# CONNECTING THE PIECES: SCOTLAND'S INTEGRATED APPROACH TO THE NATURAL HERITAGE –

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#### Introduction

Scotland's natural heritage is immensely diverse, despite its size. This arises from the country's complex earth history, its location between continental and maritime influences, and its altitudinal range. Not only is the proper stewardship of this heritage important in its own right, but it provides opportunities for increasing economic wealth and improving social well-being. Historically, however, as in other parts of the UK, the approach to the protection and management of Scotland's natural heritage has been fragmented: species and habitats have been dealt with by a nature conservation agency, while landscape, amenity and recreation have been the responsibility of a separate countryside agency. Other parts of the public sector have been poorly connected with natural heritage management and often their activities have resulted in its progressive deterioration.

A number of changes occurred in the early 1990s which presented opportunities for a more integrated approach and achieving a wider range of benefits. The institutional structure was remodelled: Scottish Natural Heritage (SNH) was established in 1992 with an integrated remit for the conservation and enhancement of the natural heritage as a whole and with a responsibility to promote its sustainable use. The agenda from the UNCED Earth Summit in Rio in 1992 encouraged more integrated approaches by placing the pursuit of economic and social needs and aspirations alongside the stewardship of natural resources. There was growing interest in experience in many other parts of the world where the delivery of policy and action within biogeographic regions or zones, rather than administrative units, had proved valuable (Miller, 1996). And, finally, there was a growing commitment to including the various local and national communities of interest in visioning, planning and action for the conservation, enhancement and sustainable use of the natural heritage.

It was for all of these reasons that SNH decided, in the mid-1990s, to develop its Natural Heritage Zonal Programme ("the Zonal Programme"). This chapter sets out the thinking behind the approach, explains the methodology used to define the natural sub-divisions of Scotland, and describes the main elements of the Zonal Programme. The main part of the text focuses on an assessment of the actual and expected benefits of the Zonal Programme.

#### The overall philosophy

For far too long there have been fragmented and sectoral approaches to dealing with rural countryside and environmental issues in Britain. When philosophies and cultures of segmentation and separation are deeply entrenched, they become barriers to coherence and integration. This was reflected in, and was in turn reinforced by, the way in which natural heritage business was organised in the UK. Since the development of statutory environmental organisations in Britain in the late 1940's, there have been over 50 years of fragmented approaches to dealing with the natural environment. It has been dealt with from either a nature conservation perspective,

focusing particularly on species and habitats, or a "countryside" perspective, embracing landscape, amenity and recreation (Smout, 2001).

There are profound philosophical and practical reasons for integrating the two strands of the natural heritage business - countryside and nature conservation - into one organisation, as practised in Scotland through Scottish Natural Heritage (SNH) and in Wales through the Countryside Council for Wales (Crofts 1994, Crofts 2000, Crofts 2001). First, there is the argument that biological and landscape diversity are so intimately inter-related that it makes no sense to separate them. Landscape character depends in part on its physical (i.e. geological and geomorphological) elements), and in part on its vegetation cover: landscape diversity is therefore partly a function of biological diversity. Second, the natural heritage of plants and animals, geological and geomorphological features, natural beauty and amenity (as it is defined in the Natural Heritage (Scotland) Act 1991) is highly dynamic. Changes in one element, e.g. land use, can have profound effects on other elements, e.g. wildlife changes affect amenity; changes made now will have an impact over many years into the future. Thirdly, much of nature conservation, and to a lesser extent of the landscape protection, is based around a strategy protected areas. Yet there is much evidence within Scotland, and elsewhere, to show that achieving protection of critical features through protected areas alone, whilst ignoring what is occurring outside their boundaries, makes no sense. Pollution effects and migration of species can make protected area boundaries meaningless: moreover, many existing protected areas are too small to serve the purpose for which they were established (Runte, 1997). Next, the conservation of diversity in Britain is primarily undertaken on private land. To be successful, therefore, the legitimate interests and roles of owners and managers of land need to be recognised. However, the finer points of difference between a nature conservation policy and a landscape protection policy will often be lost on the landowners and occupiers: indeed many would regard having to deal with different institutions, policies etc as irritating. And finally - and of central relevance to the topic explored in this chapter - administrative boundaries rarely recognise the diversity of landscape or biological features; moreover such man-made borders are subject to adjustment. In Britain, for example, some administrative counties that ceased to exist as long ago as 1974 are still used as the basic units for identifying Sites of Special Scientific Interest (SSSIs), the foundation of site-based nature protection in Britain. With advances in the collection and analysis of spatial data, we are better placed to define natural units that make sense in terms of both biological and landscape diversity.

As a new organisation forged out of these two previously separate streams, SNH was determined to bring together its nature conservation and countryside functions in a coherent and integrated manner. It developed a means of addressing this challenges in the mid-1990s by defining the Natural Heritage Zones of Scotland. On the basis of the above analysis, the Zonal Programme had the following initial principles:

- (1) a new approach, founded on the interaction between activities within and outside protected areas and sites;
- (2) an integrated approach to wildlife, landform and landscape protection and management;
- (3) a rigorous but practical sub-division of the country to recognise its diversity;
- (4) active engagement of the communities of interest in the management of protected areas and the wider countryside; and

(5) integration of environmental, economic and land-use policies and schemes of assistance.

At the outset of its work on the Zonal Programme, SNH did not have entirely clear objectives. Attention was focused on replacing administrative units as search areas for SSSIs. Work elsewhere of a similar nature was not appraised until later, and a major exercise of Landscape Character Assessment for the whole of Scotland was still at an early stage. However, by the time of writing this chapter, SNH has taken this work far beyond its original limited intentions. It has linked it to the emerging requirements of the organisation and the changing needs of the natural heritage. It has learnt the lessons from similar activities undertaken elsewhere in the UK and overseas (see Chapters x, x, x and Crofts et al, 2000). And it has tried to reflect its experience in engaging with partner organisations in the post-Rio era, bringing together social, economic and environmental concerns (see Crofts, 2001) (Figure 1).

# **Basic Structure of Approach**

SNH believes that conservation, resource use and development must be integrated if natural functions, local character, and species and habitat patterns are to be maintained. It defines the Zonal Programme as "a visionary, practical and partnership approach for meeting, in an integrated way, the needs of all of Scotland's diverse terrestrial natural heritage". Thus it embraces the delivery of SNH's statutory responsibilities, as well as its role in meeting international obligations, (e.g. those under the Convention on Biological Diversity and the EU Natura 2000 programme), in achieving national targets, including those set by the Biodiversity Action Plan, and supporting other policy frameworks, such as Agenda 21.

The approach to the Zonal Programme involves taking:

- a longer term vision, focusing on what can be achieved in 25 years time;
- an analytical stance in describing, nationally and locally, the diversity of the resource and the drivers of change; and
- an action-orientated approach by identifying objectives and specific actions for SNH and its partners.

As a result, Scotland has been classified into a series of geographic units within which there is a commonality of natural heritage characteristics and which, taken together, reflect the diversity of Scotland's natural heritage.

The Zonal Programme is primarily related to the terrestrial natural heritage. An attempt was made to apply a Zonal Approach to the marine environment (Kiemer et al, 1998) but there was insufficient material to allow zones to be identified in any meaningful way. There was also no coherence between the boundaries of terrestrial and marine zones. Coastal and marine issues are, however, dealt with in all relevant Local Prospectuses and in the National Prospectus on the Coast and Sea (see below).

A brief account of the methodology is needed to explain how the various elements of the natural heritage were brought together (see Figure 2). The starting point was to find indicators which were sensitive to the diversity of the natural bio-geographic regions of Scotland. Work commissioned from the Institute of Terrestrial Ecology revealed that a particular series of plants and animals were most effective in providing a logical sub-division of Scotland (Carey et al 1994: Carey et al, 1995). Data for six taxonomic groups formed the basis of the first level of classification: breeding birds, diurnal insects, non-marine molluscs, liverworts, mosses, and vascular plants. In addition, 16 climatic variables were added. The outcome of this first stage analysis was a 10-zone map of Scotland. (A schematic version (Figure 3) shows that the diversity of Scotland's natural heritage is determined by altitudinal and oceanic/ continental gradients). This was then cross-checked in two ways. An extensive literature review was commissioned on the classification of Scotland into biogeographic regions (Mather and Gunson, 1995); this showed that there was a great deal of consistency between the more historic qualitative work and the later quantitative work. In a separate exercise, other relevant bio-geographic data were added (i.e. on soils and topography).

The next stage was to ensure that non-biogeographical elements of the natural heritage, i.e. landscape character and land use, were incorporated in the classification. This was vital if the spatial units were to reflect the whole of SNH's remit, which covers landscape as well as biodiversity. The detailed Landscape Character Assessment of Scotland was still at an early stage, although the methodology had been established jointly with the Countryside Commission for England (CC/SNH, 1999). The expertise of SNH's own landscape advisers was used to distil the patterns into Landscape Character Types and then to superimpose these onto the biogeographic data (Thin, 1999).

A composite picture of the natural heritage character of Scotland was built up in a series of layers, including: plant and animal distributions; climate, soils and topographical factors; landscape character and land use. The spatially-referenced data were aggregated at different levels in order to identify the level at which clear patterns emerged. It was never the intention to allow the data alone to determine the number of natural heritage sub-divisions of Scotland, but to confirm the choice which was to be made by informed judgement. If there were too many sub-divisions, the result would be fragmented, and major units which have wide public recognition would be lost; if there were too few zones, identity, diversity and sense of place would not be revealed.

Examination of the composite data sets led to the judgement that 10-12 zones would be too few to reflect adequately the diversity of Scotland's natural heritage but that more than two dozen would result in too great a fragmentation. After detailed discussions with colleagues and others knowledgeable about Scotland's natural heritage, 21 zones were determined (Figure 4).

The next step was to develop documentation for the Zonal Programme. It was decided to focus attention on three sets of documents: National Assessments, National Prospectuses and Local Prospectuses.

# National Assessments

These are the foundation documents. They comprise the best available information and interpretation about key aspects of the natural heritage and its use: recreation and access, landscape, physical characteristics, earth heritage, species and habitats and freshwater. The data are presented in tabular and map form and made available through the SNH website (*www.snh.org.uk*). The information gathered is the most comprehensive and up-to-date available and represents a baseline from which to measure future change.

### National Prospectuses

Many of the human activities, which drive change within each of the 21 Zones, are the result of national, European or global policies. Also, many Zones share common themes. Hence a series of National Prospectuses has been prepared to address nationally relevant issues. The topics covered were chosen as a result of discussion with key constituencies. Six settings are involved: farmland, forest and woodland, freshwater, coast and sea, mountain and moorland, and settlements. Each document comprises six parts:

- summary of the main environmental, social and economic features and the key issues for the natural heritage;
- a description of the natural heritage of the setting at present;
- an assessment of the key influences on the natural heritage both in the recent past and in the foreseeable future;
- a vision of the natural heritage written in the present tense of 2025 based on better stewardship of national resources;
- objectives, priorities and actions required to work towards the vision; and
- identification of national stakeholders to help in pursuing the actions identified against each objective.

These documents have been published and are also available on the SNH website.

# Local Prospectus

For each of the 21 Zones, a Local Prospectus has been drawn up. As with the National Prospectuses, each Local Prospectus contains six parts

- summary of the main environmental, social and economic features and key issues for the natural heritage;
- description of the natural heritage at present;
- an assessment of the key influences on the natural heritage both in the recent past and the foreseeable future;
- a vision for the natural heritage written in the present sense for 2025 based on better stewardship of natural resources;
- objectives, priorities and actions required to work towards the vision; and
- identification of key local and national stakeholders to help in pursuing actions identified against each objective.

These Local Prospectuses have also been published and are available on the SNH website.

# Overview

In addition to these three types of document, an Overview has been prepared. This describes: the diversity of Scotland's natural heritage and why it is important; how

and why it is changing; why a new approach to managing and maintaining the natural heritage has been developed; how different mechanisms and instruments impact on the natural heritage; and the changes which SNH would like to see achieved. The Overview is titled "The diversity of Scotland's natural heritage – working together for its future" to emphasise the partnership approach required to deliver the whole programme. It too has been published and is available on the SNH website.

### What are the Benefits: Actual and Expected?

The Zonal Programme is now subject to discussion with key partners. After this, the documentation will be revised, clear action plans drawn up and implementation will follow. Since the programme is still at a formative phase, one must be cautious about drawing conclusions. Nonetheless, it is possible to assess the impact of the Zonal Programme under eight headings. These are: benefits for the natural heritage, improving collaboration with key stakeholders, stimulating policy integration, delivering an integrated remit, providing a new basis for strategies, providing a new basis for resourcing actions, defining targeted action, and achieving improved corporate culture.

#### (1) Achieving tangible benefits for the natural heritage

It is of course far too early to identify what the benefits of the Zonal Programme to the natural itself have been. However, by defining visions of the natural heritage in 2025 in 21 local variants and six national variants, SNH has set out its own aspirations. Box 1, which contains quotations from one Local Prospectus and one National Prospectus, indicates the kind of long-term targets which have been drawn up..

Vision for Zone 5: The Peatlands of Caithness and Sunderland

"There is a sense of optimism in Caithness and Sunderland given that the economic decline in the area has been halted. The local economy has been restructured to ensure co-ordinated, sustainable development which serves the needs of the people and the environment. Partnership projects continue to show positive results ... and greatly influence integrated development and nature conservation policies.

Diverse low-intensity farming and sensitive management are supported by agriculture and conservation incentive schemes ... the continuation of traditional land management, such as grazing and muir burn, helps to maintain diverse and distinctive managed landscapes, reinforcing the local character and identity of the area ...

Some forest plantations on deep peat, which have reached the end of their first rotation are being clear-felled to initiate the restoration of peatland habitats ... reductions in grazing and improved native woodland management, large areas of intact blanket mire are developing natural edges which merge into regenerating woodland and scrub on steeper slopes and dryer soils ...

The characteristic wild landscapes of the area are protected through development control and, where possible, restored by supporting activities which enhance those qualities by, for example, the removal of obtrusive structures and the promotion of vernacular buildings of local stone ...

Affordable non-fossil fuel alternatives are now utilised in the area minimising the release of greenhouse gases. Tourism and other leisure activities have diversified and increased, further enhancing the economic value of the local environment.

The rich natural heritage of crofting land and coastal fringes is maintained through diverse, low-intensity management supported by UK and European agriculture and environment incentive schemes.

The peatlands are designated as a World Heritage Site, helping to stimulate a co-ordinated approach to sustainable development and ensuring that all natural and cultural features are maintained and enhanced.

Through increased education, interpretation and an awareness of the economic value of the local environment, the many habitats and species of local, national and international value are seen in a positive light by all in the area. The conservation of these features is consequently a priority for everybody. "

#### Vision for Mountains and Moorlands

"Use and management of the uplands operates according to the principles of sustainability, based on recognition of upland landscapes and wildlife as the greatest natural assets of many rural areas. Instead of trying to overcome the inherent disadvantages of remoteness and low agricultural productivity, the approach encourages systems of land use which sustain the natural heritage for the range of social and economic benefits which it provides ... Economic support for hill farming is geared towards conservation objectives, encouraging diverse, less intensive production which is in balance with the naturally low fertility of the uplands, and other management which benefits the natural heritage ... deer populations are maintained in balance with their habitat by adequate culling and by avoiding supplementary feeding ... grouse moor management also achieves high standards of environmental stewardship. Open grouse moors are, however, integrated with expanding areas of regenerating native woodland scrub, which in turn provide more diverse sporting opportunities ... the extent of native woodland is increasing throughout the uplands and natural tree-line scrub is developing in some areas ... recreation and tourism provides substantial income for upland areas, which is largely underpinned by positive management of the natural heritage. A wide range of eco-tourism initiatives reinforces the tourism industry .... upland landscapes and wildlife are protected by careful control of the extent, location and design of new developments. Wind farms and hydro schemes are carefully designed, sited and managed to avoid adverse affects on wild upland landscape, freshwater eco-systems or highly valued species such as golden eagle ... many of the most spectacular or remote areas are safe-guarded as wild land, building on the quality which are greatest economic value in the most remote and agriculturally unproductive parts of Scotland".

From these vision statements, suitably amended after the stakeholder consultation exercises, SNH can draw up more specific action plans and identify milestones in the progress towards achieving a shared vision. Monitoring and evaluation of the programme, and the modification of objectives and actions, will be an intrinsic part of the process.

#### (2) Improving collaboration with key stakeholders

SNH operates largely by influence and persuasion. It is not a regulatory agency and has no statutory powers to stop activities. SNH cannot fulfil its statutory responsibilities - "to secure the conservation and enhancement of and foster the understanding and facilitate the enjoyment of the natural heritage of Scotland and have regard to the desirability of securing that anything done, whether by SNH or any other person, in relation to the natural heritage of Scotland is undertaken in a manner which is sustainable" - in any other way than through partnership.

So working with others has always been one of SNH's Operating Principles. It sets the tone and culture for its work. The key Operating Principle is: "we work in partnership by co-operation, negotiation and consensus, where possible, with all relevant interests in Scotland: public, private and voluntary organisations and individuals" (SNH, 2000a). Moreover, a specific objective of SNH's Management Strategy is "improving collaboration with key stakeholders". The articulation of this objective was informed by a formal analysis of stakeholders as part of its management strategy work assisted by Colin Eden and Fran Ackerman of Strathclyde University (Eden and Ackerman, 1998). Each stakeholder was identified in terms of its relative power and interest in SNH's activities and the natural heritage. Mapping these on a grid provided a perception of the likely stance of the stakeholders (negative or positive) and the relative priority, in general terms, which should be given to working with each of them. Those stakeholders whose power and interest were greatest were identified as the most critical.

As part of the stakeholder interaction process, there has been a programme of introductory presentations to key national stakeholders. This was essential preparation for more focused discussion on the contributions which key stakeholders could make. Reactions have perhaps been predictable. On the positive side, there has been support for SNH clarifying its own position, for using spatial units which make sense, and for wishing to be both strategic and action-orientated in its endeavours with stakeholders. On the negative side, concern has been expressed that SNH was spreading beyond its remit, that the Zones made no sense in the real world, and that its proposals were far too ambitious. The negotiating process will seek to remove or diminish the more negative messages and build on the positive support.

SNH has enjoyed national level engagement with key stakeholders for many years, through formal liaison arrangements, and in some cases written Concordats or Memoranda of Understanding. The establishment of the Scottish Parliament with its legislative powers for the natural heritage and other relevant issues has stimulated more debate and policy development. The Scottish Executive has initiated dialogue on

policy development, legislation and action, and aims to reallocate resources in areas affecting the natural heritage. The National Prospectuses therefore provide SNH with an informed basis for formal engagement not only with representative bodies in environmental and other sectors of public policy, but also with the Scottish Parliament and the Scottish Executive.

At the local level, engagement with stakeholders has, perhaps inevitably, been variable. Success depends on the priorities of other bodies and their culture of cooperation and partnership, as well as on SNH's own priorities. However, in the last two to three years, major strategic roles have been given to local councils. Thus local councils are now involved in the Local Agenda 21 process, and in preparing and implementing sustainable development plans, Local Biodiversity Action Plans and Community Plans. All these involve input from local communities and other interests, and affect the delivery the local council's functions. SNH has sought to influence the content of these plans, and the councils' developing thinking has in turn shaped SNH's Local Prospectuses. This is not a seamless approach but an iterative process.

Officials within partner organisations, particularly key advisory staff, have welcomed the information provided by SNH on the natural heritage and its use. The information available to partner organisations is objective, consolidated, easily manipulated and therefore suitable for their use. It has enabled them to develop their own policies with confidence.

The engagement with stakeholders nationally and locally is still at an early stage. However, clear synergies are emerging. Partner organisations are showing themselves ready to take a more strategic and analytical view of their role and work in respect of the natural heritage, and to take this forward in partnership with SNH.

# (3) Stimulating Integrated policies for the natural heritage

The past ten years have been a period of strategic policy development locally, nationally, regionally and globally, stimulated largely by outputs from the Rio Earth Summit of 1992, particularly the various approaches to sustainable development and biological diversity. SNH was established, and its statutory terms of reference and government policy statement determined, just before Rio. However, as noted above, SNH's founding legislation recognised its role in promoting sustainability, whilst the development of UK and local strategies and action plans in response to the decisions arrived at in Rio provided a further stimulus to SNH activity in this area. It thus became essential that SNH should set out its own approach to sustainable development (SNH, 1993) and develop the implications of this for key sectors such as agriculture and forestry, across Scotland and in different parts of the country. The timing of development work on sustainability was critical: moving too early would have been a criticised externally: moving too late would have missed a unique opportunity.

SNH's Corporate Strategy (see below), took as its framework the three elements of sustainable development: environmental, economic and social. This was to demonstrate, internally and externally, that SNH, and the natural heritage, had important contributions to make to economic prosperity and social well-being. Whilst some organisations are concerned with the social or economic aspects only, (e.g.

housing or enterprise agencies), the integration of policy and action required to achieve sustainable development cannot be achieved unless there is recognition of the linkages. An obvious example is that access to the countryside near to where people live has social inclusion and health benefits, and can bring economic benefits to the locality. Similarly the footprint of economic activity on natural resources, landscape and wildlife, cannot be ignored. Therefore all National and Local Prospectuses formulate views and aspirations for social and economic benefits in relation to each of six national settings and to the 21 Zones.

# (4) Ensuring integrated delivery of the remit

SNH was given a duty by government and Parliament (SDD 1990) to *integrate* the various functions for wildlife and landscape protection, and for environmental education and enjoyment of the natural heritage. SNH's responsibilities included access, landscape character, and the delivery of obligations under European Union nature conservation Directives, as well as its sustainable development duties. The Zonal Programme was an ideal vehicle with which to pursue the challenge of integrating this wide remit. It enabled SNH to achieve a more coherent and coordinated approach to scientific activity, policy development, advocacy - indeed to to the delivery of *all* its functions.

Three examples illustrate how the Zonal Programme can be used to overcome the tendency to address issues in a compartmentalised fashion:

- 1. It would be relatively easy, for example, for SNH to pursue its remit to improve access to the countryside without regard for other considerations. However, a comprehensive approach to access, such as is provided though the Zonal Programme, must take into account the potential impact on sensitive habitats, species and landforms, and the need to influence behaviour of visitors to the countryside. Hence a conservation sensitivity test on the organisation's access policy and action was an important element in integrating the remit.
- 2. In Scotland, as in many other parts of the world, soft coasts are undergoing net retreat. This creates problems for coastal settlements, affects economic activities, such as golf, and directly impacts on coastal habitats. The traditional response has been that of hard engineering. Such an approach is often a short-term palliative which ignores the reality of coastal dynamics. Hence it may create long-term problems along the coast, sometimes many miles away. Moreover, the removal of coastal vegetation, and continuation of intensive grazing, can accelerate the natural instability within the coastal system. The National Prospectus on the Coast and Sea analyses these issues and proposes solutions. The objectives are to manage the coastline in sympathy with natural processes through, for example, the use of soft engineering solutions, removal or abandonment of hard sea defences, and changing agriculture management practice at the coast.
- 3. Protected areas work tends to concentrate on those wildlife features which merit special measures for their protection, e.g. safeguarding spawning beds for Atlantic salmon or maintaining hydrological systems for mires. However, it has been clear for many years that activities beyond the site boundaries affect the status of habitats and/or of the individual species within the protected areas. For the Zonal

Programme to be effective, therefore, it is essential that policies and action for land and water management outside protected areas, which influence the status of wildlife within them, are included in the relevant National and Local Prospectuses.

#### (5) Providing a new basis for Strategic Documents

The Zonal Programme also provides a new basis for SNH's corporate strategic planning. The Government requires SNH to adopt a three year Corporate Plan and a one year Operational Plan. These documents are however relatively short-term and resource constrained, and SNH wishes to look ahead over a longer time horizon. Many factors could affect its work over a longer time scale, others in the sector operate on longer timescales, and the timescales for achieving significant benefits for the natural heritage tend to be measurable in decades rather than years. Moreover, a policy statement in the 'Partnership for Government' document from the new coalition Government, elected in Scotland in 1999, emphasised the strategic importance of social sustainability and environmental sustainability. To take advantage of this opportunity, and to address the need for a longer term strategy, SNH has prepared a "A Natural Perspective - Corporate Strategy for Scottish Natural Heritage for the next 10-years" (SNH, 2000b) (Figure 5). This new SNH Corporate Strategy, which was developed in late 1999 and completed in mid-2000, and is based on the three elements of sustainability environmental, social and economic: The three themes and accompanying goals are:

*Caring for the natural world:* for the whole of Scotland's natural heritage to be cared for more effectively;

*Enriching peoples lives:* for the link between the natural heritage and personal well-being to be widely recognised and acted upon; and

*Promoting Sustainable Use*: for renewable resources to be harvested within their carrying capacity, for management operations to provide multiple benefits, and for natural resources to be used efficiently.

The section in the Corporate Strategy on 'Delivering the Strategy' identifies the Zonal Programme, along with the Management Strategy, as the two main strategic delivery programmes of SNH. The National Prospectuses and Local Prospectuses have all been checked to ensure that these are consistent with the overall goals and priorities of the Corporate Strategy (Figure 6). There is scope for evolving the Corporate Strategy, given that its time horizon is only 10-years, and therefore considerably shorter than the vision elements of the Prospectuses (around 25 years).

# (6) Targeting Resources for actions nationally and locally

Like many organisations within the public sector, SNH finds it difficult to accommodate radical shifts in expenditure programmes without substantial additional resources. For instance, the balance of expenditure between the inherited components of its pre-merger remit of wildlife conservation on the one hand and landscape conservation, recreation and access on the other, remained largely unchanged for some time, as did the balance of expenditure across the country. Major external pulses, such as the quickening pace of implementation of European Union Directives and the implementation of SNH's Access Action Programme, helped to bring about changes in the distribution of resources between programmes and around Scotland. However, it was not a systematic approach. The Zonal Programme allows a more objective assessment of the needs of the natural heritage and therefore the application of resources by SNH and others. Having set a baseline of information and visions for the future, the National Assessments, and the National and Local Prospectuses, will provide the means to assess progress and to identify remedial actions and expenditure needs, including financial input from partner organisations.

The Zonal Programme, therefore, needs to be developed to help identify resource requirements and to shape the allocation of resources. Potentially it could help SNH develop a more objective basis for assessing such needs, provide better information for decisions on relative needs and improve the objectivity of resource allocation to individual programmes, to the different zones and to different operational units. In developing their annual budget proposals, SNH's Area teams are encouraged to use the Local Prospectuses to help them to assess the relative expenditure needs of different programmes.

### (7) Defining targeted actions

The Local and National Prospectuses focus on action. This helps to reshape current work towards the attainment of theintegrated, long term goals and visions that have been set for SNH and for the natural heritage.

Defining actions in this way enables SNH to move from a largely reactive approach to a more proactive one. Of course, SNH alone does not determine what actions are undertaken affecting the natural heritage and the timescales for them. The pace of policy development and delivery has increased since the establishment of the Scottish Parliament, and more attention is being given to the implementation of the UK Government's obligations under European Union's Birds and Habitats Directives. It has been found helpful to include the required response to these policy developments as actions within the draft prospectuses, which thus help to focus discussion, negotiation and ultimately agreement with key partners. In drafting the required action, a balance has to be struck between being overly prescriptive and too generalised. The way that actions in the Zonal Programme are described will depend on the circumstances and on the stakeholders involved.

A good example is the series of actions which are set out in most of the Local Prospectuses on renewable energy, now a major thrust of public policy. SNH must define the locations and sites which it considers suitable and those which it does not. It must seek to persuade the planning authorities to take strategic approaches and adhere to their policies in making decisions on individual proposals. It needs to persuade the Government in Scotland of the need for strategic locational guidance, and the UK Government for a balanced approach to the pricing of different technologies, bearing in mind their environmental impacts. And it must work with developers to identify locations that are both operationally credible and environmentally acceptable. The Local Prospectuses can assist in this challenging work.

# (8) Improving internal collaboration

When the Zonal Programme was being developed, SNH embarked on a fundamental review of its operational effectiveness and corporate culture. An Organisational Development Programme was established with the explicit aim of "ensuring that SNH is a credible, effective and efficient organisation, delivering its natural heritage remit and living within our means". Seven specific objectives were identified: integrating the remit, effective working with key stakeholders, improved internal collaboration, developing efficient and effective management, providing effective leadership, developing staff, and reducing excessive workloads.

It should by now be apparent that the Zonal Programme has had a fundamental part in integrating the remit and working with stakeholders. But it also helped to achieve a more positive and collaborative corporate culture within SNH. A radical re-shaping of the organisational structure was carried through: there was increased delegation locally to 11 Area teams, a corporate Advisory Services of natural heritage specialists was set up, and a new policy facilitating group established :- Natural Strategy.

The Zonal Programme gave leading roles to each of the main elements of SNH's staff structure (Areas, National Strategy and Advisory Services): Areas in drawing up of Local Prospectuses, National Strategy in drawing up National Prospectuses, and Advisory Services in drawing up National Assessments. The allocation of responsibilities in this way was not undertaken as three separate exercises but as a collaborative programme. For the first time, local staff had an opportunity to specify their needs for policy development and for information, and to have a formal input into the policy development process. Thus Area staff were able to develop policy objectives and needs for the uplands. For example, they identified the importance of land valuation for sporting purposes, and the objectives pursued by sporting estate owners; these are matters that had not previously been considered adequately in the reform of the CAP. The outcome was a re-balancing of priorities, which took better account of local needs and circumstances.

Lead staff have been nominated as "Zonal Co-ordinators" for each National Assessment, National Prospectus and Local Prospectus, and a member of the corporate zonal team has been namedas their link. Each leader was required to exchange information, provide guidance to colleagues working on particular aspects of the programme, and generally to undertake a promotional role. As a result, a wider body of knowledge and expertise has been focused on the programme, its context and relevance.

Within a Non-Departmental Public Body such as SNH, Board members have ultimate authority for the strategy and resource disposition of the organisation. The Board of SNH approved the overall programme and the National Prospectuses to ensure consistency in the overall policy approach, and comprehensive and credible coverage of the issues. Each of the 21 Local Prospectuses has been approved by one of SNH's three Area Boards. The Area Boards comprise members with substantial local knowledge and expertise and it was essential to gain their commitment to the process of engagement with local stakeholders and to the content of the prospectuses.

Each part of the organisation which has become involved in taking forward an element of the Zonal Programme has recognised the overall benefits of the strategic integrated approach. The level of "ownership" has increased as it has become more tangible through direct engagement by staff and Board members. The lesson is that, however a concept may be promoted, it is only when it becomes fully embedded in all relevant parts of the organisation that it will enjoy complete support.

# Conclusions

SNH embarked on the Natural Heritage Zonal to achieve greater integration and a more holistic approach to the natural heritage, both in respect of its activities and in the work of others. Some important lessons were learnt as result.

In taking forward such a programme, account must be taken of changing circumstances, and of the need to utilise new approaches which could not have been foreseen at the outset. Attitudes to this type of long-term programme will vary within the organisation and between external stakeholders. Responses will also change over time as individuals and groups engage with the programme and become associated with its successes (and setbacks). Management within the lead organisation must

ensure that both positive and negative elements are recognised, and that action is taken to build on success and address problems.

Integrated approaches to the natural heritage must have as their primary focus the benefits to the natural heritage itself and to those who depend upon it, and use it both directly and indirectly. At the same time, it must be pursued in ways that are linked with economic and social agendas. Although the development of a long-term vision does not necessarily find favour with all interests, it is essential, not least because the decisions which others take will help to shape the natural heritage, and affect other interests too. Visions must, however, be both realistic and imaginative. Mapping out the programme of action and defining the role for stakeholders are also critical. All stakeholders must be willing to re-order priorities and resources in order to attain the longer-term vision. As a result, the benefits of utilising integrated approaches to the natural heritage should accrue to the lead organisation itself and to its partners.

SNH's experience with the Zonal Programme shows that it can be used to advance the culture of an organisation, particularly in its management and motivation. This can be done if the programme is linked to a management strategy. Similarly, a precise articulation of the vision, objectives and actions will help to develop further the relationship with working partners.

This chapter has described the genesis of a new approach to integrating the various aspects of the natural heritage and its use in Scotland, and the stages of its development and implementation. Only time will tell whether real benefits for the natural heritage are realised. However, without such an approach, work would continue in an isolated and fragmented manner. It would lack the essential sense of vision for the natural heritage, with the resultant incremental impoverishment of the natural heritage and its non-sustainable use. The Scottish experience suggests that a more co-ordinated and integrated approach is possible.

#### References

Carey, P.D., Dring, J.C.M., Hill, M.O., Preston, C.D. and Wright, S.M. 1994. Biographical zones in Scotland. SNH Survey and Monitoring Report No.26.

Carey, P.D., Preston, C.D., Hill, M.O., Usher, M.B. and Wright S.M. 1995. An environmentally defined biogeographical zonation of Scotland designed to reflect species distribution. Journal of Ecology, 83, 833-845.

Countryside Commission and Scottish Natural Heritage. 1999. Interim Landscape Character Assessment Guidance. CC/SNH, Cheltenham.

Crofts, R., 1994. An Integrated Natural Heritage Organisation in Scotland. Paper presented to Conference "Merits of Merger", University of Cardiff.

Crofts, R., 1995. Natural Heritage Zones: a new approach in Scotland, in J.M. Fladmark (ed) "Sharing the Earth", Donhead, 227-244.

Crofts, R., 2000. Sustainable Development and Environment: Delivering benefits globally, nationally and locally. Scottish Natural Heritage Occasional Paper 8.

Crofts, R., 2001. Delivering benefits globally, nationally and locally. In Smout, T.C. (Ed), 'Nature Landscape and People Since the Second World War: A Celebration of the 1949 Act'. Tuckwell Press, East Lothian.

Crofts, R., Maltby, E., Smith, R., and Maclean, L., (eds). 2000. Integrated Planning: International Perspectives. SNH/IUCN/RHIER, Edinburgh

Eden, C., and Ackermann, F., 1998, "Making Strategy: The Journey of Strategic Management". Sage, London.

Kiemer, M.C.B., Casey, P.D., Palmer, S.C.F. and Roy, D.B., 1998. The biogeographical zones and biodiversity of the coastal waters of Scotland. Scottish Natural Heritage, Research Survey and Monitoring Report 103.

Maltby, E., and Crofts, R., 2000. From Concept to Action: Challenges for the Implementation of Integrated Management. In Crofts, R., et al "Integrated Planning: International Perspectives", SNH/IUCN/RHIER, Edinburgh, 83-88.

Mather, A., and Gunson, R., 1995. Biogeographic zones in Scotland: a review. SNH Review No.40.

Mitchell, C., and Balharry, D., 2000. Natural Heritage Zones: Working with Scotland's Natural Diversity and Planning for its wise use. In Crofts, R., et al "Integrated Planning: International Perspectives", SNH/IUCN/RHIER, 41-44.

Miller, K. 1996. Balancing the Scales: Guidelines for Increasing Biodiversity's Chances Through Bioregional Management. World Resources Institute, Washington, USA

Runte, A., 1997. National Parks: The American Experience. University of Nebraska Press, Lincoln, USA.

Scottish Development Department. 1990. Scotland's Natural Heritage: The Way Ahead. SDD, Edinburgh.

Scottish Natural Heritage. 1993: Sustainable development and the natural heritage in the SNH approach. Scottish Natural Heritage, Edinburgh.

Scottish Natural Heritage. 2000a. SNH: An Introduction, SNH, Edinburgh

Scottish Natural Heritage 2000b. A Natural Perspective: A Corporate Strategy for SNH for the next 10 years. SNH, Edinburgh.

Scottish Natural Heritage. 2001. Natural Prospectuses for Farmland, Woodlands and Forests, Settlements, Coasts and Seas, Mountains and Moorlands, Freshwater. SNH, Edinburgh

Smout, T.C., (ed). 2001. Nature, Landscape and People Since the Second World War: A Celebration of the 1949 Act. Tuckwell Press, East Lothian.

Thin, F., 1999. Landscape Assessment in the Natural Heritage Zones Programme. In Usher, M.B., (ed) "Landscape Character: Perspectives on Management and Change". The Stationery Office, Edinburgh.

#### Figures

- 1. Timetable for Zonal Programme
- 2. Stages in the definition of Natural Heritage Zones
- 3. Systematic diagram of Zones.
- 4. Natural Heritage Zones of Scotland
- 5. Linkage between strategic documents.
- 6. Linkage between Corporate Strategy and National Prospectuses

1994/95	Development of basic concepts			
1995/96	Review of approaches elsewhere			
Late 1996	Approval of the Natural Heritage Zone (NHZ) programme by SNH Board			
1996/97	Implementation of first phase of NHZ programme combined with SNH Organisational Development Programme			
April 1997	Establishment of corporate NHZ team and re-structuring of organisation			
1997/99	Development of six National Assessments			
1997/98	Development of pilot Local Prospectus for Shetland			
1998/2000	Development of other 20 Local Prospectuses			
1999/2000	Development of six National Prospectuses			
Late 2000	Approval by SNH Area Boards of Local Prospectuses for external consultation			
December 2000	Approval by SNH Board of six National Prospectuses and overview for external consultation			
Early 2001	External consultation			
Early 2001	National Assessments on to SNH web site			
Late 2001	Revision of Prospectuses following consultation			
Early 2002	Publication of all Prospectuses			

# Figure 1:Timetable for Zonal Programme

#### Figure 2: Stages in the Definition of Natural Heritage Zones

- (1) Taxonomic classification: 6 species groups
- (2) Climatic data: 16 variables

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- (3) First stage zonal map: 10 zones (see Figure 3)
- (4) Literature of review of spatial sub-divisions of Scotland
- (5) Soil and topographic data
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- (6) Land Use data
- (7) Landscape Character Data

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(8) Final map of 21 Natural Heritage Zones (see Figure 4)

Figure 5:	Linkage of Strategic Documents			
Timescale	(years)	Document		
Long	25	National Prospectuses Local Prospectuses		
Medium	10	Corporate Strategy		
Short	3	Corporate Plan		
Short	1	Operational Plan		

Figure 6:	Linkage	between	Corporate	Strategy	and	National
	Prospectu	ises				

National	Corporate Strategy Theme			
Prospectus				
	Caring for the	Enriching People's	Promoting	
	Natural World	Lives	Sustainable Use	
Mountain &	$\checkmark$	$\checkmark$	$\checkmark$	
Moorland				
Farmland				
Forest & Woodland	$\checkmark$	$\checkmark$	$\checkmark$	
Coasts & Sea	$\checkmark$	$\checkmark$	$\checkmark$	
Freshwater	$\checkmark$	$\checkmark$	$\checkmark$	
Settlements		$\checkmark$	$\checkmark$	