



PRIME MINISTER

I enclose the text of this document which we propose to publish at the end of May as the UK's formal response to the World Conservation Strategy.

The Strategy was published in 1980 by the International Union for Conservation of Nature and Natural Resources in co-operation with the United Nations Environmental Programme and the World Wildlife Fund. We warmly welcomed the Strategy since it argued powerfully and realistically for policies which encourage development while ensuring that the fabric of the natural environment itself is not damaged. This theme of "sustainable development" echoes and reinforces our own approach.

The Strategy calls on national Governments to develop their own policies in line with the principles it has established, and we have been under growing pressure from conservationists to issue a formal response to the Strategy. I believe it is in our interest to do so; we have a good record and our policies to reconcile sensible development with environmental care deserve greater recognition.

The publication of our response (as a well-designed glossy booklet) will be an opportunity for us to make a major statement of our policy. Publication is timed to coincide with a conference sponsored by the authors of the Strategy on the theme "Conservation and Development: Implementing the World Conservation Strategy" to be held in Ottawa. William Waldegrave hopes to attend. The response itself is addressed to those who are closely involved in conservation matters both at home and abroad, and we have aimed therefore at a balanced document which is positive without being complacent. But we are also preparing a shorter "popular" version which is designed to reach a much wider audience.



Colleagues have been consulted about the response and I am grateful for the many helpful comments and suggestions made. I am glad to say that they endorse its terms. It would undoubtedly add greatly to the impact of the response if you felt able to contribute a personal preface or message; I attach a possible draft which you may wish to consider.

I am sending copies of this letter, with the final version of the Response to the Lord President, the Foreign Secretary, the Secretaries of State for Energy, Education, Employment, Trade and Industry, Transport, Scotland, Northern Ireland and Wales, the Chief Secretary to the Treasury, the Chancellor of the Duchy of Lancaster and to Sir Robert Armstrong.

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CONSERVATION AND DEVELOPMENT - THE BRITISH APPROACH

The United Kingdom Government's Response to the World Conservation Strategy

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FOREWORD FROM THE SECRETARY OF STATE

The World Conservation Strategy presented Governments with an important and exciting challenge: to involve the whole community in achieving economic growth based on sustaining our renewable natural resources. Here we outline the United Kingdom's response to that challenge and we set a course for the future.

A long tradition of love and care for the countryside and its wildlife underlies our approach to conservation in these densely populated islands. We have no real wildernesses. Virtually every acre is important to one or several communities. The respect this has created for our natural heritage provides great stability.

Protecting our environment and its resources, while ensuring economic viability for the living communities that care for it, is the great strength of our system of town and country planning. Additional care is taken to conserve uniquely valuable countryside and wildlife. Industrial and commercial development has been feared as an intrusion and has had to carry a substantial burden of control to ensure, for example, that even the seven million people of London have access to acres of parkland which lie among the most valuable commercial sites in the world.

Although statutory controls began over a century ago, industrial pollution was tolerated for far too long by our expanding and prosperous commercial society. The resulting challenges have been great: industrial dereliction left behind as the successes of our industrial revolutions declined; unplanned or badly-planned towns which cannot be abandoned to the problems of their own decline; past pollution in the form of smog and fouled rivers; and at the same time the need to deal with new pressures on our countryside and our rural communities.

Our tradition of co-operation with the whole community has helped us to meet such challenges. A huge voluntary sector involves millions of enthusiasts with conservation. Our long-established system of planning controls is based on local concern for local issues. Industry and commerce are answerable to their own communities.

We have achieved great successes, some spelt out in this report. We face great challenges, also set out below. We, the decision-makers, can draw great strength from the breadth of public participation. We are determined to ensure that productive wealth-creation takes place in an environment that is still healthy and beautiful.

The problems the UK has lived with for 200 years are now being faced on a global scale. We have been at the forefront of establishing international bodies in which global problems, from international trade in endangered species to the dangers to the ozone layer, can be debated. Our commitment to this co-operation between nations sharing one earth, one natural resource base, is real and firm.

The UK Government does not underestimate the problems being faced today and the threat to the environment which we will pass on to future generations. But we do greet these challenges, at home and in the world community, with enthusiasm and determination.

INTRODUCTION

"The aim of the World Conservation Strategy is to help advance the achievement of sustainable development through the conservation of living resources."

("Guide to the World Conservation Strategy")

1. The publication of the World Conservation Strategy by the United Nations Environment Programme, the International Union for Conservation of Nature and Natural Resources and the World Wildlife Fund in 1980 marked a new era in environmental policy. Not only had Conservation "arrived" as a major global issue but a timely warning had been sounded that the natural environment is a finite resource. For the sake of future generations stewardship of the natural environment needed to be based on a policy of "Development without destruction". The United Kingdom Government welcomed the publication of the World Conservation Strategy. Its central theme strikes a chord with the kind of environmental policies the UK has been attempting to pursue.

2. The UK considers that it has a record of environmental achievement in which it can justifiably take pride. These achievements are spelled out more fully in the following chapters. Nevertheless, as any visitor to, say, the older industrial areas of the UK will notice, some of the scars of industrial Britain will take many more years to heal. This report makes no attempt to gloss over these problems or indeed the environmental difficulties which can be caused by modern industry, intensive farming and other practices. Our policies are constantly evolving to meet challenges as they arise. Increasingly the emphasis is on the search for a consensus in the decision-making process.

3. Every section of the community has its own special part to play in exercising responsible stewardship of the natural environment. This is the underlying message of this report.

4. The voluntary conservation movement performs an immensely valuable function in the UK, not least in focussing attention on issues of major concern. So it was that in the summer of 1983 the Council for Environmental Conservation, the Royal Society of Arts and the World Wildlife Fund UK, together with the three statutory countryside agencies, the Nature Conservancy Council, the Countryside Commission and the Countryside Commission for Scotland, jointly published the "Conservation and Development Programme for the UK". This was a comprehensive multi-volume report which examined how the theme of the World Conservation Strategy might be developed within seven broad areas of national policy, thereby responding to the call for a national conservation strategy. The Government is grateful for the major effort which went into producing the document. Although it went further than the central "living resources" theme of the World Conservation Strategy itself, it nevertheless contained many useful proposals. Among these was an idea which led to the establishment of the UK Centre for Economic and Environmental Development (CEED).

5. Nature knows no national boundaries. Desertification, deforestation, air and marine pollution all have international implications. Environmental problems and remedies therefore increasingly need to be tackled by concerted international action. Consequently, although this Report focusses primarily on the UK's domestic situation, it sets out (at Chapter 11) the wider dimension of our policies.

6. This report is intended to serve as an assessment of how successful (or otherwise) the UK has been to date in meeting the challenges identified in the World

Conservation Strategy. It is aimed at both the national and international communities. It starts out in Chapter 2 by taking a brief look at the geography and history of the UK. The British approach to environmental policy-making is examined in Chapter 3, followed in turn by chapters looking at the environmental implications of research; the way in which we have developed our natural resources; town and country planning; the natural and built heritage; pollution; the voluntary movement; the international dimension; and, finally, prospects for the future.

THE BRITISH ENVIRONMENT

1. The 56½ million inhabitants of the United Kingdom, confined in an area of under 250,000 sq kilometres, make it one of the world's most densely-populated countries. It is also one of the most diverse. Few countries pack such varied geology, climate and terrain into so small a compass. The varied soils of the UK, formed from the interaction of environmental factors, sustain the more transient heritage of land use and wildlife.

2. About half the total area, in the north and west, is upland. It is made up of hard old rocks, fringed by a coast of spectacular cliffs and off-shore islands. The weather is often wet and windy, the terrain is difficult for communications overland and the region is unsuited to intensive agriculture. Much of the land is sparsely populated. This is stock-raising country: a land of rugged hills scarred by recent glaciation, stripped of its ancient forests to make pasture and its enclosures bounded by walls of loose stone. [Picture] There is much history and pre-history here. The Roman Empire walled its northern frontier across the border hills and more recent history has unfolded in historic centres such as Iona, Edinburgh, Lancaster, York and Caernarfon.

3. Moving south and east, where much of the population is concentrated, the landscape is greener, with lower and more rounded hills and fertile plains. The climate is generally more favourable, the soils are richer and agriculture is more productive. Access to mainland Europe is relatively easy across the narrow seas. Here, too, are historic cities, towns and villages and many great country houses set amid elegantly-planned parkland. This is the country of leafy lanes, dreaming spires, white cliffs

and grassy downland: a far cry from the rugged grandeur of the Giant's Causeway and Fingal's Cave.

4. This is Blake's 'Green and Pleasant Land'. This is Shakespeare's 'Other Eden - demi-paradise'. [Picture]

5. History has brought major pressures on the British environment. Until a few centuries ago, the countries now forming the United Kingdom - like others in Western Europe - lived by agriculture, backed by the mineral riches of the country. Much of England grew rich on wool. But the wealth of coal, in conjunction with iron ore and water power, was a foundation for the industrial revolution of the 18th and 19th centuries. New industrial centres sprang up in the West Midlands and the hills of northern England, Central Scotland, South Wales and around Belfast in Northern Ireland. [Picture] The United Kingdom rapidly expanded as a trading nation with worldwide influence. National wealth grew rapidly, through the development of an industrial economy based on large-scale exploitation of natural resources.

6. This urban and industrial expansion, taking place at a time when agriculture was itself being transformed by the enclosure of former shared lands, and people were being displaced from the countryside, often produced gross and obviously unhealthy pollution of air and water and much inadequate housing. Although the UK was amongst the first to recognise the problems, and to begin the long process of reversing the damage, some of the legacy of this era of development remains as a cost to present generations. Old industrial sites have left the UK with much contaminated and derelict land incapable of further beneficial use without treatment. The process of cleaning this up has absorbed much effort.

CHAPTER 3

THE AIMS OF BRITISH ENVIRONMENTAL POLICY

Policy development.

1. Environmental policies have evolved over many years, frequently as a response to special problems. In the 19th century the Public Health Acts were introduced to meet the challenges of dirty, cramped, overcrowded towns and cities which had sprung up during the Industrial Revolution. More recently, the town and country planning system evolved to meet the needs of a massive post-war reconstruction programme after the 1939-45 war. Even more recently, the 1972 United Nations Conference on the Human Environment at Stockholm signalled the start of a new era in environmental awareness and concern in the UK. The British people have increasingly come to express concern about the environmental implications of processes used in modern industry, construction, farming and other activities. They want a clean and safe environment they can hand on to their children, and many are prepared for more of the nation's economic wealth to be devoted to this.

2. As will become evident to the reader, there is no single "British Environmental Policy". However, it should become apparent that running through the collection of policies set out in the subsequent chapters of this report, there is a common, unifying theme. This can perhaps best be summed up as 'Development without destruction' - the guiding principle of the World Conservation Strategy itself. Environmental safeguards cost money, so wealth must be created if environmental programmes are to be sustained; there is no easy alternative to this. This means that policies must be defined which encourage the development essential to wealth creation

- but in a way that avoids environmental damage, and if possible enhances the quality of life and enables us to hand on to future generations the natural resources they, in their turn, may need to generate wealth.

Policy requirements.

3. The main elements on which the British approach to environmental policy is based are:-

(i) A firm science base

To mean anything environmental policies need to be addressed to problems which have been clearly identified and - where possible - quantified. The UK Government therefore places great emphasis on the collection and assessment of scientific data as a foundation for the development of its environmental policies. Organisations such as the Nature Conservancy Council, the Government's advisers on nature conservation, rely heavily on scientific analysis, provided by the Natural Environment Research Council and UK Universities, and have carried an international reputation for the scientific basis of its policies and management.

(ii) Planned development

Development cannot be allowed just where and when it wills: the legacy of the 19th Century bears ample testimony to the error of this path. It needs to be guided by an effective and responsive planning control system which does not hamper proposed development unnecessarily, but ensures that all relevant

environmental and socio-economic factors are considered carefully before decisions are reached and also that the public can participate fully.

(iii) Special policies for special features

The natural and man-made heritage requires special treatment. For example, many farming activities do not qualify as development but they can have a significant impact on living natural resources and their conservation. Mechanisms are therefore required which, while recognising the special circumstances of those who live and work on the land, are able to sustain essential processes and life-support systems. But policies must go further than this if the richness of * landscape and wildlife is to be preserved. [Picture: chalk downland: Parsonage Down] In accordance with the World Conservation Strategy philosophy, such conservation of fauna and flora has been placed in the main-stream of British environmental policy aims.

(iv) Sustaining the rural economy

The population drift to the towns has caused special problems for rural communities. In the past, most of the people of such communities gained their living directly or indirectly from the land. With the rapid growth of farm mechanisation this changed rapidly. The process started early in the UK and is even now not quite over. Employment in agriculture has declined and modern mobility has allowed more rural services to be provided from the larger towns. New sources of income, including manufacturing and craft-based industries, support services, tourism and recreation therefore need to be encouraged.

(v) Pollution prevention

Prevention may often be better than cure. Policies are being developed to put this into practice, alongside programmes to clear up the unwanted legacy of past mistakes. But complete prevention of environmental damage will not always be technically feasible or economically practicable. UK environmental policies are influenced by the concept of 'best practicable environmental option'. It implies that we should compare the potential impact of alternative ways of disposing of pollution - to air, land, rivers or sea - and choose the procedure that secures the best overall result when costs and benefits are taken into account and with the greatest confidence that the solution will be durable in future. The United Kingdom also stands firmly behind the 'polluter pays principle' which states that the costs of pollution control should fall on the polluters - or, by extension, on the purchasers of their products.

(vi) Enjoying the environment

Many British people live in towns. Not surprisingly, they like to escape to the countryside or the coast to get away from the crowds, breathe fresher air and to relax. They also like to visit places of interest, for example a stately home, museum or wildlife park and take part in activities. Many overseas visitors to the UK enjoy doing the same thing. A visit to the UK is a high priority with many overseas holidaymakers. The UK Government welcomes them all. It recognises that positive policies are needed to sustain recreation and tourism by cherishing the natural and built heritage, to ensure that it provides an attractive and interesting environment for visitors all year round.

(vii) Workable policies

British pragmatism demands policies that are efficient. The British people seek to achieve practical goals with the minimum of complicated regulations. They prefer to rely on voluntary cooperation where they can. Accordingly they seek mechanisms that are as uncomplicated as possible, but which are practicable enough to command the respect and participation of all the interests involved, and are enforceable. This is not always an easy mix to achieve, but environmental policies - perhaps above most others - need the full support of all sections of the community if they are to be effective.

4. British industrial and urban expansion was, obviously, innocent of principles that the World Conservation Strategy was to articulate in a later age. For ours was often development with destruction - much of the destruction unnecessary but accepted as a natural price of prosperity. Today's pressures still stem from the need for development but they are of a different kind. The UK has fashioned policies to safeguard farmland, historic heritage and landscape, most of which remains extraordinarily beautiful, and the constraints that these policies impose on the thrust for new housing, new factories and roads especially in the South East, are a matter of continuing debate. Like other Western European nations, and within the strengthening framework of the European Community, the UK now seeks to prevent damage that wastes environmental resources. Industrial and urban reconstruction - and revitalisation of rural communities - remain central objectives of Government, which is determined to achieve them with the minimum of bureaucracy and interference. Careful choices have to be made because there are not sufficient resources to do everything at once.

5. The following chapters describe how the UK is going about the business of repair (when that is necessary) and development within the constraints and opportunities of geography and history and in a way that blends the needs of conservation with the demands of economic and social development. Taken together, the actions described here and the policies spelled out in more detail in the publications of the national conservation bodies constitute the UK's national conservation strategy.

A FOUNDATION OF KNOWLEDGE

1. The lesson of history is that environmental disasters happen not by deliberate choice, but because people do not understand the risk. Preventing new damage to the environment, or even cleaning up past dereliction, demands knowledge of the environmental systems involved. Without it, we cannot choose courses of action that work best and use equipment, money and human effort most efficiently. That is why the World Conservation Strategy calls for a better knowledge and understanding of natural resources and the processes affecting them. Research, information and environmental education are essential means to this end.

Research

2. Environmental systems are complicated and we have a lot to learn about their behaviour. For example, despite immense advances in climatological science in recent years, the weather can still behave in unforeseen - and expensive - fashions. Knowledge of rocks, soils, the movements of the air, the flow of water on the surface and underground, the circulation of the seas and the movements and changes of chemicals in all these media may be required before the best action can be decided. Living systems are even more complex, and the ecologist needs to understand not only how species react to features of the physical and chemical environment but about the interactions between the thousands of kinds of plant and animal that make up quite ordinary vegetation and habitats. Because describing everything about everything is impossible, 'models' - often in the form of a series of mathematical equations - are needed to identify and quantify more general relationships. They have to allow explicitly for uncertainty: to indicate a range of probabilities.

3. The United Kingdom is fortunate in the strength of its science base. Natural history has had its devotees here for centuries, and a number of them - like Gilbert White of Selborne or Philip Gosse - achieved worldwide fame. Many pioneers of geology, climatology, hydrology, pedology, biology and ecology were nurtured in these islands, and the national contribution to the continuing development of environmental science remains vigorous. Universities, supported by Research Councils and Government Research Institutes are all contributing to the onward progress of these sciences, at a cost of some £100m annually. Specialist research in agriculture, forestry and fisheries accounts for over £120m more. Natural history groups remain rigorous, and from their first ranks of young enthusiasts many distinguished professionals spring - as Charles Darwin did, 150 years ago. The taxonomic base - without which it is literally impossible to describe the plants and animals making up ecological systems - is provided by world-famous national institutions like the British Museum (Natural History) and the Royal Botanic Gardens, Kew, backed by a network of regional museums and specialised societies. [Picture]

4. The range of research supported by the Natural Environment Research Council in its Institutes, the Grant-aided Associations and Universities encompasses the full spectrum of environmental sciences. Within the atmosphere the physical and chemical differences caused by distance from the sea and changes in terrain result in shifts in the amounts of plant nutrients - and pollutants - deposited on vegetation. The diversity of vegetation reflects the dynamic interactions of plants with each other and with their environments.

5. Our vegetation is changing naturally and in response to man's activities. Analysis of these changes is the focus of research in the NERC Institute of Terrestrial Ecology and the Unit of Comparative Plant Ecology at Sheffield and provides the basis for

prescriptions and policy. Management of our fauna depends on knowing how the population respond to changes in climate or land use, with an intimate knowledge of food and habitat requirements whether there are rare species of conservation interest, common species which are pests, or game species. Sustaining the quantity and quality of our water resources is intimately linked with a knowledge of our climate and land use. Research undertaken by the Institute of Hydrology and British Geological Survey provides this knowledge for both surface and groundwaters, identifying for example those groundwater aquifers which are susceptible to contamination of agricultural fertilisers or atmospheric acidification and on which land management can be modified to ameliorate the processes. As on land, research on the ecology of freshwater plants, animals and microorganisms is concentrated in one organisation, the Freshwater Biological Association with 50 years experience in the biology of our lakes and rivers.

6. Specialist research in agriculture, forestry and fisheries accounts for about £100m more in the Agriculture and Food Research Council, the Natural Environment Research Council, the Universities and other bodies.

Survey

7. This research provides insight into how environmental systems work. It is linked to surveys which describe the variation in environmental features over the country and gives specific details about particular areas. The results of these surveys, taken together, form a broad national environmental data base.

8. In Great Britain information about the shape of the islands, the topography, and the pattern of built up areas and communications, is held by the Ordnance Survey,

which is incorporating it in digitised form in a computer databank. The British Geological Survey of the Natural Environment Research Council has been characterising the surface rocks and the underlying structure of the country for over a century. [Picture] It has provided essential information on the whereabouts of mineral resources ranging from coal and metals to sand and gravel - and on the location of old mines and other features that could be a hazard to future development on the land above. Soil surveys of England, Wales and Scotland have provided national maps. The quality of farmland has been mapped and recorded by the Agriculture Departments which use their information as a basis for advice. The Natural Environment Research Council has examined regional variations in environmental features and related ecology, including extensive surveys of species distributions through the Biological Records Centre which combines the information from an 'army' of voluntary workers. The Forestry Commission have undertaken regular surveys of forests and woodlands. Landscape quality has been reviewed by the Countryside Commissions and the most outstanding areas identified. The Nature Conservancy Council undertakes exhaustive surveys of sites important for biological, geological and physiographical conservation in Great Britain. The ten Water Authorities in England and Wales, with the River Purification Boards in Scotland, the Natural Environment Research Council and the Water Research Centre have amassed a great bulk of data on river flow and water quality. Local Authorities are the repository of a great deal of detailed information about their areas. Similar operations have been undertaken by Government Departments in Northern Ireland (with the exception of a detailed soil survey). Voluntary natural history societies, local Nature Trusts, and specialist voluntary organisations like the Royal Society for the Protection of Birds, the British Trust for Ornithology and the Botanical Society of the British Isles have made an immense contribution to our knowledge of the distribution and abundance of species and the country's ecological systems.

9. All this amounts to a massive banks of national data, and there are now moves afoot to link the centres of information and to apply new techniques including remote-sensing to surveys that will keep the archive up-to-date in the future. The Economic and Social Research Council has established a Rural Data bank, based on the University of Essex, with the support of Government. A National Remote-Sensing Centre has been operating for some years and is now being linked to a National Space Centre. As more and more of the information comes to be held in modern computerised systems easy to link and tap, a flexible source of information fundamental to the taking of environmental decisions will be built up. [Picture]

Monitoring

10. The environment is never static. It changes as a result both of natural processes and human activities. Many environmental policies are deliberately designed to bring about change. If their success is to be judged, and the need for further action weighed, there must be monitoring.

11. The United Kingdom is one of the most intensively-monitored of industrial countries. Central Government, Local Authorities, Regional Water Authorities and Scottish River Purification Authorities all engage in the process, and a great deal of information is also collected by private industry and academic researchers. An annual Digest of Environmental Protection and Water Statistics has been produced by the Department of the Environment since 1977, and this has sections on air pollution, freshwater pollution, marine pollution, radioactivity in the environment, solid waste disposal, water supply and use, landscape and nature conservation, and on blood lead concentrations as an example of a human health problem of widespread concern. The results of this monitoring have been drawn on extensively to illustrate various

chapters of this Report, particularly in the section dealing with the progress of action against pollution. [Illustration - graph of smoke or SO₂ emissions]

12. The monitoring of the environment in the United Kingdom has been developed progressively over the years, to meet new and emerging needs. For example the systematic measurement of air pollution was begun voluntarily in 1914 and taken over by the Meteorological Office in 1957. It was originally designed to record smoke and sulphur dioxide concentrations in urban areas. Public recognition of the very real hazard to health posed by these pollutants, prompted by the lethal London smog of December 1952, encouraged a major expansion of the network which at its peak included some 1300 sites. It now covers rural as well as urban areas and embraces oxides of nitrogen and ozone. There is increasing evidence linking both pollutants, either singly or in combination, with sulphur dioxide, to processes that can damage vegetation. The UK also participates in international air pollution monitoring schemes, particularly under the Geneva Convention on Long Range Trans-Boundary Air Pollution, which is concerned with the movement of sulphur dioxide and other gases involved in 'acid deposition' over the whole of western Europe.

13. The Water Authorities operate a harmonised monitoring scheme begun in 1974, which records the concentrations of major pollutants at some 250 sites in Great Britain, at the tidal limit of rivers or where major tributaries join the main streams. Industrial emissions, radioactive discharges and the quantities of solid wastes disposed of in various areas are also monitored. Another new research monitoring programme is examining changes in the countryside. Satellite and air photographs are being used to record the extent of seventeen different types of rural land including broad-leaved woodland, upland heath and cultivated land, and five linear features including hedges and walls, in England and Wales in 1951, 1971 and 1981. This project

by the Department of the Environment and the Countryside Commission in England and Wales is complemented by detailed studies by the Nature Conservancy Council and the Countryside Commission for Scotland of changes since the late 1940s in features important to conservation. A related study by the Institute of Terrestrial Ecology of more recent ecological changes is based on a broad land classification which is also being used to assess potential changes in land use. Their work is backed and extended by the efforts of the voluntary conservation movement and of natural history societies. Changes from rural to urban land use - one of the most critical concerns in a densely-populated country like Britain - are now being recorded through monthly returns from surveyors engaged in bringing Ordnance Survey maps up to date.

Conclusion

14. All this adds up to a massive volume of information. More is needed. We still lack sufficient knowledge of natural and man-made changes in our countryside. And no general body of data is likely to be enough to answer all the questions posed by a new development proposal or an adjustment in policy: special problems require special investigations of the situations directly involved. But all the research, survey and monitoring work carried out in Britain does provide a valuable basis for managing our environment and judging how far our policies are succeeding, and it is being extended by new projects to give us an even more useful foundation for the future.

CHAPTER 5

SUSTAINABLE MANAGEMENT OF THE COUNTRYSIDE

1. The World Conservation Strategy rightly drew attention to the crucial function of the land in the maintenance of ecological processes and life-support systems. The land is our most important natural resource. It produces much of our food; sustains a wealth of animal and plant life; contains minerals and gases for manufacturing, construction and energy production; provides the space on which to build; acts as a collecting ground for water supplies and serves as a source of enjoyment and relaxation. The realisation of the objectives spelled out in the World Conservation Strategy clearly depends on how we utilise this key resource.

2. Many of the basic materials and conditions necessary to sustain development and growth exist in the United Kingdom. A moist and equable climate, coupled with a fertile soil, encourage the production of a wide range of temperate food-stuffs; clean water is abundant almost everywhere; the presence of ores and timber has supported the manufacture of tools, utensils and other goods; the existence of sand, gravel and other minerals provides building materials for houses, factories, offices and shops; and coal, gas, oil and the rivers to various degrees supply the power needed for heat and light.

3. The need for careful planning and zoning and for mechanisms to control a blend of conservation and development in this populous group of islands has already been noted. The role of the planning system which has evolved to meet the challenge is spelled out in Chapter 7.

a) The Rural Scene

4. Despite the high overall density of population in the United Kingdom, much of the land is still rural: the towns and cities account for well under 10% of the total area. But for more than a hundred years people - especially those of working age - have drifted to the towns in the wake of declining rural employment. This general trend of population movement has now been halted and replaced by a more complex pattern of rural population change. Some areas are gaining in population by the migration of retired people and commuters, while some remote settlements continue to decline and population imbalances remain. The problems of depopulation are still acute in the far north and west, especially in the islands. Many such communities suffer from inadequate employment opportunities and poor and declining services and facilities. Yet rural economies have a vital part to play in maintaining the pattern of British society. New activities appropriate to rural areas need to be encouraged and the landscape itself needs to be managed and maintained if it is to retain its present appeal. A flourishing rural economy is therefore a key factor in an effective conservation policy.

Farming

5. Despite the massive contraction in agricultural employment in the past hundred years agriculture remains the foremost rural industry in land-use and cash-flow terms. Prime-quality farmland, which produces much of our food, is safeguarded through the planning system. Nevertheless, in recent years increasing concern has been expressed about the impact of modern farming techniques on the environment. In response, new policies (spelled out more fully in Chapter 8) are striking a more even balance between agriculture and conservation. The Government believes that a viable,

efficient and competitive agricultural industry is essential for the future of our countryside. Farmers should be natural conservationists: indeed the cherished beauty of the British landscape owes much to them.

6. Most agricultural policies in the UK are either determined or strongly influenced by the European Community's Common Agricultural Policy (CAP). This policy developed with the aim of supporting agricultural incomes, but has led to the creation of surpluses, particularly of cereals and milk. In the past it has paid little heed to the effects such policies have on the environment. In a recent review of the CAP, the European Commission has advocated a restrictive price policy and has suggested that greater attention should be paid to environmental matters. The UK Government took the initiative which led, in 1985, to a new provision in the EC farm structures regulation. This permits member states to designate 'environmentally sensitive areas', within which payments may be made to farmers who undertake to continue farming in a way which is compatible with traditional landscape or ecology. The UK hopes to designate 5 or 6 areas under this provision towards the end of 1986. An experimental scheme on these lines is already operating successfully to support traditional grazing patterns on marshes in the Norfolk Broads area of Eastern England [Picture: Acle Marsh]. It operates on a voluntary basis through annual payments to livestock farmers and is jointly financed and run by the Ministry of Agriculture, Fisheries and Food and the Countryside Commission.

7. The farm capital grants schemes have always included grants for investments which benefit conservation, and their value has been maintained or increased over recent years. At the same time grants for other operations recognised to be harmful to the environment have been reduced or withdrawn. The current Agriculture Improvement Scheme makes a particular feature of conservation grants and offers enhanced rates to

create or reinstate hedges, traditional walls, shelter belts, trees, stiles and footbridges. Unlike most farm improvement grants, these are available in principle to all established farm business. Agricultural Departments now also make grants to farmers in certain parts of the UK under this scheme for investment in farm tourism and farm-based craft industries. The Ministry of Agriculture, Fisheries and Food maintains an Agricultural Development and Advisory Service (ADAS) which offers advice to farmers on all aspects of farm management, including conservation. In Scotland this role is undertaken by the Agriculture colleges and in Northern Ireland by the advisory staff of the Department of Agriculture.

8. The overall trend is encouraging. A number of surveys have indicated that the majority of farmers will react favourably to offers of help and advice, and the policies of Government, their agencies and the local authorities are increasingly being directed in this way. Among the more striking examples are demonstrations to show how conservation can be combined with profitable farming; amenity tree planting on farms with the aid of grants; experiments on better management of small woodlands, techniques for re-creation of herb-rich measures and the use of redundant barns for overnight accommodation. The development, as a result of partnership between non-governmental organisations and statutory bodies, of a nationwide voluntary system of Farming Wildlife Advisory Groups bringing together farmers, conservationists and others to promote better nature conservation on farmland has also been a major advance.

Forestry

9. A sustained planting programme has more than doubled Britain's forest resource since the creation of the Forestry Commission as a Government Agency in 1919. The

Second World War depleted Britain's forests so much that by 1947 there was only 0.7 million ha of productive woodland. Yet by 1984 - 15 years ahead of a target for the end of the century set in 1943 - there were 2 million ha of productive forest. Planting continues at just over 20,000 ha per annum, through both the Forestry Commission and private effort. New processing industries are providing useful employment in the countryside, especially in the thinly-populated areas of Scotland and Wales. However, the proportion of land under woodland and forests (9%) remains low in comparison with other European countries, and UK timber production still accounts for less than 10% of the 36 million tonnes of wood products consumed annually, with an import bill running at £3.6 billion.

10. Forestry activities in Great Britain have mainly been confined to uplands and the very visible impact of extensive conifer plantation on open hills previously grazed by sheep and often open to walkers has attracted widespread criticism. Plant and animal species of the open moorland like golden plover (*Pluvialis apricaria*) and dunlin (*Calidris alpina*) have suffered even though forest expansion has benefitted larger mammals, some predatory birds and those birds such as crossbill (*Loxia curvirostra*) and siskin (*Carduelis spinus*) which were previously confined to the remnants of native pine woods. [Pretty picture(s) of mammals/birds in forest]. Such adverse environmental impact can be reduced by blending afforestation with farming and including mixes of native species favourable to wildlife, contoured upper tree limits and vistas to preserve landscape interest and positive measures for recreation. Local consultation has often helped to make schemes more acceptable. Recent concern about environmental acidification has had an impact on forestry because the drainage of certain upland soils for afforestation and the development of a conifer canopy can effect the chemistry of soils and stream systems. Considerable research on the relationship between afforestation and acidification is going on. It is widely

accepted that, with a relatively small indigenous forest resource and land and climate well suited to tree growth, further forest expansion should take place: the challenge is to achieve this without adverse effects on other interests. [Picture] In 1984 the Forestry Commission appointed a conservation consultant, having already engaged a landscape architect as long ago as 1963. Commission Guidelines on planting practices that minimise the risk of acidification have been developed. The growth of concern among private forestry interests has recently led Timber Growers (UK), which represents the private sector, to introduce a voluntary code of practice for forestry operations. These are still important issues to resolve, particularly in areas which are attractive to forestry but of high scientific interest in their unplanted state, and this will require further frank discussion in the years ahead.

11. The aesthetic and ecological value of Britain's lowland broadleaved woodlands has long been acknowledged. The loss of over 10 million elms to Dutch Elm Disease and the realisation of the heritage value of ancient semi-natural woodland has led to a reappraisal of national policy. A major Government initiative in 1985 provided greater protection and increased grant aid to all broadleaved woodland, and gave greater incentives towards effective management.

Enjoying the Countryside

12. The growth in leisure and car ownership has increased the popularity of the countryside for visitors. The bulk of countryside visiting in Britain is for casual recreation, such as walking, picnics and this is supplemented by visits from holiday makers, particularly in spring and summer. Tourism is a successful and growing industry, directly and indirectly employing upwards of 1 million people. It earned over £4 billion from overseas visitors in 1984. Between 1974 and 1984, the annual

number of domestic tourist visits (excluding day trips) grew from 114 million in 1974 to over 140 million, while the number of overseas visitors to the UK grew in the same period to a record 13.7 million. The growing popularity of the countryside for holidays and leisure means that the pressure on the countryside has never been greater.

13. However, this pressure may well turn out to be a blessing in disguise if it is properly handled. Its very existence signifies the high value attached to the British scene by visitors; this in turn enhances the value placed on the environment by those responsible for setting priorities and making decisions which could have an impact. There is little doubt that the growing importance of tourism and leisure as a source of revenue for conservation activity is beginning to exert a positive influence.

14. Countryside recreation has been the driving force behind conservation for over a hundred years. From the outset the voluntary organisations were the pioneers, among them the National Trust, founded in 1895. Since the 1939-45 war successive Governments have also pursued policies aimed at opening up the countryside for the enjoyment of the whole community. As long ago as 1949 legislation provided for the first of the National Parks in England and Wales and made provision for securing access to the countryside. The success of these policies can be gauged from a 1984 survey which indicated that on a typical summer Sunday as many as 18 million people visit the countryside and the coast.

15. Recreation is promoted throughout the UK by an extensive collection of Government agencies, local authorities, Government departments, voluntary organisations, private businesses, and individuals. In Great Britain the Countryside Commissions have a statutory duty to promote better access to and enjoyment of the countryside. The

National Parks provide a wide range of visitor facilities, including information centres and picnic areas. [Picture: Information centre or Picnic Area] The Forestry Commission has opened up its forests and woodlands with extensive facilities for visitors including nature-trails. Woodlands are extensively used for traditional sports such as game shooting, deer stalking and fishing and organised sports such as orienteering and motor rallying. Over 200 Country Parks and nearly 250 picnic sites have been established by local authorities up and down the country. The Countryside Commissions, with the co-operation of landowners and local authorities, have created over 2,500 miles (1560 km) of long-distance footpaths, opening up some of the finest scenery in the UK to walkers. In addition there are some 120,000 miles of footpath and bridleway throughout the countryside as a whole for which the local authorities are responsible. [Picture of walkers on long-distance path - preferably coastal]. The Sports Councils actively promote outdoor sport and recreation. Voluntary organisations and private individuals have opened up land to provide visitors with nature trails and country walks. Local nature conservation trusts have established between 20 and 30 centres providing information for visitors, and the centres and observation points run by the Royal Society for the Protection of Birds, the Wildfowl Trust and other bodies are immensely popular. The properties of the National Trust and the National Trust for Scotland are world-famous and make a tremendous contribution to public enjoyment and to the tourist industry. The National Tourist Boards have also helped to encourage the provision of tourist amenities and facilities in rural areas, such as self-catering, youth accommodation and visitor information facilities.

Strengthening the Rural Economy

16. The changing pattern of population in rural areas has brought special challenges, especially in job prospects. The need to reduce agricultural production

as a consequence of EEC surpluses (especially of cereals and milk) is bound to lead to further pressures. Increasingly, rural communities are looking to a much wider range of employment opportunities than those provided by agriculture and forestry to sustain the local economy. The remote upland areas illustrate this very well. They tend to be sparsely-populated with difficult climatic conditions restricting winter activities and dictating a seasonal employment pattern. Increasingly they are becoming reliant on service industries, especially tourism, which can help to provide productive new uses for redundant farm buildings. Conservation itself, as the foundation of the attractiveness of such areas, can be a job-creator in the countryside. [Picture of "typical" upland area - Wales/Derbyshire/Yorkshire - with a small farm]. A number of Government-sponsored agencies have been created to work closely with the local authorities, the business community and local groups to stimulate economic, social and communal development in rural Britain. Rural areas can be well-suited to the siting of modern high technology factories producing high added-value goods and services, and to the establishment of small firms, which can be accommodated without detriment to the landscape. And improvements in communications are reducing the disadvantages of remoteness.

17. The main constraint on the establishment of small firms in rural areas is frequently the shortage of suitable premises. In England the Development Commission tackles this by providing - or helping to provide - workshops and small factories in the villages and small towns. Great care is taken to ensure that the premises blend in with their surroundings [Picture]. Grant assistance is also available to convert unused existing buildings into workshops for rural crafts and skills, thus turning potential eye-sores and liabilities into positive assets. By the start of 1986, more than 10,000 jobs had been created in over 1,500 small factory and workshop units. At the same time more than 80,000 people had been offered a wide range of technical,

managerial and financial advice and assistance through the Commission's agency, the Council for Small Industries in Rural Areas (COSIRA).

18. The more remote areas of the United Kingdom present their own special problems with isolated communities frequently having to cope with difficult terrain and a harsh environment. In Wales, Mid-Wales Development and the Welsh Development Agency (WDA) and in Scotland the Scottish Development Agency and the Highlands and Islands Development Board have been set the task of improving the economic prospects of these areas. In Wales alone more than 5,500 jobs have been created in over 400 factories. The Highlands and Islands Development Board operates a comprehensive programme of social and community development in by far the largest of the UK's remote areas. It has built and leased some 300 factories and workshops and also offers assistance with industrial, agricultural, forestry and social development projects.

19. Thriving communities also need access to good education, health, shopping and other services. The task of providing this infrastructure falls to a wide range of Government departments and their agencies, local authorities, the business community and local voluntary groups. Government assistance is available for projects such as village halls and multi-purpose village centres to help with the provision of local TV transmitters. The maintenance and improvement of services requires a co-ordinated approach by these bodies. In Wales this approach is fostered through the activities and programmes of Mid Wales Development and the WDA. In England the Development Commission encourages rural bodies including local authorities, rural community councils and others to prepare 10-year Rural Development Programmes setting out locally-agreed strategies for development.

(b) Getting there

20. Roads act as a lifeline; as a result of the major road building programme of the last 25 years people and goods are now able to move more freely around the country and

new roads have brought major improvements to remote communities. On the way, many towns and villages have been bypassed, some of great historic interest, including Canterbury, Cambridge, St Albans, Winchester and York. Easier access has been provided for visitors to historic places and the countryside. Nevertheless, the environmental price paid for the extensive road building programme of the last 25 years has been considerable with over 20,000 hectares of land lost to the motorway building programme alone, much of it countryside. Some badly-designed new access roads, especially in the hills have scarred the landscape and increased the pressures on some sensitive areas, despite the great efforts made elsewhere to blend new roads into the landscape. More than 25 million trees and shrubs have been planted on trunk roads in England and Wales alone and significant extra costs have been incurred to avoid damage to highly-valued areas of countryside, as for example where tunnels were constructed under Epping Forest. The 230 mile A9 trunk road which now provides better links between the Central Belt of Scotland and the Highlands and is essential to oil related development in the northern mainland of Scotland has been widely acclaimed for the success which it has taken its place in the landscape, indeed several stretches of the road have received awards [Picture of award-winning stretch]. Valuable new habitats have been provided for many wild flowers and animals and several sites of special scientific interest (SSSI) have been created where new roads have exposed underlying rocks. [Picture: folded Silurian Strata in Lune Gorge]. Interest and concern in all of these respects has grown over the years and the environmental impact of new road proposals is becoming the subject of increasingly thorough appraisal.

Conclusions

21. Much remains to be done. More jobs, better communications, and supporting infra-structure are unquestionably needed in rural areas. The Government's initiative

in seeking to reform the EC Common Agricultural Policy, so that it has a better economic balance, generates fewer surpluses and provides for the support of traditional farming methods necessary to conservation, will continue. There is scope for farmers, particularly in areas whose attractiveness depends on traditional agricultural practices, to link their farm enterprise to the provision of facilities for tourists. Farm accommodation and farm holidays are already a well-established feature of life in the National Parks. Pony trekking is gaining popularity. Farm shops retailing produce direct to the visitors are widespread. Conservation bodies are also creating visitor centres where their work is displayed and bringing both paid and volunteer employment to the Countryside. The Agriculture Departments, the Forestry Commission, the National Tourist Boards, the statutory countryside and conservation agencies, the Development Commission, the voluntary conservation movement and the farming organisations all need to work together, and with the local authorities, to build on the success already achieved. The Government seeks a prosperous countryside giving a decent living to farmers and others who work there and continuing to attract these whose experience is enriched by visiting rural Britain.

CHAPTER 6

THE MANAGEMENT OF ENERGY, MINERALS AND WATER

Extraction and collection

1. Exploiting mineral, gas and water resources has never been easy, and in the United Kingdom the task has not always been tackled sensitively enough. Indeed much of the dereliction remaining today results from those same activities which created a great deal of the nation's economic wealth.

Minerals

2. In recent years the scale of mineral working has increased, but so has the need for additional environmental safeguards. Among the measures in the Town and Country (Minerals) Act 1981 are specific provision for the restoration of land to agriculture, forestry or amenity use and for the imposition of five year after-care conditions.

3. Most of the non-energy minerals worked in the UK are used to meet the demands of the building and construction industries. There has been increasing concern as to how the longer-term demand for some minerals can be met. National and regional policy guide-lines have been developed for aggregates through a system of working parties, involving the industry and central Government under local authority chairmanship. The guidelines enable planning authorities to develop policies for aggregates in their development plans (see Chapter 7 paragraphs 3-5 inc) and to provide a national framework for Departments to consider development plans and individual cases.

4. Although only a temporary use of land, mineral working can have a major impact on the environment. For example, in England in 1982 about 105,000 ha of land were covered by permits or authorisations for extraction and a further 18,000 ha for surface tipping of wastes. It is unacceptable that such land should become derelict or remain out of beneficial use for longer than absolutely necessary. Mineral planning authorities are therefore expected to use their powers to place time limits on workings and to require restoration of the land. Restoration has led to some significant environmental gains through the provision of new habitats for plants, birds and other wildlife, as well as facilities for fishing, sailing and other leisure pursuits. The Lee Valley Regional Park, north of London, for example, is centred on a series of flooded gravel pits. The industry itself recognises the importance of good standards of reclamation. For example, in 1970 the Sand and Gravel Association introduced an annual awards scheme. [Pictures showing (1) "Before" with workings; (2) "After" workings with wildlife, boats, trees, etc].

Oil and Gas

5. Historically, much of Britain's wealth has been based on industrial processes dependent on a plentiful supply of coal. Although coal continues to be important for the production of energy the discovery of off-shore oil and gas over the past 20 years has added a completely new dimension to the national economy. North Sea oil has been one of the UK's post-war economic success stories. It has provided jobs and wealth and the UK has become a major international producer. It has also been an outstanding environmental success story. Exploration and production are regulated by the Government, under strict environmental conditions, and oil companies must prepare contingency plans to deal with possible spillages in accordance with strictly-determined Government criteria. Control of gas exploration and production is

exercised in much the same way. The use of natural gas has brought environmental bonuses because it entails little or no waste material and is carried throughout the country by high-pressure pipes.

6. Off-shore oil supplies will not last for ever and the oil companies are already turning their attention to on-shore sites. Rigorous steps are taken by the Government and the planning authorities to minimise the environmental effect of such activities. Indeed, in some areas it may not be appropriate to allow development to proceed.

7. Coastal Planning Guidelines were issued by the Government to provide a strategic frame-work for siting major on-shore installations on the coast of Scotland. The industry cooperated in producing environmental impact assessments for their proposals. Subsequent development proposals were dealt with speedily and without major controversy and with minimum damage to the environment. Local consultative groups brought together developers, local authorities and conservation interests to agree plans. At Sullom Voe in Shetland such a process not only led to agreements to minimise impact but laid the foundation for an environmental monitoring scheme.

[Picture: Sullom Voe landscape].

Coal

8. The coal industry has a much longer history. One of the environmental successes of the 1960s and 1970s has been the reclamation of unsightly spoil heaps, many of which have been transformed into rounded, grassy hills to make an attractive contribution to the landscape. Another post-war success has been the restoration of opencast coal sites so that they are barely visible a few years after extraction ceases. [Picture: before and after restoration] As old mines reach the end of their economic lives and closedown, the industry and Government will act to tidy up their sites, where possible putting them to other beneficial use.

9. Coal remains an important source of energy in Britain. New, efficient and economic mines are being opened in several areas, and open-cast mining continues. All new proposals are dealt with under the planning system. Some arouse opposition and lead to public inquiries, as in the Vale of Belvoir in Leicestershire. The outcome of such inquiries is determined by a balanced consideration of economic and environmental needs. Where permission is given, conditions are imposed to deal with both the short and longer-term implications for the environment. The objective is to minimise immediate change to the locality and to avoid problems of later dereliction.

Electricity

10. The provision of secure, adequate and cheap supplies of electricity is vital to all sectors of a modern economy. It is expected that coal-fired and nuclear power stations will continue to provide the bulk of the UK's electricity needs for many years to come. Nuclear stations contributed 20% of the electricity available from the public supply system in 1985 and this proportion could reach about 25% by the end of the decade. Nuclear power has already made a significant contribution to the reduction of sulphur and nitrogen oxide emissions and its continued development will bring further gains. The introduction of cleaner, more efficient, coal-burning technology as it becomes commercially viable will also bring benefits here.

11. Before a new power station may be constructed or an existing one extended, consent is required from the relevant Government Minister. Account is taken of the effects which proposals would have on the natural beauty of the countryside and on wildlife, so that any damage can be minimised. If the local planning authority objects to a proposal, a public inquiry is mandatory. A public inquiry may also be held if the Secretary of State believes that other considerations warrant it.

12. Hydro power makes a modest but significant contribution to electricity supply in Scotland. Other renewable sources of energy are being researched and two wind generators, producing 200 kilowatts and 300 kilowatts respectively are under trial in Orkney, with a third much larger one under construction. Geo-thermal sources are being studied in Cornwall. Such sources are unlikely to make a significant contribution to UK electricity supply this century, though they should provide some heat. Whether renewable sources make a more substantial contribution in the next century will depend on their economics, but the possibilities are being taken seriously.

Energy Efficiency

13. Studies have shown that the UK wastes some 20% of its fuel bill. Substantial improvements in energy usage have already been achieved through a dual approach of sensible pricing and a programme of schemes and services to promote the more economic and efficient use of energy. The Secretary of State for Energy has designated 1986 as Energy Efficiency Year to build on progress already achieved and to promote awareness of the benefits of using energy more efficiently. These benefits will include a continuing contribution to the control of UK pollutant emissions from the combustion of fossil fuels.

Water Supply

14. The British Isles have a notoriously moist oceanic climate. This ensures a plentiful supply of water and a sophisticated industry has been developed to meet the heavy demands made by industry and domestic consumers. The construction of reservoirs and the consequent flooding of large areas of countryside was the cause of controversy in the past. However, on present water consumption forecasts, few if any new reservoirs for water supply purposes are likely to be proposed until well into the

21st Century. In addition, most modern reservoirs have been carefully designed to blend with the landscape and in the lowlands of southern Britain, where natural lakes are rare, they have added visual attraction. Under the Water Act 1973 (as amended by the Wildlife and Countryside Act 1981), Water Authorities in England and Wales have a duty to further the conservation of wildlife and landscape and they have created wildlife habitats and recreational facilities on the new reservoirs. These are consequently popular places for visitors of all kinds. [Picture of Reservoir with boats, ducks, people picnicking].

DEVELOPMENT WITHOUT DESTRUCTION: THE ROLE OF THE TOWN AND COUNTRY PLANNING SYSTEM

1. The United Kingdom has a comprehensive and long-established system of town and country planning. Its purpose is to secure economy, efficiency and amenity in the development and use of land. It serves both the needs of development and the interests of conservation. It is a means of striking the right balance between those objectives and between short and long term, local and wider interests. It can help to secure good environmental quality in both urban and rural areas. The system extends to all types of development, but excludes uses of land for agriculture or forestry. It is the principal means of protecting areas of high landscape value, good quality agricultural land and other natural resources from the impact of new development. Other measures are needed to ensure that those resources are well managed and maintained, but the planning system provides the basic protection.

(a) Broad Strategy

2. The planning system thus lies at the very heart of the UK's management policies for the natural environment. It provides a rational framework of environmental planning and land-use allocation within which an integrated approach to conservation and development, involving extensive public participation, can be pursued. It is based on legislation enacted in response to the need for a major programme of re-building following the 1939-45 war. The two main components of the system are development plans, which provide policy guidelines for integrating conservation and development, and development control, which provides a means of implementing those policies through control of applications. These are re-inforced by special policies for conserving the natural and built heritage (dealt with more fully at Chapter 8 below). Increasingly,

the emphasis is on the re-generation of towns and cities suffering from neglect and on dealing with pressures for development of green-field sites. As explained at paragraphs 17-21 below, the town and country planning system has a major role to play in tackling this increasingly important task.

Development Plans

3. The Town and Country Planning Acts in Great Britain provide for the drawing up of 2 levels of development plans by local authorities (in Northern Ireland land use planning is a function of central Government). First, structure plans set out policies and general proposals for wide areas (one or more Counties). These cover a whole range of subjects - employment, housing, transport, infrastructure, landscape and nature conservation, rural development and so on. They establish policies for the protection of natural resources - farmland, mineral reserves, water gathering grounds, wildlife and diversity of natural habitats. They provide a strategic framework for development by indicating what facilities may need to be provided, on what scale, and the preferred general location for developments likely to have a significant impact. They require approval by central Government, and take account of national policies. Accordingly, designations aimed at safeguarding nationally-important features such as National Parks, Areas of Outstanding Natural Beauty, Sites of Special Scientific Interest and National Scenic Areas are included. They may also include other areas of high landscape value of more than local significance. Some may provide for Green Belts. [Map showing Green Belt around London with accompanying picture of typical Green Belt scenery pin-pointed on map]. They are not concerned with specific sites or properties.

4. Wide consultation is carried out at all stages with industry, commerce, housing developers, farming, bodies with special interests in conservation and the public.

The central aim of structure plans is not to curb essential development but to provide the necessary strategic framework so it can be accommodated without undue damage to the natural environment and to enable people to live and work in a satisfactory environment and in thriving, healthy communities. Thus, in some areas, restraint on new development will be the priority to avoid prejudice to areas of high natural value, with new development only at selected points where it can more readily be absorbed.

5. Local Plans are drawn up by local authorities to indicate the pattern of development envisaged for defined smaller areas. They develop the policies and general proposals of the structure plans and elaborate in detail how these are related to particular areas of land. They are site-specific, must conform generally to structure plans, and are normally prepared and, like structure plans, adopted only after consultation and public participation. Legislation provides for central Government to intervene if issues of national or regional importance are involved.

(b) Control of Development

6. The Town and Country Planning Acts define development requiring planning permission. They provide for applications to be made to and decided by local planning authorities, but also give developers a right of appeal to Government Ministers. This right has always been part of the planning system because planning controls represent a restriction on property rights. All building, engineering, mining or other operations - and material changes in the use of land and buildings - need planning permission. But the use of land for agriculture and forestry, together with a range of minor forms of development, have been specifically excluded from this requirement to avoid overburdening the planning system with applications for activities which

generally have a minimal impact on the environment. When dealing with specific applications, local authorities must take account of relevant development plans (structure and local) and all material considerations.

7. Most applications for planning consent raise issues of only local importance and concern and it is therefore appropriate that they should be decided by the elected local authority. About 460,000 applications are made every year in England, Scotland and Wales with about 18,000 appeals per year to central Government, of which about 35% succeed. Most appeals are decided by independent planning inspectors (in Scotland, reporters) appointed by Government Ministers and acting in their names.

8. Government Departments proposing development also follow procedures which ensure that all relevant factors are considered. They consult the local planning authority and as necessary, other bodies likely to be concerned, including the Countryside Commissions and the Nature Conservancy Council. Public discussion is arranged wherever appropriate. Similar procedures apply to public bodies responsible for the supply of services such as major roads and power stations, who look to central rather than local government for permission to proceed. Inevitably in a densely-populated country such as the United Kingdom, proposals of this kind can bring objections and this generally leads to the holding of public local inquiries by independent persons appointed by Government Ministers to hear evidence and make recommendations.

9. The success of the town and country planning system in curbing the amount of land taken for development is illustrated dramatically in the diagram at Figure * which compares the situation before and after the 1939-45 War.

(c) Environmental impact assessment within the planning system.

10. In June 1985 the European Community adopted a Directive on the assessment of the effects of certain public and private projects on the environment. Member States are

required to implement the Directive before 3 July 1988. It provides for assessments to be made of proposals for certain major types of project and for them to be taken into account in the decision-making process before such projects are permitted to proceed. The projects specified include oil refineries, power stations (including nuclear power stations), radioactive waste disposal, integrated iron and steel works, asbestos works, integrated chemical installations, major roads, railways and airports, ports and inland waterways and waste disposal installations. The obligation to prepare an environmental assessment is placed on the developer, who must collect certain information about the direct and indirect effects of the project on the environment and make proposals for the mitigation of adverse effects. Provision is made for consultation with interested bodies and for information to be made available to the public.

11. The implementation of the Directive in the United Kingdom will be based largely on the existing comprehensive system of development control. As already explained, planning authorities already take environmental considerations into account when considering planning applications; they have extensive powers to call for information about the environmental effects of a project and are required to consult other bodies with environmental responsibilities in appropriate cases. Formal environmental assessments are already made in many cases under the existing provisions, though the practice is ad hoc.

12. The implications of the Directive for the United Kingdom were carefully considered by a working party drawn from industry, local government, environmental interests and government departments. A consultation document is about to be published with proposals for the implementation of the Directive within the framework of the UK planning system.

13. In order to meet Scottish conditions a series of National Planning Guidelines have been prepared and issued by the Scottish Development Department over the last 10 years. These Guidelines have provided not only a national basis for Regional and District planning policy but also specific advice to local authorities, Government agencies and developers on Government policy in relation to land use issues affecting the countryside. The Guidelines are revised and augmented periodically and offer advice on such matters as coastal planning, siting of major quarries and land use issues related to agriculture, forestry, nature conservation and National Scenic Areas.

(d) Special policies within the Planning System.

14. The general approach of the British Town and Country Planning system in Britain has been extended by a number of special initiatives, described in the following paragraphs.

15. The establishment of Green Belts around large towns was a response to the intensive pressures for development on areas of open land on the fringe of metropolitan areas. They are intended to check the unrestricted sprawl of built up areas, to safeguard the surrounding countryside from further encroachment and to preserve a town's character. Their essential characteristics are their permanence and the strong presumption against development within them. Green Belts have been established around most large towns and extend to around 2 million hectares.

16. These policies have been complemented by a New Towns Programme with development carried out by Development Corporations appointed and financed by the Government. New towns have been designated in a wide range of locations: some using mainly

undeveloped land such as Milton Keynes and East Kilbride, and others based on expansion of already well-established towns and cities such as Northampton and Peterborough. In certain cases the new town has welded together a scatter of existing communities as at Telford. Conservation is a vital consideration, whether in helping to preserve or enhance the best features of the existing townscape in the more historic parts of the town (as at Irvine in Scotland or Ironbridge and Coalbrookdale in Telford) [Picture] or in helping to create new natural landscapes, managed and conserved to achieve a wide range of public uses while maintaining a wildlife and landscape resource, as at Castle Eden Dene in Peterlee and the Nene Park in Peterborough. The new towns programme in England and Wales is now drawing to a close and the physical assets created by corporations are being disposed of to the private sector and to local authorities.

17. Over the last 15 or 20 years increasing concern has been expressed about inner city decay, derelict land and the need to limit urban development in the countryside. Strenuous efforts are being made to regenerate areas, particularly through the Urban Programme in England and Wales and in Scotland through the Scottish Development Agency and a socially-orientated urban programme. In England alone over £330m per annum is being channelled through local authorities by the Urban Programme to support approved projects in areas of special social need. Central Government pays 75% and local authorities 25% of the costs of approved projects. The Programme aims to promote co-operation between different agencies and programmes, the private sector and the community, to achieve better delivery of services, to attract private investment and to promote innovative and imaginative approaches to urban problems. A wide range of types of project is supported, aimed at promoting the regeneration of local economies, improving the environment and meeting social need directly. [Pictures - before and after]

18. Projects designed to regenerate local economies (costing £87m in all) include infrastructure works and provision of serviced sites (around 150 schemes); assistance to firms in Industrial Improvement Areas for site and other improvements; provision of premises in converted or new buildings (more than 1,000 units); and training schemes for the most disadvantaged groups (the Programme contributes to the provision of over 15,000 places). On the environmental improvement front, £55m is being used in about 1,000 schemes involving refurbishment of buildings, reclamation of derelict sites, and canal and waterway improvements. Projects meeting social needs directly include around 1,000 sport and recreation schemes; special provision for under-5s; further education including English language teaching; services for the elderly, young families, disabled and young unemployed; hostel facilities; and crime prevention schemes.

19. Since 1982, a part of the Urban Programme has been set aside for Urban Development Grant (UDG) which is specifically designed to encourage private sector investment in the inner urban areas. UDG is available for capital investment projects which would not go ahead without some public sector assistance but which, with that assistance, are commercially viable and help to deal with urban deprivation. Any size or type of scheme is eligible: projects supported include conversion of redundant buildings into small industrial units; conversion of warehouses into residential apartments; development of shopping centres on vacant sites; and leisure facilities. An excellent example of the potential of UDG is to be found in Cardiff, South Wales, where a Welsh Office grant of £8.5 million has stimulated a £42 million private sector scheme for the redevelopment of some 28 hectares of derelict dockland in the heart of the city.

20. National Garden Festivals have been established as a means of regenerating decayed urban areas by reclaiming large tracts of severely derelict land. The

reclamation produces a significant planning gain and the high-quality landscape that remains is attractive for the development of housing, light industry or recreational use. The first festival was held in Liverpool in 1984 [Before and after pictures - with visitors] and the second was opened in May this year in Stoke-on-Trent. The Government has announced that further Garden Festivals are to be held in Glasgow in 1988, Gateshead in 1990 and in 1992 on a site yet to be selected in Wales.

21. The first Enterprise Zone was established in 1981 and there are now in 25 areas in the UK. They are an experimental policy, principally concerned with the revival of economic activity but not confined to inner cities. The areas selected had experienced economic decline over a long period and much of the land was vacant and neglected. Within the first three years of the experiment, the area of land not immediately available for development within the Zones had been reduced by 26%. Such re-cycling of mostly unused industrial land plays a part in reducing pressures for the release of "green field" sites for development.

(e) Deregulation without disintegration : the recent evolution of policy.

22. The system of development planning and control should operate as speedily and effectively as possible. Too often it has been criticised for delay and frustration. It is in the interest of development and conservation that decision-making should not be protracted and that the scope of controls should be reduced to those really necessary to protect the natural and the built environment. Inefficiency in the system will lead to lost opportunities for creating good housing, jobs and wealth and to the diversion of the energies of those responsible for conserving, enhancing and managing natural resources.

23. The present Government has taken steps to remove unnecessary controls, speed up and improve the operation of those which are necessary and to ensure that local planning control operates against a clear background of national policies and priorities on conservation and development. This has included legislative measures to:-

- (i) simplify the process of making and updating development plans,
- (ii) concentrate development control powers at district council level,
- (iii) increase the range of minor 'permitted development' for which no planning application is needed (although there are some exceptions or stricter controls in National Parks, Areas of Outstanding Natural Beauty, Conservation Areas, National Scenic Areas and in the Broads of East Anglia),
- (iv) allow Enterprise Zones to be created in the inner areas of some major cities in which developers enjoy a wide freedom from planning control and also financial incentives, and
- (v) create urban development corporations in London and on Merseyside with extensive powers to secure regeneration of rundown and abandoned dockland areas.

24. A series of major circulars to local authorities has been issued by the Government setting out the objectives which the planning system should achieve. These encourage a positive attitude to development, while emphasising the commitment to protecting the countryside, agricultural land, the nation's heritage, the Green Belt and the rural economy. Local planning authorities must take these into account in

deciding planning applications and in preparing their own policies. The thrust of the Government's policies is to maximise development opportunities within existing towns and permit the expansion of towns and villages only within the limits of infrastructure and social provision. In these ways communities in the cities, smaller towns and villages can be strengthened and people given a reasonable choice about where they wish to live, whilst at the same time development demands on the countryside can be kept to a minimum. Clearly, not all development can be accommodated in existing urban areas. Policies therefore need to be complemented by sensible provision for new development which respects the need to protect resources necessary for the future.

CHAPTER 8

CONSERVING THE HERITAGE

1. Despite the ravages of an industrial past and the population pressures of the present, much of the British Isles remains rich in its landscape, wildlife and historical heritage. Very little of the British countryside has not been touched by human activities at some time or another. Many of its most beautiful features, such as the "traditional" patch-work of pastures, woodland coppices, hedgerows, moor and heathland, are the direct result of farming practices and land-holding traditions in the past. What is so highly-valued today is frequently the result of past generations responding to economic, social and technological pressures in their own time. The challenge today is to maintain the diversity of habitat and wealth of species as recommended by the World Conservation Strategy. [Group of say, 4 pictures showing "typical" British scenes - inc. one with castle and one urban scene eg Bath Royal Crescent and one rural - Norfolk Broads.]

2. The lynch-pin of policies for the countryside in Great Britain is the Wildlife and Countryside Act 1981 (Northern Ireland has since introduced corresponding legislation). Concern has grown rapidly in the United Kingdom over the past 15 years or so about the rate at which wildlife habitats and other valued areas of countryside have been lost. The Act provides a comprehensive framework for safe-guarding wildlife and landscapes of primary importance. It also implements the European Community's 1979 Directive on the Conservation of Wild Birds, the Bern Convention on the Conservation of European Wildlife and Natural Habitats and the Bonn Convention on the Conservation of Migratory Species of Wild Animals.

3. The Act embodies the philosophy that the best guarantee for the future of Britain's countryside lies in the natural feel for it possessed by those who live and work there. It therefore sets out to strike a balance between the interests of agriculture and conservation through a process of voluntary co-operation involving agreements under which payments may be made if a particular management strategy loses income for the land-user. This is backed by the selective use of mandatory measures. The Parliamentary Select Committee on the Environment conducted an inquiry into its main provisions in 1985 and affirmed its value as a major instrument of conservation policy. Many of the improvements they suggested were put into effect by the Wildlife and Countryside (Amendment) Act 1985.

4. The Wildlife and Countryside Acts provide the legislative framework for implementing several of the guiding principles of the World Conservation Strategy. Such a framework would, however, mean little without adequate finance. There is always likely to be a gap between the level of resources the Government can make available and the scope of the need as perceived by some conservationists. Nevertheless, despite the competing pressures on limited funds, the Government has succeeded since the 1981 Act in increasing substantially the amount of money available to the 3 principal statutory agencies involved - the Nature Conservancy Council, the Countryside Commission, the Countryside Commission for Scotland and the National Parks. [Diagram of provision as a histogram in real money terms]

5. The Wildlife and Countryside Act 1981 also provided for a number of far-reaching measures designed to conserve fauna and flora including marine habitats. Among these was the introduction of a comprehensive system for the registration and licensing of certain species of birds and their keepers; a licensing system for controlling certain activities potentially harmful for wildlife; powers to designate marine nature

reserves and complete statutory protection for a number of threatened species. This adds up to a very comprehensive package. For example, the protection now afforded to every species of Bat (Chiroptera) occurring within Great Britain extends even to those residing within domestic premises.

(a) Conservation of the landscape

6. Perhaps the most important single contribution in England and Wales in terms of the establishment of statutory landscape protection areas was the designation between 1950 and 1957 of the ten National Parks by the National Parks Commission - the predecessor of the Countryside Commission - for their scenic beauty and potential for open air recreation. [Picture of Peak District National Park - "The first National Park to be designated: in 1950"]. They cover 13,600 sq kms - 9% of the area of England and Wales - with a resident population of 237,000, mainly in upland areas (see Figure) [Map showing Nat. Parks]. The appeal of the National Parks lies in their relatively wild scenery of mountain, moor and coastline and the harmonious way in which human settlements and human activity fit into the scene. The parks are administered by National Park Authorities, a third of whose members are appointed by Government Ministers. More than 500 staff are employed in the parks on duties ranging from day-to-day control of development to the negotiation of management agreements where farm capital grant is refused and the provision of visitor services. Annual expenditure is more than £11½ million, three-quarters of it from central Government.

7. In addition 36 Areas of Outstanding National Beauty (AONBs) have been designated by the Countryside Commission with others under consideration. Together they cover 17,089 sq kms, or more than 11% of the total area of England and Wales (see Figure.....) [Map]. As with National Parks, designation does not affect

ownership: but unlike National Parks, there is no requirement for specific programmes for recreation. Responsibility for planning and management rests largely with the local authorities. In Northern Ireland 8 AONBs have been designated, covering 250,000 hectares.

8. In addition to these particular categories of protected areas, there are 2 further unique areas whose landscapes the Countryside Commission recognise as being of National Park quality. The New Forest is an unenclosed area of woodland, heath and bog in Southern England, owned by the Crown and managed by the Forestry Commission for nature conservation, recreation, grazing and timber production. The Broads in eastern England contain a scenery of rivers, marshes and shallow meres, whose conservation and recreational importance are such that a proposal is soon to be put before Parliament to establish a special statutory authority for the area.

9. In Scotland the Countryside Commission for Scotland have identified the most important landscape areas. These, numbering 40 and equating to some 10,000 square kilometres, or 13% of the area of Scotland, were designated as National Scenic Areas by the Secretary of State for Scotland in 1980. [Picture: typical National Scenic Area landscape] They are subject to development control procedures designed to ensure that the scenic value of the land is taken into account in planning decisions. In addition the Commission has a general advisory role and is consulted by planning authorities in relation to the majority of developments in the countryside. There are substantive proposals for 4 Regional Parks to be designated to provide access and comprehensive recreational facilities for the public.

10. As a maritime nation, the British people are justifiably proud of their coastal scenery. Development pressures on coastal areas have increased significantly in

recent years. The need for special care in their conservation, development and management will clearly remain for the foreseeable future. Between them the Countryside Commission and the local authorities have defined 38 sections of coastline as Heritage Coasts comprising 1,263 kms of the finest coast of England and Wales - over 28% of the whole coastline - some of it coinciding with National Parks and AONBs. (see Figure) [Map]. Definition implies intensive management for conservation and recreation (eg by means of interpretive facilities for visitors). Some 750km of coast have been acquired and safeguarded by the National Trust largely as the result of a major campaign "Enterprise Neptune".

11. In addition to landscape protection by designation there is also an extensive system of conservation management in the countryside as a whole. This takes many forms, ranging from grants to land-owners for specific works to advisory services operating in both public and private sectors. These provide detailed advice, and even labour, to land managers. The advisory services make full use of both voluntary labour through the British Trust for Conservation Volunteers and other similar bodies and Manpower Services Commission schemes for young people. The work undertaken covers all aspects of landscape and wildlife management including the digging of ponds, building walls, renovating old buildings, as well as providing ranger services to help the public enjoy the countryside, whilst protecting the essential resource.

12. The Minister of Agriculture, Fisheries and Food has launched in conjunction with the Secretaries of State for Employment and the Environment, a farm and countryside initiative linked to and funded through the Government's Community Programme run by the Manpower Services Commission. The initiative, backed by the Development Commission, the Countryside Commission, the Nature Conservancy Council and the agricultural training board, is to encourage rural communities to put forward worthwhile projects of benefit to their own areas. Scottish Ministers are considering how best to assist the promotion of community programme supported projects for environmental improvements in rural areas in Scotland and will announce their intentions when considerations have been finalised.

(b) Conservation of Wildlife

13. Much of the public interest in conservation in the UK is focussed on the protection of wildlife. The high level of support for a multiplicity of voluntary organisations and the popularity of prime-time TV and radio programmes, magazines and books testify to the deep attachment felt by the British public for safeguarding wild animals and their habitats - whether in the UK or elsewhere. This should come as little surprise to the intelligent observer, since many of the founding fathers of the science of ecology were British and this proud tradition flourishes up to the present day. Government policies have evolved accordingly, with a strong emphasis on practical, science-based conservation. [Picture: Wildlife - Eagle, otter, fieldmouse, bats]

14. The Government's scientific adviser on wildlife matters, the Nature Conservancy Council (NCC), can trace its roots back to 1949, when its predecessor was established by Royal Charter. It was constituted in its present form in 1973 by Parliament. Under the Wildlife and Countryside Act 1981 a wide range of new duties was conferred on the NCC, especially regarding the protection of wildlife habitats. The implementation of these duties has since become the NCC's main priority and the Government's annual grant-in-aid has risen from £7.9 million in 1979/80 to £32.1 million in 1986/87. Much of this money is intended to enable the NCC to apply the protection afforded to important wildlife sites as fully as possible by the end of 1986.

15. The NCC has conducted a comprehensive Nature Conservation Review covering the whole of Great Britain. Based on the evidence collected in this review, it is pursuing a programme to establish a network of National Nature Reserves which embrace the most important surviving samples of the range of wildlife habitats in Britain (see

Figure) [Consolidated map with National Parks, AONBs, etc.]. At the beginning of 1986 there were 202 such NNRs in Great Britain, covering 150,000 hectares, and 41 NNRs covering almost 3,000 hectares in Northern Ireland. Such sites afford a high degree of protection to wildlife since they have full statutory backing and can be declared only over land owned either by the NCC or where a formal agreement has been reached to manage the land as a reserve under NCC.

16. The Nature Conservation Review has also provided the basis for identifying a larger series of key wildlife habitats for notification as Sites of Special Scientific Interest (SSSI). Under the 1981 Act the NCC is required to identify sites which meet certain scientific criteria, to list the activities which could damage the special interest of the sites and to notify owners and occupiers accordingly. It is then incumbent upon the owner or occupier to notify the NCC if any work is proposed which might damage the special wildlife interest. Up to 4 months is allowed to enable the two parties to reach agreement on how to proceed. This might be by means of a negotiated settlement involving payments under a management agreement.

17. If a management agreement has not been negotiated and a site of special scientific interest is threatened, the NCC can also apply to Government Ministers to make a Nature Conservation Order. Such orders set a period during which specified operations cannot be carried out for up to twelve months to enable parties to negotiate on how to proceed, as they would in the case of an SSSI. Compulsory acquisition powers are available to the NCC as a final resort, but to date these have not been necessary. 19 such Orders had been made by the beginning of 1986 of which 13 remain in effect.

18. The procedure is somewhat different if farm capital grant is involved since it is a rule of the grant schemes that the owner or occupier must follow a prescribed

consultation procedure with a view to avoiding environmental damage. If grant is subsequently refused on conservation grounds the owner or occupier may, and in some cases must, be offered a management agreement. Similar arrangements apply in National Parks and in the Broads of Eastern England where the appropriate National Park Authority or the Broads Authority seeks to ensure with farmers that operations are in harmony with the landscape.

19. There are some 4,000 SSSIs throughout Great Britain, with a further 1,900 proposed new sites. The sites notified so far cover some 6-7% of the land area of Great Britain. In most cases owners and occupiers carry on their existing management of these sites since it is often that very management which has fostered the 'special interest'. But equally, many will wish to make changes - and these could be damaging to the conservation interest of the land. These owners and occupiers will therefore seek management agreements to compensate them for the extra income or value which they will forego in refraining from the changes. At the beginning of 1986, over 240 management agreements had been made involving capital costs of £715,000 and annual payments of over £350,000. The payments which will undoubtedly grow, are negotiated under statutory Financial Guidelines, currently being revised.

20. Supplementing the statutory protection mechanisms are a number of programmes designed to enable various international obligations to be met and to encourage local authorities and voluntary organisations to establish nature reserves. The 1979 EC Birds Directive requires sites meeting certain criteria to be designated by the Government as Special Protection Areas. To date the NCC has identified 149 such sites and designations are proceeding as the sites are re-notified as SSSIs. As at the beginning of 1986, 15 sites had been so designated. Similarly, 129 sites have been identified as meeting the criteria under the Ramsar Convention on Wetlands of

International Importance mainly as habitats for waterfowl, and at the same date 28 sites had been so designated. [Picture: Ramsar site also SPA] The Government recognises that the UK's record on designating these internationally important sites is not as good as it would wish. This is mainly because it has been necessary to give greater priority to the SSSI re-notification programme. As the latter proceeds, efforts are being made to speed up the rate of designations under the international agreements.

21. Local authorities and voluntary bodies are given every encouragement to reserve extensive areas for conservation and make management agreements. Local authorities have established over 120 local nature reserves which they own, lease or manage. The Royal Society for the Protection of Birds owns and manages a number of important bird reserves. Grant assistance is available from the Countryside Commissions and the NCC to voluntary organisations to supplement income from other sources to purchase, lease or otherwise manage voluntary reserves and an extensive network now exists, many open to members or to the general public. Over 700 sites of special scientific interest are now protected by local nature conservation trusts, and the voluntary sector makes a major contribution to the recording of species distribution and the monitoring of habitat change. This voluntary effort makes a major contribution to the overall costs of the national conservation effort.

22. In recent years, attention has been focussing increasingly on the value of marine habitats for conservation. The passage of the Wildlife and Countryside Act 1981 introduced protective mechanisms and the NCC have drawn up an initial list of 7 sites. An extensive consultation process has been devised to ensure that proposals are adopted only with the agreement of all interested parties. For this reason and because of the need to concentrate on other priorities progress has been slower than

hoped for. However, there is now every prospect of the early establishment of the first statutory Marine Nature Reserve. The Government has emphasised its commitment to bringing this about in the near future. In the meantime, a number of voluntary reserves have already been established, at St Abbs Head (in Berwickshire), Skomer (off the coast of Dyfed in Wales), and Lundy (off the Devon Coast).

Conclusions

23. Policies for conserving the natural heritage have tended to focus on the need to safeguard key areas for wildlife and landscape. Gradually attention among conservationists is shifting to the need for further measures in the wider countryside. The Government believes that it will be possible to achieve what is needed by adapting existing policies rather than introducing any major further legislative controls. Policies clearly need to be sufficiently flexible to provide for changing circumstances. The basic structures now in place under the Wildlife and Countryside Acts have proved themselves workable: they should be capable of evolving to meet new challenges. The voluntary movement - working, for example, through the Farming and Wildlife Advisory Groups - is playing a major part in creating the understanding that is essential for the future. Environmental education and information - through the Council for Environmental Education and other bodies - needs to be expanded, for it is a key mechanism in achieving the country's conservation goals.

(c) The Built Heritage

24. The built heritage of the United Kingdom is one of the richest and most varied in the world. The British public has a high regard for their monuments and historic buildings, which attracted 11 million visitors in 1985.

25. As with our natural heritage, important buildings and structures are formally designated and protected by law. Various statutory agencies are responsible in different parts of the UK for the detailed recording of buildings and sites of historical or archaeological importance. Lists are compiled by the appropriate Government departments. Buildings that are listed cannot be demolished or altered without the consent of the local planning authority. This does not mean that these buildings can never be altered or replaced, but it does mean that the case for conservation must be given proper weight. By the end of 1985 well over 400,000 buildings were listed in England, Scotland and Wales, an increase of more than 200,000 since a systematic re-survey was begun in 1970. (See table at Figure) [Adapt table from Page 4 of "Caring for the Past"]. By the end of 1988 it is expected that one building in 40 in England will be listed. Similar survey work is underway in other parts of the UK.

26. A different form of protection applies to some of our oldest structures and archaeological remains. Those of national importance are scheduled as ancient monuments which then require the permission of the appropriate Secretary of State before any repairs or alterations can be carried out. There are almost 20,000 scheduled monuments throughout Great Britain. A positive development in recent years has been the refurbishment and restoration of parts of our industrial heritage, such as dockland buildings, and redundant factories.

27. Designation is the first step in conservation. All such buildings must be adequately maintained and their architectural features faithfully conserved. In the UK experience the most effective method of achieving this is to keep the buildings in use. Central and local government and their agencies are responsible for the more important public buildings - the national monuments, museums and galleries. But by

the far the greater number of historic buildings - estimated suggest more than 350,000 - are privately owned by individuals or charitable trusts. For over 30 years public funds have been available to give financial help towards their upkeep. Grants may be paid in respect of both individual buildings and monuments as well as groups of buildings in, for example, conservation areas. Over the past 20 years 5,000 such areas have been designated. [Picture: conservation area]

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28. The Government, statutory agencies, private charities and, of course, private owners, all combine to manage, conserve, present and use historic buildings and monuments. The Department of the Environment maintains Royal Palaces like Hampton Court, Windsor Castle and the Tower of London, including those still occupied by members of the Royal family. It also maintains and manages Royal Parks like Regent's Park and Richmond Park. The Historic Buildings and Monuments Commission (HBMC) is responsible for some 400 monuments, some of world-wide importance like Stonehenge and Hadrian's Wall. CADW (Welsh Historic Monuments) is responsible for some 120 monuments in Wales like Caernarfon Castle. In Scotland the Historic Buildings and Ancient Monuments Directorate of the Scottish Development Department is responsible for 300 monuments, which include Edinburgh and Stirling Castles. The National Trust and the National Trust for Scotland, the largest of the private charities, have many houses open to the public as well as extensive areas of open countryside and coastline. In addition, over 20,000 listed church buildings are maintained by the church authorities.

29. The Government contributes over £120m annually towards maintaining the heritage, via the HBMC, CADW, Scottish Development Department and other agencies. The Government also gives financial assistance to the National Heritage Memorial Fund which, among other things, offers financial support towards the upkeep of great houses

and their contents. The Government's contribution is net of over £11m revenue obtained from admissions to public monuments. Further income accrues to the service industries of which those related to tourism are - as explained more fully in Chapter 6 - among the fastest growing in the UK economy. The National Tourist Boards have also been able to assist in conserving and developing the built heritage through assistance to encourage provision of visitor amenities.

30. Public interest in the UK's built heritage is increasing year by year. It is being stimulated by the activities of bodies like the Heritage Education Groups of the Civic Trust, and the separate Heritage Education Trust. The protection of this heritage is a matter of international as well as national concern. The United Kingdom Government recently signed the Council of Europe Convention for the Protection of the Architectural Heritage. This is concerned with the identification, protection, conservation and use of historic buildings, monuments and sites. The UK also recently ratified the World Heritage Convention in 1984, a world-wide convention which seeks to bring international recognition to both major historic buildings and natural sites. It does this by placing agreed buildings and sites onto a World Heritage List. Although this offers no additional statutory protection it enhances the importance of these properties and thereby the public's awareness and knowledge of them. Seven nominations have been made for the World Heritage list, among them Stonehenge

* (see Figure) [picture of Stonehenge]. Further nominations will be made.

CHAPTER 9

A CLEAN AND HEALTHY ENVIRONMENT: ACTION AGAINST POLLUTION

History

1. Everybody knows that the industrial expansion of 19th century Britain brought with it pollution. It is not always appreciated how severe this was. From the 1840s onwards the use of coal burning furnaces to generate steam, coupled with the smoke from domestic fires, created acute nuisance in many cities and towns, and unquestionably affected people's health. The emission of corrosive fumes from the alkali industry which caused appalling devastation in the countryside of Lancashire, Northumberland and Lanarkshire became so intolerable that in 1863 it generated the first industrial air pollution control law in British history. As late as the early years of the 20th century, the contamination of rivers and canals with sewage and other organic matter produced so much methane gas that it was said to be a common amusement for small boys to set the vapours alight and watch blue flames 8 ft high spread across the water, enveloping the barges as they went! As recently as the 1950s masses of detergent foam were a common sight on some of the rivers in industrial areas, creating a hazard when they were blown onto nearby roads. The unhealthiness of the city air was demonstrated most dramatically in the London smog of December 1952 when between 3,000 and 4,000 people died prematurely, and as late as 1962/63 a further smog in London caused a significant increase in hospital admissions. [Picture:

* London Smog] The acidification of fresh waters appears to have affected some lakes in the Galloway region of south west Scotland as early as the 1830s, while during the present century it proved impracticable to grow coniferous trees on the uplands between Manchester and Sheffield because of the high concentrations of air pollution.

2. It is not surprising that, faced with these intolerable conditions, pressure for action also began early. The first campaigns to control steam furnaces started in the 1840s. The legislation to curb the alkali industry was rapidly succeeded by other laws applied to different industrial processes. The control machinery has broadened progressively to cover air, water and land pollution.

3. The British approach to pollution control began by being responsive to obvious, acute hazards and had the protection of human health at its centre. Second, it dealt with problems one by one and area by area, as scientific understanding and public demand dictated. This approach led in turn to legislation and institutions with specific roles. Third, the economic impact of pollution control measures on industry was taken into account from the beginning: for example, the philosophy of 'best practicable means' for abating air pollution, which demands a blend of what is technically feasible and economically sustainable, was laid down in statute in 1874. Finally, the case for action has needed to be established, through a scientific demonstration that pollution was causing damage the community should not accept and a technical demonstration that action was feasible, at acceptable cost, and likely to bring commensurate benefits.

Results

4. This reactive and pragmatic process has brought many real successes. Smoke emissions, especially from coal combustion, have fallen by 85% since 1958. Two thirds of the urban properties in the United Kingdom now lie within smoke control areas. Sulphur dioxide emissions have fallen by 42% since 1970 and by 24% since 1980 and the average annual concentrations of this gas in the atmosphere are now about 1/3rd of the worst levels of the early 1960s. [Chart] As a consequence, winter sunshine in the

centre of London, Glasgow and other large cities is now as bright as in the surrounding countryside, and when public buildings are cleaned of the smoke and grime of past decades they stay clean. ["Before" and "after" pictures - with Sunshine chart]. These changes are believed to have played a small but worthwhile part in securing the dramatic reduction in deaths from respiratory disease which has taken place since Victorian times.

5. Pollution from motor vehicles has also come under increasingly tight control. Lead emissions were brought down dramatically in the 1980s, despite increasing car mileage, especially when the maximum permitted amount of lead in petrol was reduced from 0.4 to 0.15 grams per litre on 31 December 1985. Lead free petrol will become increasingly available in Britain in the late 1980s and it is hoped that this form of pollution will be phased out altogether by the end of the century. [Illustration: lead emissions] Because it is the body's exposure to lead from all sources that counts, the British Government has consistently worked to negotiate reductions of lead in paint and cans and has also taken steps to reduce its presence in drinking water.

6. The rivers and lakes of Britain have also been cleaned up. In 1958 7% of the total length of our tidal and non-tidal rivers and canals were classed as grossly polluted whereas by 1980 only 2% came into this category. 90% of all river and canal length in England and Wales and 99% of all river length in Scotland are now in good enough condition to supply drinking water and support fish. Thirty years ago the tidal Thames was virtually devoid of life whereas now it supports over one hundred species of fish, some in abundance. The first mature salmon to be caught in the Thames since 1835 was taken in 1974. There has been a similarly notable improvement in the Clyde River system. Other major estuaries, including the Tyne, Tees, Humber and Mersey, are also being improved.

7. For centuries the British have been a seafaring people and the sea has a special place in our literature and culture. Because the seas are shared with other nations, action to protect them has been taken internationally, within the European Community and wider groupings of nations. The disposal of wastes to sea has been regulated under the Oslo, Paris and London Conventions, all negotiated between 1970 and 1974. Britain suffered severe oil pollution from the first massive super tanker wreck - that of the 'Torrey Canyon' in 1967 - and has played an active part in international measures to end this particular threat [Picture of "Torrey Canyon"]. This has involved both international regulatory action and the voluntary cooperation of industry, and in very recent years there have been signs of dramatic improvement. Sightings of oil slicks at sea around Britain were 18% less in 1984 than in 1983, and slicks in bays and near-shore waters were halved. There has also been a decline in the number of beach pollution incidents. Discharges of radioactivity to the sea, notably from the Sellafield works of British Nuclear Fuels PLC, have been reduced progressively over the years and in 1986 new limits will be set to reflect improvements achieved by the commissioning of new plant. This forms part of an on-going investment programme which, when completed in the early 1990s, is designed to reduce discharges to less than 0.74 TBq a year of alpha activity (in contrast to an actual discharge of 14 TBq in 1984) and about 296 TBq a year of beta/gamma activity (other than tritium), for which the actual discharge in 1984 was 1,190 TBq.

8. The United Kingdom has had to face a particular problem with derelict land. In 1982 there were some 45,000 hectares in England so damaged by industrial or other development that they needed treatment before they could be re-used. In 1983 there were a further 14,000 hectares in this category in Wales. Much of the land was covered by spoil and waste tips, old mineral workings, former iron and steel works or other derelict industrial plant. [Picture of typical industrial dereliction "Before"].

9. Clearance of such dereliction has been carried out by local authorities in England and Wales, in the latter case with considerable help from the Welsh Development Agency, and by the Scottish Development Agency in Scotland. The Government increased the funds available for reclamation in England and Wales from £31m in 1979 to £92m in 1985/86. In the latter year resources set aside in Scotland for this purpose amounted to £34m. At present 1,500 to 1,700 hectares of land are being reclaimed every year in England and Wales, the majority used for urban redevelopment, reducing the pressure for new building on the adjacent countryside. Other land not suitable for that kind of use is being turned into green space such as playing fields. Although much remains to be done, substantial progress has been made throughout the country. For example, in Wales alone over 5,600 hectares of derelict land have been reclaimed since 1967 at a cost of over £111 million. Major successes have included the reclamation of the lower Swansea Valley, once the world centre for the non-ferrous metal industry, and one of the worst examples of industrial pollution in Europe. Here some 320 hectares of land have been cleared of derelict smelting works and some 7 million tonnes of toxic slag to provide sites for a thriving industrial Enterprise Zone and commercial and leisure developments. [Picture of typical site - "After"].

Evolving Policies

10. Within the past 10 years the British approach to pollution control has changed. While the protection of human health remains a first objective, new efforts are being made to safeguard and protect livestock, crops, forests, historic buildings, wildlife and natural ecological systems. Another shift has come through the recognition that while in the past it was right to concentrate on those kinds of pollution that posed immediate, acute threats, it is nonetheless important to be concerned with long term exposure to substances at lower concentrations which over the years may also have a

significant damaging impact. A third development has been towards measures that will stop problems arising, especially through designing industrial processes and equipment that are inherently non-polluting, or give rise to minimal quantities of pollution and waste. The control of development under the British town and country planning system is a further means of ensuring that before a development is sanctioned its effects on the environment are taken fully into account and its acceptability ensured.

11. Britain accepts, as any industrial country must, that some waste is likely to be generated by any industrial activity. We are also acutely aware of the fact that our national prosperity depends upon our manufacturing industries and that the pollutants and wastes with which we have to deal arise from the creation of products which are themselves socially beneficial. The aim is to achieve a balance, which enables the benefits of industrialisation to be enjoyed without the disbenefits of damage to human health or to the natural environment. The skill lies in so adjusting this balance that the overall net benefits - allowing for the costs of both damage and control - are as large as possible. This demands scientific and technical research and development as an integral part of the industrial process. Work on lean burn engines for motor vehicles, on power station burners that generate lower quantities of nitrogen oxides at source than the current models do, on fluidised bed combustion that increases the efficiency of power stations and reduces sulphur oxide emissions at source and on many analogous developments, is being pressed forward. There is also a considerable volume of research and development aimed at reclaiming useful materials from waste and the Government has funded experimental plants that recover useful materials from municipal refuse and convert the organic material into a fuel.

12. The purpose of pollution control is to prevent damage. Those emissions that enter the environment need therefore to be dispersed and diluted in such a way that they do

not cause harm. The British approach has been to define environmental quality standards which are measures of the maximum concentration of a particular substance that ought to be allowed in the environment. Working back from such figures, it is then possible to limit emissions with the confidence that the environment will be safeguarded. This policy has been applied particularly to the control of water pollution, where the goals of environmental quality have taken into account the uses to be made of the rivers in question. Tighter water quality standards have been applied to watercourses which provide domestic water supplies than to those which have been used for industrial purposes. Where it is clear that acceptable environmental quality will not be obtained without tighter standards, the controls on discharges have been stiffened. Rather similarly, where a polluting discharge to the atmosphere from industry requires regulation, the use of 'best practicable means' ensures that the most advanced technology that is economically sustainable is deployed to that end. [Picture]

13. In Britain, as in other countries, tests to establish the safety of new chemicals are now being applied and a notification system is in operation so that new substances will not come into widespread use until their environmental acceptability has been evaluated. Something similar has been in operation under a voluntary scheme to regulate pesticide use for several decades. It has now been put on a statutory footing by new legislation passed in 1985. A further development of policy has come through the elaboration of the concept of 'best practicable environmental option' which simply means that a waste, or polluting discharge, should always be channelled into that environmental medium where its impact will be least and where controls can be most effectively and economically operated.

14. The principle of cost optimisation has been a persistent feature of the British pollution control scene. The United Kingdom has strongly endorsed the 'polluter pays

principle', which is now generally accepted in the European Community and in the Organisation for Economic Co-operation and Development. Under the 'PPP' a polluter bears the cost of making his activities environmentally acceptable. Those who purchase a manufactured product thus themselves pay for the action needed to produce that product in an environmentally acceptable way.

Operational Machinery for Pollution Control

15. Only a brief and general summary of the executive mechanisms by which pollution control is achieved in Britain can be given here. Responsibility for the national strategy rests with Central Government. The Secretary of State for the Environment has overall responsibility for co-ordinating Government action against pollution. Within England, the Department of the Environment also carries responsibility for the operation of the pollution control strategy, while in Scotland, Wales and Northern Ireland the respective Secretaries of State have this duty. Central Government is also the main source of funding for many of the pollution control activities outlined above, acting in most cases through intermediaries such as local authorities (for example for the reclamation of derelict land) or Government pollution control agencies (for example for industrial air pollution regulation).

16. Central Government has direct responsibility for some controls. For example emissions from motor vehicles are regulated through vehicle Construction and Use Regulations made by the Secretary of State for Transport. Major planning applications, or those that have been the subject of appeal, come for determination to the Secretary of State for the Environment, or his counterparts in Scotland, Wales and Northern Ireland. Much pollution control is however operated through agencies of Government like the Industrial Air Pollution Inspectorate (which is a part of the

Health and Safety Executive), the Radiochemical Inspectorate and Hazardous Wastes Inspectorate (which form part of the Department of the Environment and have their counterparts in the Scottish Development Department) or the Industrial Pollution Inspectorate in Scotland. Local Authorities also have a substantial pollution prevention and control role, dealing with waste disposal, air pollution from domestic and minor industrial sources, the avoidance of nuisance and action on derelict land. They are also responsible for both regional and local planning strategies and for the greater part of development control. In England and Wales the Water Authorities are responsible for pollution control covering the inland estuarial, coastal and underground waters in the regions (the boundaries coinciding with those of the major catchments) while in Scotland similar responsibilities for the operation of the whole water cycle, including water supply, sewage treatment and disposal and river quality, rest with River Purification Boards and local authorities.

17. The history of pesticide use is an excellent example of the combined efforts of many agencies and organisations in the solution of a problem. Wildlife deaths in the 1960s were eventually traced to organochlorine pesticides and through a combination of voluntary and legislative procedures the use of these was drastically reduced and replaced by pesticides which were less hazardous to the environment. The non-statutory pesticide Safety Precautions Scheme has successfully controlled the introduction of pesticides and monitored their use, integrating the efforts of the agrochemical industry, the farming community and conservation interest. To meet changing needs the PSPS principles and procedures are now incorporated into the legislation introduced in 1985.

Advice

18. Like other Governments, the United Kingdom has sought authoritative advice to guide it in its pollution control policies. In 1970 an independent Royal Commission

on Environmental Pollution was set up, with powers to examine any pollution issue it chose. It has now published 11 reports, some general and some addressing specific topics like radioactive waste disposal, the pollution of the sea by oil, agriculture and pollution, pollution in estuaries and coastal waters, the best approach to air pollution control and lead in the environment. The reports have been widely acclaimed abroad as well as at home and have greatly helped the Government in improving its policies. Independent of Government, and able to take evidence from any interested individuals or groups within the country, the Royal Commission provides an invaluable scrutiny of the workings of the national machinery and a reassurance to the community at large.

The Future

19. One feature of recent decades has been the increasing proportion of decisions about pollution control that have been taken internationally. The European Community has adopted a number of Directives on the regulation of particular substances and a number of Conventions have been negotiated. The international dimension to decisions about pollution control can be expected to expand in the future. For it is a fact that many pollutants, dispersed through the media of air or water, know no frontiers and are capable of exerting an influence at a considerable distance from their source.

20. The United Kingdom Government fully recognises international concern over the environmental effects of sulphur dioxide and nitrogen oxides produced when fossil fuels are burned. The Government has announced its intention to continue to reduce national emissions of sulphur dioxide, which is ^{also} transported long distances through the air and contributes to the acidification of rain and freshwaters in the UK and other countries.

A reduction of over 42% in national sulphur dioxide emissions has already been achieved. Many factors have contributed to this, including substantial improvements in the efficiency with which energy is used, important and probably permanent changes in the pattern of energy usage and industrial restructuring and modernisation. Some 25% of this reduction has been achieved since 1980 and the Government hopes to increase this to 30% by the later years of the century, despite the expectation of substantial industrial growth and a likely increase in electricity consumption. The Government also aims to reduce national nitrogen oxide emissions, which have changed little over the past decade, by some 30% on a similar timetable. Action to improve rivers will continue and particular effort is being devoted to cleaning up the Mersey in North West England, which is one of the most grossly contaminated major estuarine systems in the country. Britain will host an international conference on the North Sea in 1987. The search for more effective technology for abating pollution will go on. For example, the Central Electricity Generating Board is testing new burners designed to create much less nitrogen oxide in power stations, and is developing pressurised fluidised bed combustion technology in collaboration with the National Coal Board. This has the potential to reduce sulphur emissions and improve combustion efficiency. The British objective is a clean and healthy environment. Our research, and our control efforts, will continue to be directed towards this objective, in co-operation with other countries.

INVOLVING THE COMMUNITY: VOLUNTARY ACTION AND PUBLIC ENJOYMENT

"Volunteering is fast ceasing to be an activity practised by a small minority for the benefit of the majority but it is becoming the natural means whereby the majority of citizens may become involved in their own community, whether in the form of pressure groups whether by physical work in their immediate environment or in other ways".

1. This statement was included in a report presented by a Working Party set up by the Government prior to the United Nations Conference on the Human Environment at Stockholm in 1972. The message it contains acted as a clarion call to the voluntary movement and has had a profound effect on Government thinking. The voluntary movement has experienced tremendous growth in the past few years. It has contributed much to the recent popularity of the environment as an issue of public and political debate; it has exercised increasing influence on the development of environmental policies; and it has become a major instrument of practical conservation.

2. It would now be unthinkable to imagine environmental policies without the contribution of this voluntary movement. This is as it should be: as pointed out elsewhere in this Report, effective environmental policies require the positive backing of all sections of the Community. The Government by itself possesses neither the resources nor the expertise to undertake every element of environmental policy. It needs the commitment and dedication of volunteers backed not only by individual men, women and children but by the considerable weight of all sections of society, including the wealth creators.

3. The Government is committed to working alongside the voluntary movement by providing financial assistance; by participation in a meaningful policy dialogue; by

encouraging industry to sponsor conservation; and by creating the political climate and policy framework within which the movement can in its own right pursue practical conservation.

The Movement

4. The numbers of people involved in some way in voluntary environmental groups run into millions. Bodies ranging from the small neighbourhood community group concerned about the conservation of local amenities such as trees, through local nature conservation trusts and Civic groups, to large, well-funded, national organisations all have a contribution to make. Perhaps the one which comes most readily to mind however is the National Trust, one of the oldest organisations with over a million members and with an annual income running to some £60 million. With the National Trust for Scotland, the Trust makes available many of the nation's outstanding historic buildings and attractive countryside to visitors. [Picture of attractive NT historic property]. On the wildlife conservation front, the Royal Society for the Protection of Birds, with 400,000 members, and the Royal Society for Nature Conservation, with its 46 associated nature conservation trusts, have had a profound influence.

5. The expertise of these bodies lies in their ability to present history and the environment by opening their doors to the public. Other voluntary organisations focus attention on other major issues of public concern. Many are active leaders in environmental education, and some contribute significantly to law enforcement. As already noted, it was the voluntary movement which, in association with the statutory conservation agencies, took up the call in the World Conservation Strategy to produce a "Conservation and Development Programme for the UK" in 1983. It is also the voluntary movement which has drawn attention to the need for large-scale environmental

education to improve the level of environmental awareness of the entire UK population so that environmental debate might be better informed. Environmental clubs for young people have been established, like the Royal Society for Nature Conservation's "WATCH", with 30,000 members, and the Royal Society for the Protection of Birds' Young Ornithologists Clubs, with 85,000 members. Meaningful decisions need to be based on the widest possible participation - though this does not guarantee that everyone will agree the final outcome - or even that occasional mistakes will not be made!

Practical Conservation

6. Throughout the country there are large bands of volunteers devoting their leisure time to practical conservation work. This has been one of the fastest-growing areas of environmental concern. For example in 1984/85 the British Trust for Conservation Volunteers and the Scottish Conservation Trust organised the equivalent of 190,000 days of work in urban and rural areas on tasks such as clearing ponds, planting trees, building paths, repairing dry stone walls and fences and clearing scrub. There are local Conservation Corps attached to the majority of nature conservation trusts. Increasingly, this work is being organised in association with those parts of Government involved with employment creation (notably the Manpower Services Commission) and urban regeneration. Much of the support Government gives is financial. Various grants programmes are administered by Government Departments both for special conservation programmes and to assist with management costs and these are supplemented by grants available from the Nature Conservancy Council and the Countryside Commissions. [Picture: BTCV scheme, before and after]

Groundwork

7. An important recent development is the creation of Groundwork Trusts. These seek to tackle the problems of the countryside in and around cities and towns. The

Countryside Commission has received additional funds over (£2½ million in 1986/87) for this work. Groundwork Trusts provide a means by which the work of public agencies can be co-ordinated. More importantly they mobilise resources from the private sector, generate income themselves and involve the community through voluntary action in the improvement of the environment and the creation of recreational opportunities. A similar approach has been developed in Scotland by the Central Scotland Countryside Trust.

8. Six Groundwork Trusts have so far been set up in the North-West of England and one in South Wales. They have been so successful that the Commission, with the Nature Conservancy Council and the British Trust for Conservation Volunteers, has established a Groundwork Foundation. Its aim is to promote the Groundwork approach nationally, to raise more resources for Groundwork and to create 3 or 4 trusts a year for the first 3 years of a 5 year programme. The Royal Society for Nature Conservation has agreed to co-ordinate more than 30 voluntary Urban Wildlife groups which are springing up in many major cities and towns.

Business Sponsorship

9. In March 1983 the Secretary of State for the Environment launched a scheme to encourage the wider involvement of the business community in conservation. The concept is simple. Potential sponsors are put in touch with voluntary bodies who wish to undertake conservation projects, which might include the purchase of threatened wildlife sites or the introduction of a conservation awards scheme for young people. The World Wildlife Fund UK act as the brokers for the scheme. Its success in generating extra cash for conservation as well as in promoting closer links between business and the voluntary movement has encouraged a number of other voluntary

organisations to promote similar activities. The Countryside Commission for Scotland initiated a similar sponsorship scheme in 1984.

Conclusion

10. The role of the voluntary movement to the development and working-out of environmental policies is vital. The Government will therefore continue to stimulate wider environmental awareness and to encourage the voluntary movement in its effort to enrol an even wider cross-section of the community. It considers that even closer links between the business community and the voluntary movement are both desirable and necessary if levels of spending on conservation are to keep on rising steeply. "Conservation is for everyone" should not simply be an empty catch-phrase. It is an objective that all those who desire a better environment should be seeking to bring about.

THE INTERNATIONAL DIMENSION

"The resources of the environment constitute both the basis and the limits of economic development; and their wise management is one of the most important components of national and international policies".

1. This statement by Environment Ministers of the Economic Summit Countries at their informal meeting in London in December 1984 encapsulates the spirit of the World Conservation Strategy. It articulates what has been a growing, albeit innate and intuitive, strand of British policy over the past generation. The statement that the natural environment does not recognise national boundaries is no more than a truism; yet it is not always easy adequately to reflect this fundamental truth in specific areas of policy.

2. The approach of the United Kingdom to the international dimension of conservation and development can be conveniently considered under three broad headings:-

(a) International co-operation (including conventions and institutions);

(b) International trade;

(c) Aid to developing countries.

3. These are areas of formal action, mostly at Governmental level. But the UK has a very large number of scientists and conservationists with knowledge of other countries, and they have a world-wide network of contacts. Many are undertaking

research in developing countries with support from international foundations and institutions, including non-governmental organisations. The Government welcomes this broad, informal effort, which is further extended by the international linkages among non-governmental organisations.

International Co-operation on Conservation

4. The United Kingdom fully supports and has ratified the four worldwide conservation conventions commended by the World Conservation Strategy. The United Kingdom's Dependent Territories are included in these ratifications, they are responsible for implementing the conventions under their own domestic legislation. Three of the conventions, the Ramsar, Bonn and World Heritage Conventions essentially represent undertakings by the contracting parties to conserve their national wildlife and cultural heritage (in the case of the Bonn Convention in co-operation with other states who form part of the migratory range of the species concerned) and details of what the UK is doing in response to them are given in Chapter 8. The fourth, the Convention on International Trade in Endangered Species (CITES), requires co-operation and assistance among the participants to ensure that trading pressures do not further endanger wild flora and fauna (see also paragraph 10 below).

5. Quite apart from these worldwide conservation conventions, the United Kingdom actively supports and participates in a range of regional conservation agreements. (These include the Bern Convention on the Conservation of European Wildlife and Natural Habitats; the various conventions and conservation measures that form part of the Antarctic Treaty system; the 1983 Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region which affects the dependent territories in the Caribbean; and various European Community measures such

as the 1979 Directive on the Conservation of Wild Birds, the 1983 and 1985 Directives on Harp and Hooded seal pup products and the 1981 Regulation on whale products. Where necessary and appropriate, the provisions of these measures have been incorporated in UK law since it is a fundamental principle of UK policy that it is not enough to pay lip service to the principles of conservation; those principles must be translated into practical decisions.

6. This translation brings its own problems as conservation requirements are reconciled with other competing pressures. Very difficult judgements have to be made but, as indicated elsewhere in this report, the procedures adopted are designed to find a balance and consensus.

7. Specific agreements like these are negotiated within organisations which themselves provide the ongoing basis for wider international cooperation. The UK strongly supports the United Nations Environment Programme (UNEP), in which it has been active since its foundation. It likewise supports the work of the International Union for Conservation of Nature and Natural Resources (IUCN) - co-sponsors with UNEP of the World Conservation Strategy - and the Council of Europe (COE) in the conservation field. The environmental concerns of UNEP go wider, embracing pollution control and environment protection generally and promoting sound development through the work of the Committee of International Development Institutions for the Environment (CIDIE), and the UK also supports substantial environmental efforts in the United Nations Economic Commission for Europe (ECE), the Organisation for Economic Cooperation and Development (OECD) and, of course, the European Community where (as Chapter 9 shows) a considerable volume of environmental law is now being developed. OECD has a Development Assistance Committee (DAC) which, like UNEP's is strengthening the environmental dimension in overseas aid planning - something the UK welcomes and is itself promoting in its bilateral aid programmes.

8. Some of this international effort is led by institutions within the United Kingdom. IUCN's Species Conservation and Wildlife Trade Monitoring Units, with the Protected Areas Data Unit, are based at Cambridge, while the Royal Botanic Gardens at Kew are the base for their records of endangered plant species. The International Council for Bird Protection has its headquarters in Cambridge. The Secretariat of the International Whaling Commission is also located in Cambridge and the International Waterfowl Research Bureau at Slimbridge. The Monitoring and Assessment Research Centre in Chelsea is a global focal point for the compilation of data about environmental trends.

International Action against Pollution

9. As a member of the European Community the UK has participated in three successive EC Action Programmes in the Environment and is about to join in discussions on the fourth. Community Directives cover such topics as clean air, water quality, waste disposal and the prevention of risk from toxic chemicals. Their number continues to grow.

10. The sea is an international medium and practical measures to protect it have to be similarly based. In western Europe the dumping of wastes at sea in the north east Atlantic was regulated by the Oslo Convention as long ago as 1972. Also in 1972 the UK played a leading part in negotiating the London Convention which is a global measure to curb the dumping of waste anywhere in the world ocean. The Paris Convention, agreed in 1974, regulates the pollution of the sea by rivers, estuaries and coastal outfalls. In 1985 the British Government participated in a meeting to discuss the protection of the North Sea, convened by the Federal Republic of Germany, and it will host the second such Conference in 1987.

11. The air moves freely across frontiers, bearing pollutants with it. "Acid rain" caused by the deposition of sulphuric and nitric acids, which themselves derive from sulphur and nitrogen oxides produced in fossil fuel combustion, is a major concern in Western Europe. So is forest die-back in Germany, Switzerland and other countries. Air pollution by sulphur and nitrogen oxides, the acids derived from them, and the ozone produced by further chemical reactions in polluted air, appears to be strongly implicated, together with climatic and other stresses, as a factor causing this die-back. As already mentioned the UK has ratified the Geneva Convention on Long Range Trans Boundary Air Pollution, participates in the continent - wide monitoring and research programme this has established; and has accepted an aim of policy to reduce national sulphur dioxide and nitrogen oxide emissions to 30% below their 1980 levels by the end of the century, having achieved a reduction of some 24% in SO₂ during the decade before 1980.

International Trade

12. As a major trading country, dependent upon raw materials from overseas, the United Kingdom recognises that its own interests demand that renewable natural resources should indeed be renewed. Thus it participates readily and vigorously in co-operative international measures to control and monitor trade in resources which are, or are likely to become, at risk. At the same time it recognises that for many of the economically under-developed countries, exploitation of their living and non-living natural resources offers the only practical way in which they can relieve poverty and increase the health and standard of living of their populations. It is all too easy for more prosperous parts of the world to strike attitudes about conservation and to seek to impose restrictions on trade without considering the needs and wishes of indigenous populations. The United Kingdom recognises the pressures on those

countries and endeavours to work with them in developing and using their living resources in ways which create prosperity for them without causing irreversible damage to the resources themselves. A good example is the agreement for controlling the international ivory trade through quotas reached at the last CITES conference in 1985 and based on a resolution prepared by the UK.

13. In particular the United Kingdom insists that restrictions should be imposed only when there are sound conservation arguments that unrestricted trade may be harmful. It is for this reason that the United Kingdom is a strong and active participant in CITES. In discussions with the other parties, the United Kingdom continually stresses the importance not only of basing decisions on the available scientific data but also of ensuring that such decisions are practicable and enforceable. It supports the concepts of "farming" or "ranching" wild species where this is the best way of obtaining a protein crop from a particular area and also provides for their conservation. For its part, the United Kingdom, in association with its partners in the European Community, operates tight controls to ensure that it complies strictly with CITES decisions. We have also taken action to publicise the controls through leaflets and posters. [Picture, covers of Endangered Animals and Endangered Plants leaflets].

14. In addition to participation in CITES, the United Kingdom supports other international fora which seek to ensure that living resources, whether species or complete ecosystems, are not brought to extinction. The UK actively supports the conservation of cetaceans through its membership of the International Whaling Commission and has for several years backed the call in the IWC for a cessation of commercial whaling.

15. The destruction of some 11 million hectares of tropical rain forest each year is of deep concern to conservationists in Britain as in other countries. The Government recognizes the many reasons for this conversion of forest to other uses, and the right of the countries concerned to manage their own resources. It is, however, supporting the efforts of the industry through the International Tropical Timber Organisation to pursue goals of sustainable use. It welcomes the efforts of the UN Development Programme, the World Bank and the World Resource Institute to promote a new plan for the management of the world tropical forest resource.

16. The UK supported the initiatives of the OECD Environment Committee to introduce guidelines on the notification of exports of banned or severely restricted chemicals. These guidelines are also an important contribution to a much wider exercise in international guidelines being developed by UNEP. The UK is ready to implement the interim notification procedures which are a major part of these guidelines and has already provided the International Register of Potential Toxic Chemicals with our list of banned or severely restricted chemicals. In 1987 the UK will host a meeting at which, it is hoped, final agreement will be reached on the UNEP guidelines.

Aid to Developing Countries

17. This is perhaps the most significant area where United Kingdom policy can make a contribution to conservation in international terms. It is also the most difficult. To a very large extent the developing world contains the last great reservoirs of systems which have not been shaped by man. Increasingly the world is recognising the full value of these systems, not just for the beauty and richness of their wildlife, or for their potential as resources for human use, but as a fundamental element in the climatic and ecological cycles of the entire globe. The extent to which these systems

are coming under pressure can be seen from the rapid encroachment of desertification, sometimes as a consequence of large-scale deforestation in crucial watershed areas.

18. But this growing, and in human terms recent, understanding is coupled with an awareness of the needs and aspirations of the populations of those areas. They too seek the freedom from want already achieved by the richer countries. Hunger, lack of shelter and ill-health have to be countered, and this can only be done if those populations are enabled to develop and use their indigenous resources.

19. United Kingdom policy on overseas aid is to raise social and economic living standards of people in aid recipient countries in an environmentally sound way. The United Kingdom recognises that development activities, by definition, affect the physical and natural environment in which they take place. In part, of course, that is the point of development: to use resources more intensively in different combinations or places so that people may have opportunities for a better life. However since the United Nations Conference on the Human Environment in 1972, the United Kingdom has been committed to avoiding serious and irreversible damage to the environment in the promotion of economic and social developments.

20. The United Kingdom's Overseas Development Administration applies its knowledge of - and concern for - environmental effects of aid activities when appraising projects for aid finance. Standing instructions, guidance and checklists have been issued to all staff of the Overseas Development Administration on how to take account of the environmental effects of development activities. These effects have to be considered explicitly before the decision is taken to allocate funds to a project. As well as ensuring projects are environmentally sound, the Overseas Development Administration finances many activities in applied research and supports bilateral aid projects to reverse ecological and environmental decline, both in Africa and Asia, particularly

through reforestation programmes. It is also involved in discussions to ensure that the aid donors who are members of the Organisation for Economic Cooperation and Development's Development Assistance Committee adopt common standards on undertaking environmentally sound activities overseas. [Picture: Karnataka Social and Community Forest Project].

Conclusion

21. The UK will continue to promote global development without destruction through its contribution described above. But there are other opportunities to which we attach importance. Both the UK Government and its non-Governmental organisations are active in international science and education. The dissemination of knowledge and the provision of practical training in the sustainable management of natural resources are crucial to the future of many developing countries. Many UK research institutions and universities have links with their counterparts abroad, especially in Africa and south-east Asia and such direct, often informal relationships bringing exchanges of people and joint studies at the practical level can do more to promote the future of the world environment than higher-sounding international agreements. We shall continue to support them.

PROSPECTS FOR THE FUTURE

1. This report makes no secret of the fact that we have encountered serious environmental problems - and made mistakes - in the United Kingdom. It also shows that we have made progress in dealing with them. The philosophy of the World Conservation Strategy has been applied in the UK. It will continue to guide us in the future. We are in no doubt that we will continue to have environmental problems to face. We know about some of them - like the need to restore derelict land and clean up rivers, and to maintain the vigour of rural communities. But we also know that we must expect the unexpected. To cope with it we need flexible, effective, institutions and a basis of scientific understanding of the environmental systems with which we are dealing.

Evolution

2. The UK's approach to environmental policy development has been one of continuous evolution based on careful consideration of the factors involved in any issue; a willingness to learn from past mistakes; analysis of what is possible and practicable; the desire for the minimum of controls; and the widest possible participation of interests. This has generally led to the development of policies commanding fairly widespread support which are capable of adaptation as new circumstances arise. But consensus is itself changeable and conclusions that are broadly agreed today may well be challenged tomorrow: the best way forward is to maintain a lively public debate, based on good published information about the state of the environment and about the options open to the country. The UK is seeking to develop its monitoring systems and modernise its information base, and to make the results available to all. The

Government attaches great importance also to publications like this one which provide a basis for discussion of the best way forward.

The Way Ahead

3. Modern Britain has moved on from the period when all our efforts were taken up with remedying the acute problems from the past. We are now moving into a period when we seek to identify potential problems in advance and prevent their becoming damaging and costly. This again demands an advanced "early warning" system, and a capacity to evaluate the probability of particular environmental events, size up their likely scale, and appraise the nature and cost of the damage they may cause. We are moving into a period when risk evaluation will become more crucial. Moreover, such evaluation must do more than set down statistics. It has to take account of people's desires - and fears. The environment is managed for people, and judgements about quality of life are in considerable part subjective. We have to learn to take account of value judgement while at the same time calming irrational worries through the proper dissemination of information and the proper conduct of dialogue.

4. Environmental concerns range widely. They stand at the base of policies for the use of land, air and water, and for this reason cut across many of the more traditional divisions of Government. The environment determines agricultural and forest production. It is the source of minerals and water. It constrains communications. It places costs on transport. It has direct and indirect influence on energy and industrial costs. The UK supports the view expressed by the Environment Ministers of the Economic Summit Countries that the environmental dimension has to be taken into account when many other national economic and industrial policies are developed. It is not easy to do this in a simple fashion which does not hamper the

smooth running of the Government machine, but we see it as an essential challenge for the future.

The Wider World

5. There is no doubt that the international dimension of environmental policy will go on extending. This is good, because we all share and depend on the natural systems of our planet and their care demands our concerted effort. Moreover, we have much to learn from one another's experiences. Shared science and shared data can save money and effort. The world information base being built up by UNEP will help nations around the world to understand our common problems better. Analyses by international organisations - including non-governmental ones - can help reconcile national perceptions which may diverge more through history than through logic. Common solutions must depend on common understanding and we see here a major dimension for future growth.

6. The international conventions and other measures we have are important. Their number will grow. But the UK stands strongly behind the principle that such measures are of limited worth unless they are seen to lead to effective action - and this means proper enforcement, tested by monitoring. We support efforts to make international actions work in solving the real problems of the world - especially in the developing countries, where trade and aid have a large part to play.

Expectation

7. Facing up to the many challenges ahead will not be easy. For one thing, we still have a great deal to learn about the precise nature of our environment and how it is

changing. For another, expectations about living standards keep on rising. This means the creation of wealth by means of many kinds of industrial and commercial enterprise. The wealth-creators need a policy framework within which they can flourish. Finding the right blend between development and conservation constitutes the challenging central theme of the WCS. The UK believes it has the basic machinery in place to rise to this challenge, but on a wider canvas this will happen only if such machinery is put in place and operated in all nations.

8. Many issues must be confronted here in the UK. We are currently concerned with developing means for the satisfactory disposal of nuclear waste. We face pressures because of the movement of pollution originating in the UK across other national boundaries. We must ensure that the disposal of hazardous (non-nuclear) wastes is done as safely as is practicable, that we guard against damaging or even disastrous consequences of the imprudent or negligent application of biotechnology and that impending changes in land use and agricultural practices do not have adverse effects on the potential of the countryside, not only for agricultural production but also in terms of habitat and landscape and the enjoyment of the British people and those who visit our islands.

9. The resolution of these and other issues will take place in a climate of debate in which increasingly strident voices may intrude. This will not make the resolution easier. The continued evolution of policy based on sound science, informed discussion, foresight, and balance between development and conservation provides the best hope of achieving the practical solutions we need, in time, and with public opinion at home and abroad behind them. [Picture]