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Changing Ownership and Management of State Forest Plantations: United Kingdom

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The conference was jointly organised and run by the Department of Water Affairs and Forestry of the South African Government, the UN Food and Agriculture Organisation and the UK Department for International Development. It is anticipated that this case study, together with several other country case studies and an overview, will be published as a book during 2004.

United Kingdom

1.1 Introduction

The UK is a densely populated, industrial country with a large demand for wood products, but only small domestic wood production. There is a small, modern forest-based industry producing a wide range of paper products and wood products. Wood imports meet over 80 per cent of consumption. The inescapable high dependence on imports has in the past raised economic and security issues. As detailed below, these are now less pressing.

The contribution of forestry and the industry based on home-grown wood to Gross Domestic Product is relatively small - indeed, too small to warrant separate identification in the National Accounts. Total employment derived from UK forests at some 30,000 is not significant in a national context (Forestry Statistics, 2001). But forestry employment is important in some remote, sparsely populated areas of Scotland and Wales, which have not benefited from recent changes in the demographic trends in rural areas, where in-migration of businesses and people is beginning to offset the effects of depopulation and relative poverty. For most rural areas, forestry is not now a significant source of employment, and in these its potential is too small for it to be a target of policy.

Over 90 per cent of the land is owned privately. There are no legal obstacles to the sale of land, but the competition between uses – for agriculture, industry, communications, housing, defence, and conservation – is a key factor in deciding the scale and location of forestry. In particular, domestic demand for food products, supported by high prices engineered by the European Union's Common Agriculture Policy, has favoured agriculture. In contrast forestry offers relatively low commercial returns over very long timescales. Left to itself, the market would invest little in wood production. Forests, woods and plantations cover only 11 per cent of the land area, nearly all of which was originally forested.

There are well-developed environmental policies backed by legislation to protect wildlife, landscape, and water. These restrict the scope for new plantations, and increase the costs of exploiting the existing wood resource. UK Governments in the last two decades have also promoted the development of policies to promote sustainable development, which apply to forestry.

Long before the growth of concern about the sustainability of resource use, UK forestry policy had required reforestation of felled plantations as a general rule, with exceptions only for land required for public purposes. Nonetheless, forestry policy has changed much since the start of the last century when forestry first became a matter of public concern. The Government now looks to forestry to contribute to social welfare in several ways: through increased biodiversity, provision of employment in remote rural areas, diversification of farmers' incomes, underpinning forest-based industries, and expansion of recreational opportunities. The state now promotes afforestation, reforestation and forest management practices that serve these aims. A suite of incentives, taxation policies and regulations, discussed below, have been gradually developed and refined to target this complex of objectives. Most recently, the devolution of responsibility for internal affairs to new assemblies in Scotland and Wales, has led to further elaboration of policy. Each country (ie England, Scotland and Wales) now



has its own forestry strategy, which targets the objectives judged to be most useful in its circumstances. The instruments of policy are being modified to reflect these differing strategies.

The UK Government, nonetheless, is still involved in forestry policy. It controls taxation policy, which can have a large impact on the value of a long-lived asset. It is also sponsor of the UK Biodiversity Action Plan, which aims to conserve and enhance biodiversity across the whole of the UK. Forests and plantations are an integral part of this plan. The importance of conserving the biodiversity inherent in the very small remaining areas of natural and semi-natural woods and forests is well appreciated. In addition, there is much scope to increase the contribution of plantations to biodiversity through diversification of species and age structure.

In the last 5 years, the Government has focused attention on achieving well-managed forests through the development and monitoring of standards of management. The FC has published a UK Forestry Standard. It has also supported the development of a voluntary and wider set of standards, the Woodland Assurance Standard. The State and some privately-owned plantations and forests are managed to meet this standard.

The gradual development of a complex forestry policy, with multiple objectives, can be seen as an attempt to satisfy a multiplicity of interests. Private owners of plantations have sought economic benefits: income and capital appreciation. They have also used their plantations for field sports. The forest-based industry has been most concerned to secure a reliable supply of suitable wood. Many people have taken up the opportunities plantations offer for outdoor recreation. In the densely settled South, where most private land is closed to the public, and there are only rights of way available for public access, the state-owned woodland and plantations have been much used for the simple pastime of walking the dog. Farmers have been reluctant to see land taken out of agriculture, fearing a weakening of the local farming economy; but they took advantage of the opportunity to create small woods on their farms when the Government introduced a scheme tailored to their circumstances. Similarly, environmental NGOs have opposed the conversion of upland pasture to plantations of non-native species of trees; but have welcomed planting of new native woods and forests and encouraged owners to develop the potential of the plantations for biodiversity. The history of state-owned and private plantations reflects the interactions of these interests.

1.2 A brief history of State-owned and private plantations

The centuries long and almost uninterrupted trend of deforestation in favour of agriculture, industry and settlements, had led by 1900 to only 5% of the UK land area being under trees, with an industrial economy almost completely dependent upon wood imports. The First World War exposed the risks of relying on imports for what was then an essential industrial resource. The main motive for establishing in 1919 a state agency, the Forestry Commission, to promote afforestation was thus national defence. A secondary reason was the opportunity to increase rural industry and employment at a time of economic malaise.

From the outset, the FC set ambitious targets for reforestation and afforestation. To promote restoration of depleted forests, the FC provided advice and encouragement to private owners who could qualify for management grants if they undertook to manage their forests in an approved manner. The FC was given power to control felling through a licence system to prevent further loss of standing trees.

The FC took the lead in developing the techniques of plantation establishment, management and exploitation. It found that North American conifer species grew well in the moist British climate. Only marginal land of very low productivity was available on a large scale for afforestation; the FC developed methods of getting trees to grow despite nutrient deficiencies. At the beginning, the practice was for foresters to make a careful choice of species to match the site, using native species of herbs and grasses as indicators of soil quality. Later, however, it became possible to change the soil's physical and chemical properties - through draining, cultivation, and fertilizing - to grow the most productive species, usually Sitka spruce, Douglas fir, Hybrid larch or Corsican pine. This radical simplification of forestry practice increased yields, reduced net costs, and improved the marketability

of the wood produced. But is also led later to conflicts with a public becoming increasingly concerned about environmental damage to the countryside.

The FC aimed to meet the targets for afforestation by buying land for planting itself, and through incentives for private owners to plant. These planting grants were needed to compensate for the low rate of return on afforestation. As there was negligible planting without grants, the FC was able to control the nature and location of afforestation, which was not subject to the planning controls on development exercised by local government. However, for much of the period, planting on productive land was prohibited, reflecting the priority given to policies for increasing domestic food production.

Thus the FC was able to control felling and planting and influence management. Over time, in response to increasing concern about the scale of land use change and its impact on the countryside, with growing opposition to large-scale afforestation with non-native conifers, a set of controls was elaborated to mitigate environmental damage. The FC developed a system of consultation with local governments, agriculture departments, environmental agencies and NGOs, and eventually the public generally, in an attempt to reconcile conflicts. Mandatory environmental impact assessment of large-scale afforestation proposals was introduced in 1989.

These policies, to a degree successful, came under increasing strain in the 1980s because the rate of private sector afforestation increased rapidly, the result of a very favourable tax regime, under which the costs of afforestation were very largely subsidised by the Exchequer (ie the taxpayer). Like the FC at that time, the private sector concentrated mainly on large-scale afforestation with non-native conifers. With tax relief as the main driver, the official incentive scheme offering planting grants was reduced to a minor supplement; its main function became the control of an engine that seemed to those concerned about the conversion of unimproved land to have become an unstoppable juggernaut. Forestry became at this time a focus of bitter conflict.

The Government reviewed the tax and grant regimes for private forestry in 1988. It eliminated the powerful tax incentive for planting (under which forestry operations qualified for tax relief while income and capital appreciation were almost tax-free) by the simple expedient of taking forestry out of the income tax system. To compensate for the large reduction this produced in the incentive to plant, the planting grants were increased substantially. These were tailored to promote a much wider range of plantation types: there was more emphasis on broadleaves, small scale woods, community woods offering public access, and re-creation of woods and forests of native species; and correspondingly less on large-scale afforestation of unimproved land with non-native species.

The FC's own afforestation programme was sustained from 1920 to about 1990. The Government financed the purchase of land and the costs of planting. In the years up to about 1960, the need to increase self-sufficiency against the possibility of a future war remained the main objective. Then it was recognised that the great improvement in the relations between the large states of Western Europe, and the development of nuclear weapons, made this security objective obsolete.

Afforestation continued, however. Forestry seemed able to contribute to employment in rural areas, increasingly suffering from depopulation and relative poverty as the agricultural workforce fell rapidly in response to the technological advances in farming productivity. The same forces – very large increases in labour productivity resulting from mechanisation (chainsaws, tractors, harvesters, etc) – have now reduced forestry employment in a similar way.

Afforestation by the state came to an end with the advent of a government convinced that the private sector was a better manager of commercial businesses, which ought to be moved out of the public sector. The FC began a programme of disinvestment, discussed below.

Table 0.1. State and private new planting since 1920/21

000 hectares

5 Year Period	State	Private	Total
1920/21 - 1924/25	15.3	12.7	28.0

1925/26 - 1929/30	32.4	12.7	45.1
1930/31 - 1934/35	34.3	10.8	45.2
1935/36 - 1939/40	39.1	10.0	49.1
1940/41 - 1944/45	20.3	7.8	28.1
1945/46 - 1949/50	46.7	19.5	66.3
1950/51 - 1954/55	82.7	29.2	111.9
1955/56 - 1959/60	71.7	57.8	129.5
1960/61 - 1964/65	85.4	63.2	148.6
1965/66 - 1969/70	79.8	62.4	142.3
1970/71 - 1974/75	102.6	95.8	198.3
1975/76 - 1979/80	74.5	39.4	113.9
1980/81 - 1984/85	45.0	66.1	111.1
1985/86 - 1989/90	22.8	102.5	125.3
1990/91 - 1994/95	11.1	78.9	90.0
1995/96 - 1999/00	1.2	79.3	80.5

Up to and including 1924 State figures include Crown woods under the technical supervision of the Forestry Commission.

Up to and including 1937 Private figures include planting work done in connection with Proceeds Sharing Schemes initiated by Development Commissioners.

Up to 1967 the financial year ended 30 September. From 1969 year was to 31 March so the period 1966 to 1970 above only covers 4¹/₂ from 1 October 1965 to 31 March 1970.

Up to and including 1970 Private Woodlands figures are for ALL planting (new planting + restocking).

The policy of a state-led partnership with the private sector succeeded in establishing over 1.5 million hectares of new plantations, mainly softwoods of non-native species. When added to the long-established woods and forests in private ownership, these have raised the area under trees to 11% of the total land area. The private sector has about two-thirds of this. However, the main change has been in state-owned plantations, which increased from nothing to 0.9 million hectares - the biggest single change in land ownership and use in the UK in modern times.

Wood production has increased from a negligible amount to 10 million m³, and now supplies 15% of the domestic demand (Forestry Statistics, 2001). The steady growth in wood production from the maturing plantations presented an opportunity to promote regional industrial development. Up until about 1980, UK governments promoted industrial growth in economically depressed regions by offering capital grants to inward investment. Using these, and drawing on its ability to offer secure long-term supplies of wood, the FC was able to stimulate the development of a modern, large-scale

processing industry. In this way, wood-based industries were attracted to exploit the new resource and its proximity to a large market. There are now 4 large pulp and paper mills, over 300 sawmills, and 9 wood-based panel factories, in addition to small-scale producers of fencing and other wood products.

As outlined above, the State came to own, through the FC, nearly 1 million hectares of mainly softwood plantations. It had been envisaged from the outset that the investment by the state in its own plantations would – eventually – produce a return. By 1990, the FC's wood production had become substantial and the domestic market was well developed. It seemed reasonable to the Treasury and the FC to look for a positive return. Easily said; but it was difficult even to measure the return on investments made over many decades. There was also the complication that the FC carried out departmental, regulatory and promotional functions as well as managing the state-owned plantations, with the staff dividing their time between these activities. Allocating costs between the commercial operations of plantation management and the non-profit making governmental functions was an arbitrary exercise.

A solution to these issues was found as an outcome of the review of the future of the state-owned plantations, discussed below. A new agency, Forest Enterprise (FE), was carved out of the FC, and made answerable to it for the management of its plantations with no distracting departmental, regulatory or other functions. Its function is to manage the state-owned plantations and forests to a set of objectives specified by the Government, for production, recreation, biodiversity, and landscape conservation, as well as efficiency and profitability. It contracts out planting, harvesting and other forest operations, employs contractors on the work it manages itself, and negotiates contracts with wood-using companies. It has withdrawn completely from manufacturing operations (which were never substantial) and it has divested itself of small and remote plantations that were relatively costly to manage. In general, it uses the private sector whenever the relative costs indicate it would be beneficial.

The private sector has also increased its supply of wood to industry. It owns nearly 2 million hectares some is long established broadleaved woodland of low productivity; but there is also a large area of broadleaved and conifer plantations supplying wood to industry (Forestry Statistics, 2001). Many of the plantations are owned as investments, and managed by professional managers who use contractors for forest operations. As well as encouraging the growth of demand for wood produced in the UK, the existence of a substantial state-owned plantation sector helped initially to develop private contracting businesses and provided experienced plantation managers. These services are now well established and no longer depend upon the state.

The main current influence of the FC on the private sector is through felling and planting controls, and grants for planting, restocking and management which enable it to promote and regulate planting, felling and forest management. Much of the current new planting is aimed at biodiversity, landscape, sporting, and recreational objectives. The FC also undertakes the bulk of the research into new technologies, which remains largely financed by the government.

Box 1. Development of the FC through the 20th century

- ❑ 1920s-1950s – Forestry Commission established. Primary objective to create a strategic reserve timber that could be drawn from in the event of war. Powers to acquire and develop land, and to support private sector afforestation with grants. Forestry Commission estate 1.00 million hectares by 1960.
- ❑ 1940s-1960s – Post Second World War concerns for protection of wild spaces, creation of national parks and increasing demands for outdoor recreation. Forestry Commission responds with a recreation and social agenda, eg Forest Parks. Forestry Commission estate 1.19 million hectares by 1970.
- ❑ 1960s-1970s – Increasing provision for access and recreation. Impacts of forestry on the visual landscape starting to be recognised. Landscape appraisal and forest visual design becoming standard practice on the FC's estate by 1980. Private sector afforestation takes off, driven by

tax incentives and grant-aid. Major forest policy review concludes that government support for forestry is justified only after non-timber benefits are brought into the equation. Forestry Commission estate 1.26 million hectares by 1980.

- 1980s – Privatisation agenda. Forestry Commission begins disposing of forests and reduces its afforestation programme; private sector becomes the main afforestation agent. Environmental agenda builds as opposition to continued loss of semi-natural woodland and afforestation of ecologically valuable habitats becomes better organised. Forestry Commission publishes the first in a set of best practice guidelines, but unable to enforce implementation in the private sector. Tax breaks for forestry abolished, support to the private sector continues through grant aid conditional on compliance with best practice. Concept of forest management for multiple benefits becomes firmly established. Forestry Commission estate 1.14 million hectares by 1990.
- 1990s – Forests’ role as an agent for sustainable development begins to emerge. Conflicts between Forestry Commission’s support and enforcement functions and its role as manager of the nation’s public forests addressed by establishing Forest Enterprise as a separate division. Move to privatisation blocked by concerted opposition from non-governmental organisations; Forest Enterprise established as an agency of the Forestry Commission. Pressure on timber prices forces business efficiency, downsizing and search for partnerships. Devolution to Scotland and Wales accelerates devolution within Forest Enterprise; programmes developed at regional level in response to the agendas of the devolved administrations.

1.3 Evolving demands

The long-run trends in the UK economy are for increasing predominance of services at the expense of agriculture and manufacturing. The UK’s economy has come to depend less on industry, and industry has become more economical in the use of raw materials, including wood.

Demand for wood in the UK grew slowly through the period of industrialisation, and has now stabilised at 45-50 million cubic metres a year, or about 1 cubic metre per head (Forestry Statistics, 2001). UK wood production is increasing with the progressive maturing of the new plantations, and now meets 15% of total consumption. There is the potential to increase domestic production further, displacing imported wood products. However, prices are set by imports in a free market; recent trends are markedly down, with serious consequences for the profitability of commercial forestry.

The upshot is that forestry’s importance as a supplier of raw materials has declined. Indeed, forestry is now so unprofitable as to raise issues about the value of plantations for solely commercial purposes. Tight control of costs is more important than ever.

In contrast, there has been a growing demand for outdoor recreation. With the growth of car-ownership, leisure time and personal incomes, the forests have become more valuable as recreational resources. The main demand is just for access for walking: in densely settled areas, private land is usually closed to the public. In addition, a wide range of traditional and new outdoor activities take advantage of the forests - orienteering, car rallying, cross-country cycling, fishing, wildlife observation, ski-ing, horse-riding, trekking. Recent surveys show some 300-400 million visits a year to forests in Great Britain. (Forestry Statistics, 2001).

The second major change in demand on forests has come from the huge increase in the perception of the value of environmental services, such as biodiversity protection, landscape beauty, and carbon sequestration. The impacts have been complex, affecting afforestation and forest management.

Thus, land that is agriculturally poor, and was once seen as eminently suitable for commercial re-afforestation, is now appreciated for its intrinsic conservation value as compared to the intensively farmed “deserts” of modern agri-business; it is at least “semi-natural”. It would be judged as more valuable ecologically in its current use as rough pasture than under a plantation of one or two non-native species of conifer. However, much of the area of rough grazing was once forest. Planting of trees to restore these native woods is generally welcomed. The environmental pressure is for re-creating some of the lost indigenous woods and forests on farmed land.

The same pressure bears on plantations on ancient woodland sites. Where some of the original ecosystem remains, there are opportunities to replace exotic tree species with native trees, along with the re-introduction of the characteristic flora. The reduced commercial value of the timber has strengthened the case for restoration: there is less to lose.

The uniformity of the new plantations was much criticised. Lacking diversity, they were poor habitats for wildlife. They were also often intrusive in the upland landscape. Action taken to diversify tree species and age structure as the plantations are managed and regenerated, and to take opportunities to harmonise them with the landscape, has been welcomed.

The new plantations were found to have adverse impacts on water quality and quantity on some sites. They helped cause acidification of rivers and streams by capturing acid particulates from the atmosphere and channelling them into watercourses. Unplanted buffer zones between the plantation and the streams running through it ameliorate this effect.

The improved drainage required for tree establishment has led to more rapid run-off with an increased load of soil, causing increased turbidity of watercourses. Again, techniques have been devised to slow down run-off and reduce this damage.

Tree planting of all kinds, including plantations of exotic species, adds to carbon sequestration. Under the Kyoto protocol, additional woodland planted since 1990 contributes to the UK's carbon dioxide emissions target by removing carbon from the air. The amounts are relatively modest. In a developed and densely settled country, it seems that carbon lock-up by forests can have only a minor role, albeit positive and welcome.

More vaguely, but perhaps of most importance, there has been growing public appreciation of woods and forests as desirable in themselves. Charitable trusts aimed at improving woods and creating new ones have attracted voluntary support. Wildlife NGOs have got involved in forest management. Ownership of woods and forests by organisations and individuals for non-commercial purposes is increasing. The public is generally favourable, but opposition to large, uniform plantations of conifers has remained as a legacy of past forestry practices.

Along with the changes in forestry practice has gone an enormous increase in public involvement in State forestry. FC managers consult panels of experts and other interests, many forests have some kind of partnership involving local people, and the FC itself is a partner with environmental NGOs in a variety of projects. The upshot is that the FC is now trusted with the long-term stewardship of the land it manages; and this is an important factor in any debate about privatisation.

The evolving demands are mainly for services provided by plantations outside the market. Their increasing importance contrasts with the reduced profitability of investments in plantations. Indeed, low profitability is a systematic problem for afforestation in environments where tree crops take 40 or more years to mature.

If the domestic market is open to trade with no or low customs duties (as it should be according to free market economics), prices are set by imports. These will come from exploitation of natural forests and from environments where trees grow more quickly. In the former case, no initial investment in afforestation is required; and in the latter, it produces an earlier return. So, despite its suitability for forestry, the UK does not have a comparative advantage for afforestation as a commercial investment, at present. Rates of return are low.

It follows that a subsidy is needed to stimulate planting by the private sector, and public finance must be provided if the afforestation is carried out by the state. Both these need some justification. The history of British forestry shows that a range of "public good" reasons has been called upon to support the case for state aid to increase the country's wood resource.

The original *raison d'être* for afforestation - national security - is no longer relevant. Forestry as a provider of employment is not now a main factor. Its importance as a source of raw material has declined, and so also has the financial return from timber sales. But the plantations are valuable as recreational resources. And they have the potential to increase biodiversity. Environmental pressures have increased the costs of operation and reduced the scope for new plantations aimed at commercial objectives. In contrast, they have favoured creation and restoration of native woods (of low timber

productivity), and modification of plantations to make them more diverse, and thus more valuable as recreational and wildlife resources; but again this also increases costs and reduces productivity. Carbon sequestration is valued by the government, but does not contribute to the forest owner's income, although it may be considered to be part of the rationale for planting grants. The public attitude is generally favourable to forestry, but opposition to large-scale land use change remains.

The broader context of economic policy has also changed. UK Governments now follow free-market economic policies: operation of commercial businesses should be in the private sector; the state's role is to maintain a stable currency, and to provide for regulation where needed. The regulator must be impartial and independent of the businesses it oversees. Any intervention by the state to promote an activity should be justified by the public benefits it would achieve, benefits not being delivered by private agents acting in pursuit of their own interests. This emphasis on market economics has also influenced the roles of the FC and private owners.

1.4 Changing roles

For most of the 20th century the Forestry Commission, as the state's agency for promoting forestry in a deforested country, was accepted as at first pioneering the development of forestry, and then leading the forest industry. It developed techniques across the range of forest operations – nurseries, afforestation, forest management, harvesting and marketing practices - and sought to transfer them to the private sector. As the largest owner of commercial plantations, it took the lead in promoting investment in forest-based industries, mainly through contracts guaranteeing supply at competitive prices. The private sector generally welcomed the state's role as leader and provider of technology, incentives, advice, market development and political "cover".

With the maturing of state and private plantations, and the shift from national security to commercial, social and environmental objectives, the role of the state has had to be thoroughly reviewed. The changes have been in the FC's roles in plantation ownership, afforestation, promotion and regulation.

In recent years economic policy has been the main driver affecting the FC's role in afforestation and plantation ownership. Governments now see the private sector as generally better placed to secure efficient management of commercial assets. The private sector usually has greater freedom in raising capital, greater flexibility in hiring and using staff, greater alertness to changes in markets, a more entrepreneurial approach to exploiting assets, and is less open to political interference in commercial decisions. Accordingly, emphasis has switched to encouraging planting by the private sector. The Commission's holdings have been reduced to rationalise its structure in the interests of efficiency. The disinvestment has been modest – about 10 per cent of the area of state-owned plantations has been sold to the private sector, but more significant in the number of small plantations transferred. Experience was that a large state agency could not manage small plantations as cost-effectively as a private owner (often a neighbouring landowner able to integrate the plantations bought from the FC with his existing estate).

However, in opposition to this pressure to transfer to the private sector has been the growing value of the state plantations as recreational and environmental resources, the outcome of the measures the FC had taken to promote access, recreation and biodiversity. In the most recent review of the future of the Forestry Commission's plantations, public access for recreation was a major factor.

Environmental NGOs and others also believed that the Commission would be more effective in increasing the biodiversity of forests originally established as single species plantations. To meet these concerns the Government introduced schemes to encourage private owners to provide public access and to increase the wildlife and recreational value of their plantations. These use a novel approach. Private landowners are invited to bid for cash in exchange for provision of public services, such as access, biodiversity or landscape enhancement. The bidder specifies the amount he wants. The FC judges which bids offer the best value for money. So far, these have had only modest effect. Private owners may prefer the freedom to manage and exploit their plantations to meet their own objectives, unimpeded by the wishes of the public and environmental pressure groups. But it is of course a long-term business.

The FC's roles as promoter and regulator have also evolved, partly in response to the changing demands on the plantations, and partly reflecting the new economic policy's focus on impartial regulation. The radical changes in the grant schemes for planting, management and restoration of woods illustrates how the FC has moved from being a promoter of commercial forestry to a role as an agency encouraging the development of forestry to meet social and environmental objectives. Being at the centre of a wide-ranging consultation and approval process for felling and planting trees, it has become a regulator with the duty of balancing and reconciling conflicting interests and preventing environmental damage. Where it judges it necessary, it can require an environmental assessment: and it has the power, if not satisfied, to refuse approval to plant.

This change in the FC's role seems to have been welcomed. However, an intriguing recent development in the perception of the role of the state in forest regulation is the promotion of voluntary standards by the World Wildlife Fund through the Forest Stewardship Council. The FSC aims to protect forests through an accreditation process that, after inspection, confers a badge of responsible forest management. This badge confers an advantage in markets where environmentally concerned buyers wish to be assured that their purchases are not harming forests. Although the main targets are countries where national forests are suffering rapid rates of deforestation, the scheme is open to forest owners everywhere. In the UK, the FC, private owners and NGOs have worked with the FSC to produce the Woodland Assurance Standard, which is based on the FC's National Forestry Standard, extended to cover more aspects of forest management. The FC and some private owners have signed up.

Those in favour of this initiative see it as offering greater assurance of responsible forest management. In the view of the author, it is unnecessary: UK forests are not at risk, deforestation is not a problem, and the National Forestry Standard gives an assurance that forests are being well-managed. However, while there may be differing views as to its future value, there is no doubt that it introduces more complexity and uncertainty into forest management. Capital markets naturally prefer simplicity and certainty, so its effect on plantation values is likely to be adverse. This is the point of relevance when judging the prospects for privatisation.

The Woodland Assurance Standard may in time come to take over some of the FC's duties in forestry regulation. For the time being, the FC remains as the industry's regulator. Its role has been reflected through a change in its structure.

1.5 Balancing acts - reconciling public policy objectives and private sector investment

The changes in the structure of the FC came as a result of the Government's review in 1994 of the case for privatising its plantations. This review illustrates how it sought to reconcile policy objectives for forestry with its economic policies favouring competition and the private sector. The review was not published: but the Government consulted widely, and it is possible to identify the key considerations.

The principal options for the state-owned plantations were:

- Sale, singly or as a whole;
- Incorporation as one or more going concerns with a view to a flotation; and
- Creation of a state agency charged with management to meet commercial, social and environmental objectives.

Other options that were in the air at the time included sale and leaseback to the FC of plantations, and selling long-term cutting rights with the land remaining in state ownership. Neither of these seems to offer any particular advantages over the main options to compensate for the additional complexities and uncertainties they would introduce into forest management.

Sale of all the plantations to one or a few buyers would be problematic. Because of the sheer scale of the transaction, there would be few bidders. It would also worry the wood processing industry: it preferred to deal with the supplier it knew rather than face one or a few new powerful players in the

wood market. Some companies considered they might have to bid themselves to avoid losing security of wood supply: for them, an unwelcome tying-up of capital they could use more profitably developing their businesses. As they had a direct interest in a sustainable wood supply and, in some cases, experience of owning and managing forests in other countries, they might have become responsible forest owners in the UK. But they were not keen.

Sale of plantations singly or in small groups would be more feasible. The market was already developed, and the consequences for wood supply were not threatening. However, it would obviously take a very long time to sell 1 million hectares.

Incorporation presented practical problems. As the FC's commercial operations were mixed up not only with unremunerative recreational and biodiversity projects, but also with its departmental, regulatory and promotional activities, it was well nigh impossible to assess the potential profitability of a stand-alone forestry corporation (or two or three of them). The financial information needed for a stock market valuation as a preliminary to a flotation - annual accounts in a commercial format for 3 years - was not available. As experience in Sweden, New Zealand and South Africa shows, it takes several years to extract a commercial forestry corporation out of a government department, with their different accounting systems, objectives, staff structures and corporate cultures. The new corporation must then operate successfully for several years to build up a track record. The low rate of return on commercial forestry suggested that this would be difficult. The corporation would depend on subsidies being continued indefinitely.

The realistic timescale for major improvements in large organisations is long, not as long as the timescale for creating new forests, but far longer than the pressures of politics usually favour. In addition, as noted below, privatisation was very controversial; it was doubtful if a project over, say, 10 years could have been sustained.

The opposition to privatisation came from forest users, the environmental NGOs, private owners, as well as the wood-based industry. There was much concern about the likelihood of loss of access, highly valued in densely populated areas. Also the Commission had made much more progress in increasing the biodiversity of plantations. Partly, this was because they were older, and thus easier to diversify at the stage of felling and regeneration through changing species, age-structure and layout. But also, the Forestry Commission had explicitly adopted wildlife and landscape enhancement as targets and was evidently taking them seriously, whereas the environmental movement feared that the profit motive would dominate private sector management. It expected it to be easier to apply pressure on a state agency than on a large number of private owners. The wood processing industry preferred the devil it knew, for the reasons set out above. There was therefore a large political opposition to privatisation set against the practical difficulties of a wholesale disposal of the state-owned plantations.

The outcome of the review, and subsequent developments, show the Government achieving some of its broader economic objectives, while maintaining the provision of non-marketed benefits:

- Regulation was separated from forest operations within the FC by setting up separate agencies - the Forestry Authority as regulator and the Forest Enterprise - with clearly distinguished roles and objectives.
- Efficiency was pursued through the setting of financial and economic objectives for Forest Enterprise, as the agency charged with managing the state forest estate.
- The programme of rationalisation through sale of plantations costly to manage because of their size and/or location, and not highly valued for other benefits, such as recreation or biodiversity, was extended.
- A new scheme to encourage private owners to provide access was introduced. This complemented the earlier changes in the grants for planting to promote broadleaves, native woodlands, diversification of species, and greater attention to landscape impacts.
- The reorganisation of the Forestry Commission was followed by a review of its structure that led to a reduction in its staff numbers and reduced costs.

To date this accommodation seems to have been accepted as a workable compromise between the drive for increased efficiency and the public interest in access, landscape, and biodiversity. It is notable for what it achieved, what it might achieve, and what it rejected.

Regulation is effectively separated from management. Privatisation is proceeding in a fashion that does not threaten other benefits. Efficiency has been improved within the FC. These are valuable achievements.

The private sector has responded to the changed grant system by planting much more diverse woods. Public access has benefited from the access agreements and creation of community woodlands. The uniform plantations are being diversified as they are regenerated through the grant schemes. These are open-ended processes, already with some achievements to their credit and with the possibility of making substantial improvements if sustained over the long term.

But the bulk of the state-owned plantations remain in public ownership. The sales programme is too limited to produce a major change. It could be expanded in the future. An obvious option is to seek to transfer production forests to some of the large wood processing companies. As noted above, they have experience of forest management and an interest in a secure wood supply. Given their access to finance, and their wish to maintain a reputation for environmental friendliness, it seems likely that they would be competent and responsible managers of forests.

Another possibility is to contract out management of plantations or groups of plantations. However, this achieves little, as the assets remain in State ownership and the private sector managers are not in general more competent than the Forest Enterprise. It suffers from a major disadvantage where the forest is to be managed for multiple benefits. The management contract then becomes complex in an attempt to specify in advance how, for example, production is to be traded against biodiversity over a long period. This is particularly so for the task of developing an even-aged plantation into a diverse forest, which requires a management plan executed over several decades. In such cases, short-term management contracts (say, 5 years) are not long enough to show results; and a very long contract defeats the object of using the private sector to increase competition. In the UK, this approach is seen as bringing more problems than it solves. The FC has instead adopted a culture in which its forest managers are encouraged to seek out cost-effective opportunities to diversify plantations. In this respect, it is still a pioneer.

1.6 Guidance

From the UK experience we can extract some useful pointers on:

- Assessing the scale, the costs and the benefits of privatisation;
- The merits of the options for wholesale privatisation; and
- Ways of increasing private sector participation short of total privatisation.

ASSESSING THE SCALE, COSTS AND BENEFITS

Two factors are of major importance in the assessment of potential benefits and costs.

- (i) The intrinsic profitability of commercial forestry. If r is lower than the usual rate expected from long term investments, the interest of private sector will be small, and may be only from those wishing to asset-strip, with a quick exit. The Government may have to promise to keep paying subsidies, promises that are usually discounted. The best approach will then be to seek out potential owners with a direct interest in wood production and other plantation products and services.
- (ii) If the rate of return is high, privatisation has a much better chance of success. The importance of the non-marketed services provided by the plantations. The more these are valued, and the more diverse and widespread they are, the greater the difficulty and cost of ensuring that they are maintained. At some level, difficult to specify precisely, but nonetheless clearly there, these costs will exceed the benefits from privatisation.

Within these parameters, the Government should be clear what it is aiming to achieve. Benefits from privatization may include:

- ❑ A one-off capital sum,
- ❑ Reduced annual budgets for the forestry agency,
- ❑ Higher returns from wood production,
- ❑ Lower costs of operation,
- ❑ New markets for wood,
- ❑ New enterprises exploiting the plantations.

The costs may include:

- ❑ Reduced provision of free social and environmental services,
- ❑ Increased costs of supervision by the state forestry authority,
- ❑ Increased public expenditure on subsidies,
- ❑ Disruption to wood supply and the wood-based industries,
- ❑ Public disquiet.

A broad assessment of these will show whether privatisation is worth pursuing.

OPTIONS FOR WHOLESALE PRIVATISATION

The two main options are incorporation and sale of the plantations as one or a few lots.

Incorporation would take many years to effect. If the rate of return on plantations is low, the privatised corporation would (and would be seen to) depend on continuing subsidies, whose future level cannot be guaranteed. It would be an uphill struggle. Its strategy would have to be to move quickly into more profitable downstream businesses. This could be seen as either disrupting existing wood processing businesses or injecting some valuable competition into the market for wood products. A probable outcome is that the existing businesses would seek to get more control of wood supply.

If the rate of return is high, the prospects for the privatised corporation would be better. It would even so probably seek to expand by developing or taking over wood processing businesses. Potential monopoly power may then be a problem that has to be addressed.

Sale of a large share of a country's wood production potential to one or a few new owners threatens the wood supplies of the processors. As above, a low rate of return and dependence on future levels of subsidy makes these companies reluctant to commit capital to acquiring plantations. They could perhaps be manoeuvred into becoming owners, if faced with the unpalatable prospect of control of their essential raw material passing to potential competitors. They would then be paying for the security of supply currently provided free by the State.

In an environment where the rate of return is good, of course, this should not be a problem. Wood processors may then be keen to acquire their wood supply. Either way, as owners, they bring the advantage of a continuing interest in sustaining the resource.

Given a transfer to the private sector, the UK experience is that a system of controls on felling, planting and replanting, with grants to compensate for low returns and/or negative impacts on profitability, can ensure that private forests are managed responsibly and without environmental damage. The systems must be competently and honestly administered, with consultation with other affected interests. The costs of this type of system are substantial. Other interests may nonetheless prefer that plantations remain with a public agency that is more open to political pressure and less profit-motivated.

Merely maintaining the level of non-market services may not be good enough. The aim may be, as in the UK, for increased biodiversity and social services. While a system of controls, grants and consultation can ensure responsible forest management, moving private owners to the next stage – an

imaginative development of plantations to increase public benefits – is more problematic. Discretionary grant schemes may supply the answer, or voluntary certification; but it is too soon to judge the effectiveness of these approaches. But it is clear that privatisation does present the forestry authority with new or increased problems of regulation and promotion. In contrast, a public agency with an approved mandate is a direct means of achieving these goals.

OTHER WAYS OF INCREASING PRIVATE SECTOR PARTICIPATION

From the UK experience, there are several ways of increasing private sector involvement that can work well and do not raise awkward problems:

- ❑ Contract out felling (harvesting) and restocking (regeneration) Provided that operations are supervised competently there is no significant loss, and there can be benefits from exploiting the private sector's drive to increase efficiency. The FC found that the staff managing the contracts needed training. It was also necessary to encourage workers to set up as contractors through contracts tailored to their capacity or financial circumstances.
- ❑ Privatised some nurseries. These small-scale operations are essentially similar to those already operating in horticulture, so skills may already be available in the private sector. Note, however, that the success of plantation establishment and restocking depends crucially on the quality of the young transplants supplied from the nursery. Contracts for supply must therefore specify both quality and handling of the seedlings sent to the forest, and deliveries to the site need careful inspection.
- ❑ Sell plantations that are costly to manage and not of much value to other users. The process is to identify those with high costs of management (for example, because they are small, distant from the forester's base, have poor access), and low actual or potential value for social or environmental services. It may be necessary to develop a market and set reserve prices to get a good return from the sale. There is scope for corruption so methods of sale need to be transparent, eg public auction using independent land agents.
- ❑ The restructuring of the FC to separate regulation from forest management has also been successful and is not now contentious. The process is to set up agencies for regulation and forest management within the Ministry of Forestry, and give them clear roles and objectives. Experience in the UK is that there can be substantial gains in efficiency and effectiveness from this step on its own. It allows for a narrower focus on work objectives, removes distractions, and facilitates the setting of targets and measurement of performance. So it is worth doing on its own account, even if the state-owned plantations are not being privatised.

1.7 Conclusions and ways forward

Privatisation of state-owned plantations is likely to be a publicly contentious policy. Numerous interests can be affected: local people using the plantation, environmental NGOs, the forest-based industry worried about future contracts for supply; and the state forestry service will be reluctant to accept a reduced or changed role. The government should be clear about what it seeks to achieve, and what it needs to avoid. Consultation with those affected can help reduce adverse impacts (and opposition).

The private sector will usually have greater flexibility, better access to finance, fewer restrictions, more drive, clearer objectives - although these may conflict with public interests such as continued use by local people and protection of wildlife. There are ways of reducing adverse impacts - through selection of plantations, specific incentive schemes and the regulations - but at a cost.

The broad conclusion of the review and subsequent public discussion is that purely commercial plantations can be managed at least as well, and probably more efficiently, by the private sector; but that plantations with important public interest aspects are safer at present with the state forest service. Measures to ensure that these public interests would be safeguarded by the private sector are quite well-established; but getting the private sector to develop plantations into diverse forests supplying

increased social and environmental services is much more difficult. Until this is shown to be feasible, it seems unlikely that wholesale privatisation of all the state-owned plantations will be an option in the UK. Nonetheless, there are opportunities short of total privatisation to use the private sector, which can be beneficial.

1.8 Acknowledgement

I am very grateful for many illuminating comments from my onetime colleagues in the Forestry Commission. The views expressed are my own.