authority.
- Surplus land and buildings – open market value *less* cost of disposal.
- Other land and buildings – open market value *plus* costs of acquisition *or* net current replacement cost in the case of specialist buildings.
- Vehicles, machines and equipment – net current replacement cost.
- Stocks and work in progress:
  - Timber, plants and seed – net realisable value.
  - Consumable materials and tools – current replacement cost.
  - Livestock – lower of historic cost and net realisable value.

(c) The effect of the further revaluation is to increase the Stage I value by £52.1 million to a sum of £498.4 million for incorporation in the 1977/78 Accounts. Details are as follows:

	<i>Balance Sheet</i> 31/3/77	<i>Stage I</i> <i>Revaluation</i>	<i>Stage II</i> <i>Revaluation for</i> <i>incorporation in</i> <i>1977/78 Accounts</i>	<i>Total</i> <i>Increase</i>
	£M	£M	£M	£M
<b>Assets employed</b>				
Fixed Assets .. ..	31.7	46.7	79.6	47.9
Net Current Assets ..	9.9	9.9	10.3	0.4
Plantations (including variance) .. ..	212.1	389.7	408.5	196.4
	<u>253.7</u>	<u>446.3</u>	<u>498.4</u>	<u>244.7</u>
<b>Sources of Funds</b>				
Notional Superannuation Fund .. .. .	31.3	—	71.4	40.1
Capital	201.6			
<i>Add</i> Balances on Harvesting, Sale of Land and Buildings and Misc. Trading Accounts ..				
	20.8			
	<u>222.4</u>		<u>427.0</u>	<u>204.6</u>
	<u>253.7</u>	<u>446.3</u>	<u>498.4</u>	<u>244.7</u>

Notes on the Accounts (*continued*)

(d) The difference of £52.1 million between the Stages I and II valuations is analysed below:

	£ million
Use of 10½-year average surpluses in estimating timber income in place of 1971/72 levels assumed in Stage I .. .. .	+96.3
Expenditure changes (altered overhead provisions, provisions for increased cost of harvesting with lower road density, current cost basis for use of fixed assets, allowance for 45% of research and development expenditure) .. .. .	--77.5
Increases in valuation of fixed and net current assets from historic costs in £1977 to a current cost basis .. .. .	+33.3
	+52.1

**PLANTING SUBSIDIES**

These were introduced in 1972 to cover new planting and restocking undertaken primarily for social reasons which could not earn the target rate of return. New levels of subsidy have been calculated on the basis of similar assumptions to those used in the revaluation of plantations and the results are set out below.

	<i>Conservancies</i>	<i>1977-82 Subsidy per hectare £(1977)</i>	
		<i>Planting</i>	<i>Restocking</i>
<b>England:</b>			
North West .. .. .		463	687
North East .. .. .		201	406
East .. .. .		343	441
South East and New Forest .. .. .		929	1,104
South West and Dean .. .. .		597	893
<hr/>			
<b>Scotland:</b>			
North .. .. .		395	50
East .. .. .		204	(43)
South .. .. .		116	(167)
West .. .. .		176	(80)
<hr/>			
<b>Wales:</b>			
North .. .. .		458	663
South .. .. .		658	562

**FOREST RECREATION AND AMENITY SUBSIDY**

In real terms annual expenditure has ranged from some £2 million in 1972-73 to a current level of almost £3 million. For the period 1977-82 the level of subsidy will continue at about £3 million in real terms.

**SPECIAL NOTE 2 TO ANNUAL ACCOUNTS 1976-77**

**MEASUREMENT OF RETURN IN REAL TERMS ON CAPITAL EMPLOYED**

(a) The Commission was set a target rate of return of 3% in real terms on its notional capital. The measurement of this return over the quinquennium 1972-77 has been assessed by converting opening capital and additions thereto in the form of grants-in-aid (net of subsidies), increases in the Superannuation Fund and notional interest in the five-yearly period into £1977 by use of the GDP index mentioned in Special Note 1, and comparing the result with the sum produced from the Stage I valuation.

(b) This comparison discloses:

	£(1977) million
Opening Capital at 1/4/72 .. .. .	314.9
Grants-in-aid (net of subsidies) .. .. .	46.5
Increases in Superannuation Fund (exclusive of interest) .. .. .	7.4
Notional interest at 3% on funds provided and internally generated surpluses .. .. .	55.2
	424.0

Notes on the Accounts (*continued*)

Employment of Funds	<i>£ (1977) million</i>
Fixed Assets ..	.. 46.7
Net Current Assets ..	.. 9.9
Plantations .. ..	.. 389.7
	<hr/> 446.3

(c) Assets thus show a surplus over liabilities of £22.3 million which arises as follows:

	<i>£ million</i>	<i>£ million</i>
Harvesting and marketing		
(i) Excess of net harvesting revenue over standard	18.4	
(ii) Excess of overheads over standard .. ..	(4.5)	
	<hr/>	13.9
Sale of land and buildings .. .. .		8.2
Net deficit on miscellaneous trading activities		
(i) Estate management deficit .. ..	(3.5)	
(ii) Commercial recreation surplus	0.3	
(iii) Agency and miscellaneous surplus	0.1	
	<hr/>	(3.1)
Plantations		
(i) Reduction in operational net expenditure below standard .. .. .	5.5	
(ii) Excess of overheads over standard .. ..	(2.5)	
	<hr/>	3.0
Land purchase prices higher than standard .. ..		(2.1)
Benefit arising from management decisions affecting future work quantities and output .. .. .		2.4
		<hr/> 22.3

The substantial surplus on harvesting and marketing is primarily due to the exceptional increases over the price assumptions for timber sales.

The surplus from the sale of land and buildings is in part due to the fact that fixed assets were not revalued at 1972 and historic costs were used in the assessment of the gains arising on sale.

The estate management account includes a considerable number of properties which are tenanted temporarily pending resumption for planting which will, in future years, be treated as part of overhead expenses applicable to management of the forest estate, thus restricting the trading account to recording the result on the retention and management of surplus properties pending disposal.

The reduction in net expenditure in the creation and maintenance of plantations mainly results from a reappraisal of the level of weeding and crop improvement work, a marked fall in road construction stemming from a review of roading densities and increased income from mineral exploitation.

Improvements in staff pensions and increased National Insurance contributions mainly account for the excess of overhead expenditure over standard shown above against harvesting and marketing and plantations.

Prices paid for plantable land were higher than the general rise in cost and prices adopted in the revaluation.

Management decisions taken during the quinquennium affecting changes in the composition of growing stock, cutting regimes, the volume of forest management and road operations to be carried out and expected overhead level, all having an effect after 31 March 1977, enhance the plantation value by £2.4 million.

(d) Of the £22.3 million surplus £19.9 million relates to the net result of trading and other activities undertaken in the quinquennium and this could be expressed as a return of 4.1% in real terms on the notional capital employed. This surplus was almost entirely due to the abnormally high level of timber prices obtained during 1973 and 1974. By the end of the period prices had fallen back to a more normal level and are expected

Notes on the Accounts (*continued*)

to remain fairly constant in real terms over the remaining lives of the existing crops. On the assumption that the discounted value of 3% of future expenditure and income will not vary from the standards set it is considered more appropriate to measure the return in relation to the overall surplus of £22.3 million and express this as a rate of return over the whole rotation. This rate is found to be 0.1% implying an overall return of 3.1% after taking credit for planting and restocking subsidies.

**REPORT OF THE COMPTROLLER AND AUDITOR GENERAL**  
**FORESTRY COMMISSION**  
**FORESTRY ENTERPRISE**

**Quinquennial Review and Revaluation of Assets**

1 The Trading Accounts of the Forestry Enterprise were reconstructed at 1 April 1972 with the intention that at five yearly intervals the assets would be revalued and the performance of the Forestry Commission reviewed in relation to a target rate of return. The broad object of these arrangements was that, after allowing for the non-economic and non-commercial features of the enterprise the Commission's management should be governed by a commercial approach and the return from Forestry assets measured against a fair target. The 1976-77 Accounts are the last in the first quinquennium and the appropriate revaluation and review have been completed. At 1 April 1972 the assets employed, mainly plantations, were revalued to represent a notional capital on which the Commission could be expected to earn 3% in real terms. The form of the annual accounts was revised to show how performance measured up to this target; and the rate of interest charged in the accounts was accordingly limited to 3% and the following subsidies were introduced:

- (i) A forestry subsidy of the difference between interest at current Treasury rates and the 3% charged in the accounts. The value of this, which is not incorporated in the accounts, is provided in the Notes to the Accounts.
- (ii) A planting and restocking subsidy. This was to cover such of these activities as were expected to earn less than the target return. This has been credited to the Plantations Account.
- (iii) A recreation and amenity subsidy to provide recreational facilities for the public for which commercial objectives could not be set. This is credited to the Plantations Account to offset the net expenditure incurred.

Over the quinquennium these three subsidies at the rates used in the accounts amounted to about £93·0 million, £18·8 million and £9·6 million respectively.

2 The quinquennial revaluation of assets, together with the accounts, would provide the basis for appraising whether the Commission had achieved their target over the quinquennium. In the intervening years, the accounts would compare the Commission's standards with the actual costs and income from sales. The Committee of Public Accounts of Session 1974 commented that the new form of accounts should provide a useful means of measuring performance against the standards set for each quinquennium but that, if a worthwhile incentive to increased efficiency was to be set for all the Commission's activities, the plantations must not be undervalued and the target rate of return on the Exchequer's investment must be realistic. The Committee had been given no evidence that the target rate of 3% was reasonable and they suggested that inflation and doubling of timber prices were already casting doubt on the validity of the target. The Treasury and the Commission accepted the need to review the target rate in the light of changing circumstances.

**Review of the rate of return**

3 In Special Note 2 to the 1976-77 Accounts the Commission have given their assessment of the return in real terms on capital employed over the 1972-77

quinquennium. To do this they have compared, at 1977 values, the opening capital and additions thereto (net of subsidies but including interest at 3%) with the assets at 1 April 1977 revalued on the 1972 basis of valuation. The comparison shows that over the five years the Commission achieved a net surplus of £22.3 million above the target rate of 3% on the notional capital. This surplus comprises £2.4 million relating to future benefits and £19.9 million relating to trading and other activities carried out in the quinquennium. The major factor contributing to the surplus was the abnormally high timber selling prices in 1973 and 1974. The Note states that the net surplus of £19.9 million from trading, etc, could be expressed as a 4.1% return compared with the target of 3% but that the Commission consider it more appropriate to measure the return over the whole rotation period of the crops and on this basis they calculate the rate of return to be 3.1% after taking credit for planting and restocking subsidies.

4 The Commission are continuing to use the 3% target in the 1977-82 quinquennium. Bearing in mind the 1972-77 surplus of £22.3 million above this rate and the view of the Committee of Public Accounts that the target should be realistic, I asked the Commission why this rate had been retained. They said that there was no justification for varying the target rate because the 1972-77 surplus had been mainly due to temporarily high timber prices which had since returned to a more normal level and were expected to remain fairly constant in real terms over the remaining lives of the crops. The continuing need for some subsidies on new planting and restocking indicated that the actual rate of return was still below the 3% target and this reinforced their view that the rate should remain unchanged. The Commission considered that, if the view of the Committee of Public Accounts of a realistic return were taken as the achievable rate on good sites close to markets, 3% would still be a realistic target on present evidence. If, however, it meant a rate reflecting the expectation over the whole estate on latest cost and price assumptions, thus largely eliminating the planting and restocking subsidy, 1½ to 2% would be appropriate.

5 I also asked the Commission what significance or importance they attached to the target level of return adopted and what would be the practical implications of adopting any other rate. They informed me that it was significant not only as a target but also because it determined the value of plantations and the associated planting and restocking subsidies for the quinquennium. In 1972 the rate had been set at 3%, the upper level of the range expected from good sites; and for poorer and more remote sites this set a standard for improvement, a purpose which was still relevant in 1977. The implications of adopting a lower rate would be an increase in the plantation valuation, a reduction in the planting and restocking subsidy and an increase in the interest remission (the forestry subsidy). The converse would apply if the new rate were higher.

### **The planting and restocking subsidy**

6 The Commission assured the Committee of Public Accounts of Session 1974 that planting and restocking would not be pursued regardless of the cost of subsidies, and the Committee regarded it as most important that the Treasury should firmly control land acquisitions and planting programmes to avoid open-endedness in their commitment for subsidy. The Commission informed me that the subsidy per hectare calculated for the 1977-82 quinquennium would result in a lower total subsidy in real terms than the 1972-77 subsidy of £28 million at 1977 values. The Commission expected 15% of new planting and



20% of restocking to show a return of 3% or more, compared with 6% and 20% respectively at 1972. They considered that the control being exercised over land acquisition and planting under arrangements agreed with the Treasury during the first quinquennium was satisfactory.

### **Revaluation of the Forestry Enterprise**

7 In their review of the first quinquennium, referred to in paragraph 3 above, the Commission revalued plantations and fixed assets at 1 April 1977 by converting costs and prices to 1977 values to allow for the changing value of the pound, but otherwise retaining the estimates and assumptions used in 1972. The value of assets employed was thus increased from £253·7 million to £446·3 million. In addition, fixed assets, stocks and plantations have now been revalued at 1 April 1977 on revised assumptions about replacement costs and market values, operating costs, selling prices and patterns of growth. This exercise, again carried out for plantations by estimating all future expenditure and revenue and discounting at 3% to 1977 values, has further increased the value of assets employed by £52·1 million to £498·4 million, which is the starting figure on which the Commission will be expected to earn the target rate of return during the 1977–82 quinquennium. The notional capital at 1 April 1977 will consequently be increased by £204·6 million and the Commission regard this as the inevitable consequence of revaluing the assets on a current cost or expectation basis following a period of high inflation and of incorporating revised assumptions about long-term future timber prices and some accounting changes.

### **Form of accounts and standards of performance**

8 The Commission informed me that, on the experience of the 1972–77 quinquennium and taking account of certain improvements being made from 1 April 1977, they believed that the form of the restructured accounts together with the periodic revaluations provided at the present stage of development a satisfactory basis for measuring performance against standards set. The underlying budgetary and financial control system progressively identified during each year variances from standards and enabled any necessary corrective action to be taken.

9 The standards of costs and revenues which will be incorporated in the accounts during the 1977–82 quinquennium are based on the estimates and assumptions made in carrying out the revaluation at 1 April 1977. The Commission intend to adjust these standards annually by an inflation factor and I asked them whether consideration had been given to similarly adjusting them to take account of other changes in such assumptions as market trends and programmes of forestry work. The Commission explained to me that the standards acted as a yardstick against which actual expenditure and income could be compared and variances identified and explained. For the 1977–82 quinquennium the standards were generally expressed in current unit cost/price terms applied to the quantity of work done, any changes in programme thus being taken into account. Once the effect of the changing pound had been removed, any remaining variances would relate to aspects calling for attention, explanation or management action, for example real changes in timber prices and technological changes. In future, standards would be analysed between individual operations and resources and thus improve the Commission's ability to comment on these residual variances.

## Recreational facilities

10 For such recreational facilities as campsites and forestry cabins, which were expected to be commercially viable, a standard equivalent to an annual surplus of 10% on the value of assets employed was set at the beginning of the 1972-77 quinquennium. These are accounted for in the Commercial Recreation Trading Account in Statement 3 of the Accounts. Other facilities such as car parks, picnic places, forest walks and those for specialist activities like motor sports and horse riding, are treated as forest recreation, the net cost of which is accounted for as forest management expenditure in the Plantations Account and met from the recreation and amenity subsidy.

11 The Commercial Recreation Trading Account had an accumulated surplus of £202,398 at the end of the quinquennium after an interest charge of 3%. During the quinquennium, the letting of shooting and fishing rights was reclassified from forestry to commercial recreation retrospectively to April 1972 and over the five years a net income of £384,908 therefrom was credited to the Commercial Recreation Trading Account. No capital was ascribed to shootings and fishings, nor any target surplus set for them, and it was therefore not possible to assess their true profitability. There was a deficit of £94,176 on the operation of campsites and forest cabins, before charging interest, against a standard surplus of £294,433; if initial non-capital expenditure, which was written off, were excluded, this deficit would have become a surplus of £89,527, representing in real terms a return of 2%. The Commission explained that the failure to achieve a 10% return on the operation of campsites and forest cabins was due mainly to the constraints on price increases operative until March 1975 under the Government's Counter-Inflation Policy. A 5.19% return was achieved in 1976-77. The standard for campsite and forest cabin operations in the 1977-82 quinquennium had been reduced to an overall return of 7½%, because the Treasury had accepted the Commission's view that some of the projects were at best only partially commercial. The Commission would, however, aim at 10% on individual projects wherever possible.

12 As an aid to fixing adequate charges and assessing profitability, the Commission prepare memorandum accounts showing all relevant costs for certain recreational facilities, and I asked whether they would extend these arrangements to shootings and fishings, motor sports and horse-riding. The Commission said that from April 1977 expenditure and income relating to shootings and fishings would be shown separately in the Commercial Recreation Trading Account, but it had been agreed with the Treasury not to ascribe any capital to these activities nor set any standard for profitability. The Commission allowed a limited number of car and motor cycle rallies under arrangements with the RAC to take place on forest roads, special charges for which were intended to recover the full cost of any resulting road repairs; but in no sense would the Commission regard this as a commercial function. Horse riding was analogous to orienteering, wayfaring, etc, and as such was considered part of the public's general use of the forests.

D. O. HENLEY

*Comptroller and Auditor General*  
Exchequer and Audit Department  
1 March 1978





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