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**IMPROVING THE EFFECTIVENESS OF PROTECTED AREAS: THE
EVOLVING PICTURE – ROGER CROFTS, SCOTTISH NATURAL
HERITAGE**

Introduction

In this paper I shall reflect on the protected area system which we have in Britain, and particularly in Scotland, in the context of changing needs and circumstances and lessons from elsewhere. First, I shall examine the effectiveness of current protected area mechanisms and then spell out what I call 'the three absolutes' of the evolving picture: new frameworks, policy shifts and improving management capacity.

I also shall stress the importance of the work of IEEM for SNH and for the conservation movement as a whole. I welcome the fact that SNH staff are members of the Institute, but I hope for more of us.

The Current Position

Protected areas are the bread and butter of many members of the Institute and of statutory agencies, many NGOs and consultants. They are supported by many owners and occupiers who regard protected area status as an accolade. Unfortunately, the vociferous arguments of the few appear to hold more sway than the quiet support of the many. At times they are opposed by local community interests and land owning interests as being an imposition, reducing the financial viability and capital value of land, and more recently being an anti-human rights imposition. They are also widely misunderstood with claims that there are too many types, and that they have overlapping aims and purposes, that there is no systematic approach. These are common perceptions not wholly justified. There are demands, therefore, for wholesale changes. It is not possible to undo the situation: Scotland and the UK is legally tied into International Conventions (eg Berne, Bonn, Ramsar),

European Directives (Birds, Species and Habitats) and national statutory duties (eg SSSIs, NSAs, NNRs).

The really critical question is: are protected areas really delivering biological and landscape diversity conservation and, enhancement? Unfortunately, I do not think the jury would find a particularly positive verdict.

The system is relatively simple. In Scotland there are two basic types: species and habitat conservation through SSSIs and landscape protection through NSAs; and to the former we have now added Natura 2000 terrestrial sites.

SSSIs are a longstanding part of the system and are accepted, by many constituencies as suitable recognition of the wildlife which they contain. There is still discomfort over the scientific basis as opposed to economic and social factors, the length of items for consultation under the Potentially Damaging Operations system, the lack of formal statutory appeal measures on non-scientific grounds and the voluntary basis of protection on the part of owners and occupiers (Scottish Office, 1998). Some of these points are likely to change in England and Wales under the provisions of the Countryside Rights of Way legislation (not approved by Parliament at the time of writing) and in Scotland when the Scottish Executive publishes its proposals.

For National Scenic Areas in Scotland, there is no longer any statutory basis, many local authorities are not enthused or interested in the system, and there are only two pilot management strategies now of some standing. Following a request from government, SNH has undertaken an extensive review in consultation with key organisations. In our published advice (SNH 1999a), we argued the case for national landscape protection to continue to be based on natural beauty and amenity rationale. We made strong recommendations for new statutory powers on the purpose and management of NSAs, and a duty on local authorities to prepare management plans and to implement them. We argued for legislation as part of the National Parks (Scotland) Bill. To-date, Government has noted our proposals but has not indicated any urgency

in taking them forward. In the meantime, we are working on two pilot studies with local authorities and other interests in Wester Ross and Galloway in the hope of moving things forward. (See Crofts 2000a)

Natura 2000 is the most significant protected area programme within the European Union. This is a plus in itself along with the fact that it extends to the marine environment, provides the strongest area-based wildlife protection measures yet seen in the UK, has an accompanying financial instrument, and should ensure a comparable approach in 15 European countries. The timescales for its delivery, which are now very short, are creating problems for meaningful consultation and hence, for example, all of the hen harrier candidate SPAs in Scotland have been objected to and at the time of writing court action is threatened. The UK Government's position on the need for all SACs and SPAs to be underpinned by SSSI has been a cause of concern in Scotland. Certainly where those have not been underpinned by SSSIs, as in the case of the Lewis Peatlands, it has also proved a palatable measure for local interests and effective for wildlife protection. Here 2700 crofters together with the local Council have agreed the proposals and already crofters representing 50% of the land area have signed up for the positive management scheme and accompanying payments. In contrast, the necessity of using the SSSI mechanism on Berneray adjacent to North Uist in the Western Isles created a great deal of unnecessary aggravation without providing any additional benefits for wildlife protection.

National Parks in Scotland is new approach, evolved from longstanding approaches elsewhere following an in depth review of international experience (SNH, 1998) but with differences. There are four-fold interlinked and equal aims of: cultural and natural heritage protection, sustainable use of natural resources, promoting understanding and enjoyment, promoting sustainable social and economic development. However the 'Sandford principle' remains supreme, meaning that in case of conflict, then protection of the natural and cultural heritage must take precedence. New mechanisms of formal public consultations have been introduced in relation to National Park proposals, on Designation Orders and on management plans. There are also

new approaches for determining membership of park boards to ensure local representation, including elections. There is also acceptance of the relevance of zoning principles, although this is not included in the Act. Formal consultation on the first two National Parks: Loch Lomond and the Trossachs is underway (SNH 2000a), and Cairngorms will follow in late 2000 is underway (SNH, 2000b).

Marine protected areas have at long last arrived in practice and others are in prospect. Initially, Natura marine protected areas were slow to gain momentum but steady process is now being made with the aid of EU LIFE funding, in engaging key constituencies especially fishermen. There are also opportunities for marine National Parks separate from or coupled with terrestrial National Parks under the National Parks (Scotland) Act 2000 (Scottish Parliament, 2000). A generic development programme is being lead by WWF Scotland with SNH involvement, and ideas for the first marine National Parks have been broached: the Inner Hebrides and the Fair Isle area.

We have made very considerable progress on protected areas but there are still many factors inhibiting full delivery of biodiversity and landscape protection through the protected area mechanism.

1. Protected areas are too small: they are predominantly site, rather than area, based measures and there is lack of recognition of cross-boundary issues;
2. Protected area approaches are too static: too often we take a preservation approach when the dynamics of change, environmental as well as social and economic, is critical;
3. There are too few financial incentives for protected areas: there is the problems of perverse subsidies for eg agriculture production and the statutory ability to ask for compensation for not damaging nature

conservation sites, as well as insufficient resources for environmental schemes;

4. There is too little concentration on management effectiveness; and
5. There is too little engagement of key stakeholders.

Improving effectiveness: The Three Absolutes

To ensure that protected area mechanisms are more effective in delivering biodiversity and landscape protection, I argue that three changes are needed: adoption of new frameworks, significant shifts in policy, and improvements in our capacity to management protected areas: 'the three absolutes'.

1) New Frameworks

Protected areas cannot be seen in isolation, otherwise to all we achieve is "islands of preservation in a sea of destruction". There are a number of initiatives internationally which need to be implemented in Scotland and UK.

The deficiencies in the present site-based mechanisms, particularly the scale of sites and their ability to deal with the dynamics of change, requires us to think beyond those approaches to wider area mechanisms. SNH argued this case in our statement "Scotland's Environment for Scotland's People" (SNH 1999b). There is already a relevant mechanism on the statute book: Natural Heritage Areas, Section 12 of the Natural Heritage (Scotland) Act 1990 (see Scottish Office, 1991). Although this has never been implemented many of the issues we face in wide areas could be resolved using this instrument.

Take, for instance, the Flow Country of Caithness and Sutherland: an internationally important area of blanket mire and wetland birds. Over a decade of effort by NCC and then SNH to protect this area using SSSIs and latterly SACs and SPAs does not in our view secure the perpetual protection of this whole ecosystem. It's ecological status is dependant upon the hydromorphological systems of the area; and yet, using existing mechanisms

it is not possible to ensure that the surface and sub-surface water systems are subject to consultation on their use and management. A wider area approach, such as the NHA, would resolve this issue and, hopefully, result in the area achieving inscription on the World Heritage List. SNH and local interest would like to achieve the accolade status and the opportunities this will bring for environmentally sustainable tourism.

Agreement on the definition of the ecosystem approach has now been achieved internationally. The Fifth Conference of the Parties of the Convention on Biological Diversity, meeting in Montreal in March 2000, agreed the definition of the ecosystem approach as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way”. Twelve Principles were agreed as follows:

1. The objectives of management of land, water and living resources are a matter of societal choice.
2. Management should be decentralised to the lowest appropriate level.
3. Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.
4. Recognising potential gains from management, there is a need to understand the ecosystem in an economic context.
5. A key feature of the ecosystem approach includes conservation of ecosystem structure and functioning.
6. Ecosystems must be managed within the limits of their functioning.
7. The ecosystem approach should be undertaken at the appropriate scales.

8. Recognising the varying temporal scales and lag-effects that characterise ecosystem processes, objectives for ecosystem management should be set for the long-term.
9. Management must recognise that change is inevitable.
10. The ecosystem approach should seek the appropriate balance between conservation and use of biological diversity.
11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.
12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

In addition, five points are proposed as operational guidance:

1. Focus on the functional relationships and processes within ecosystems.
2. Promote the fair and equitable access to the benefits derived from the functions of biological diversity in ecosystems and from the use of its components.
3. Use adaptive management practices.
4. Carry out management actions at the scale appropriate for the issue being addressed, with decentralisation to the lowest level appropriate.
5. Ensure intersectoral co-operation.

In Decision 6, the COP called on all relevant interests to adopt the ecosystem approach. Case studies, pilot projects, regional, national and local workshops are proposed.

In the SNH Corporate Strategy, published in September 2000 (SNH 2000c), we identify a strategic priority “to encourage the use of ecosystem approaches to secure the functioning of natural systems” as our commitment to adopt and encourage others to adopt these approaches.

The ecosystem approach is applicable at different geographical scales; for example, the Meso America Corridor through to English Nature’s Natural Areas and SNH’s 21 zones. These approaches and their conceptual underpinning are addressed in the proceedings of a workshop ‘Integrated Planning: International Perspectives’ (Crofts et al 2000).

Protected areas are clearly linked to biodiversity conservation, hence Article 8 of the Convention on Biological Diversity. We need to think more fundamentally in our Biodiversity Action Planning work how to ensure that work within protected areas is fully integrated.

Overall, although there is recognition of the value of protected areas, we still need intellectual and practical effort to link them to wider ecosystem management, develop bio-regional approaches at the appropriate geographical scale so that we can connect protected areas to the wider countryside, and to ensure improved links between biodiversity action and protected areas.

2) Policy Shifts

Protected areas need supporting shifts in policy if their effectiveness is to be improved. I identify what I regard as the four most critical ones.

Foremost, is developing the environmental sustainability concept into clear protocols, especially as far too often sustainable development is taken as a

purely economic construct. This is required at international level with respect to trans-boundary protected areas especially as they can form the basis of new beneficial relationships between countries, for instances Peace Parks; at regional level for instance in the Natura and Emerald networks in the European Union, and nationally for SSSIs, National Parks, NSAs and AONBs (see Crofts 2000b).

Second, we need greater integration across all relevant government policies for sharing responsibility for the delivery of biological and landscape diversity conservation through protected areas. The balancing duties of Government departments, for example in the Wildlife and Countryside (Amendment) Act 1985, are badly in need of updating in the light of CBD and other international instruments. Greater acceptance of their roles as competent authorities under the EU Directives is necessary for those departments and public bodies dealing with water resources, fisheries, and forestry.

Third, the removal of perverse subsidies is essential. These cause a significant reduction, both stepwise and incremental, in biological and landscape diversity. Foremost is agriculture where the need is to modulate further resources from production support into agri-environment. A much more flexible approach in agri-environment schemes is needed to deal with the diversity of landscapes wildlife and to prioritise statutory protected areas as the primary target for support. We need to argue this case more effectively within the UK and in the EU.

Fourth, we need a radical and formal shift in conservation resources. Surely everyone now understands that compensation for threatening to undertake a damaging activity on an SSSI is ecologically unsound and is poor value for money. It is vitally important that compensation is removed; indeed, it should have been removed a long time ago, as many of us had argued. In the meantime, statutory agencies have proved quite conclusively that it is more cost effective and environmentally beneficial to have positive management agreements. Over the 1990s in Scotland the area covered has risen from

50,000 ha to 230,000 ha, and the average annual cost has fallen from £11,000 to £2,500 (SNH, 2000d).

3) Improving Management Capacity

The third absolute is to increase and improve the capacity of all stakeholders to manage protected areas. We need to be more creative in our approach. In addition to the traditional stakeholders, such as owners, occupiers and managers of land and environmental bodies we need to recognise that often have a legitimate role. Engaging local communities and other local interests, engaging with urban interests, engaging with young people, engaging with retailers and consumers, and energy and mining interests are all necessary. It will not be easy. An interesting example was the involvement of school students in a discussion forum on 'Scotland's Environment: What Future?' (see Holmes & Crofts, 2000).

The starting point has to be for all protected areas to have explicit aims and objectives. If at all possible these should be negotiated and agreed by all stakeholders. Management plans for Scotland's new National Parks and site management statements for all Scottish SSSIs point us in the right direction.

In seeking to restore natural processes or to interfere with or interrupt human-induced actions, we must have adequate scientific underpinning. Too many times we live on hunch or we have restoration projects without any thorough scientific assessment and parallel monitoring. Using science to inform over restoration efforts and putting in place formal scientific evaluations are needed, so that we can do a better job in the future.

We need to have a greater understanding of the use of zonation principles to deliver aims and objectives within protected areas. The Canadians have used the model very effectively in some of their National Parks, although I doubt the effectiveness of zonation approaches in some of the French National Parks. The biosphere reserve approach (as opposed necessarily to Biosphere Reserves themselves) is a very good model and we are now recognising how

farsighted it was (IUCN/UNESCO, 1998). The way that it is implemented in other countries, especially France, should be more seriously considered in the UK in the light of the DETR review of Biosphere Reserves (Price et al, 2000). We should also use the IUCN Protected Area management categories as a means of zonation (IUCN WCPA, 1994). It is not so much which one of the six categories of management applies to an individual protected area, such as whether National Parks in Britain or Austria or Hungary, are Category 2 or Category 5, but using the objectives of management and the material on organisational responsibilities in the guidance to help improve management effectiveness. Indeed, there is no reason why, for larger protected areas at least, three or four of the management categories could not apply.

We need to continue to improve our monitoring and evaluation systems. In Britain we have just moved forward on site condition monitoring for SSSIs, and the Recorder package has been re-jigged and updated. Now we must review the resultant material in order to use it to feedback into assessing the achievement of management aims and objectives and to inform decisions on whether we need to change them. Marc Hockings has lead excellent work on this subject and it provides a firm basis for action (Hockings, 2000).

The process of engaging all stakeholders is vitally important, particularly as most of our protected areas are on private land, compared with the situation in other parts of the world. Yet not many of us were trained to undertake these tasks. Processes of engagement from the first germ of the idea to reviewing management effectiveness and implementing necessary changes is required. However, we must ensure that the process is not an end in itself and that it delivers a product in terms of better management of protected areas.

Resources are always scarce and therefore we should review how we could raise money from others. In particular we should recognise that commercial activities such as tourism, forestry and different types of agriculture, are relevant and appropriate in protected areas provided that environmental sustainability is achieved. The work of the WCPA Group (WCPA, 2000) is an excellent review of what can be achieved.

Related to this is the importance of information exchange on best and worst practice. I am sure the IEEM has a role to play here as well as other organisations such as the various networks within IUCN and most especially WCPA, and Eurosite and Europarc. Networking through membership of these organisations and through the evolving links between them will become increasingly important.

As Chairman designate of WCPA Europe, I encourage members of IEEM to join us if you have a commitment to protected areas and are prepared to participate actively in our work (contact roger.crofts@snh.gov.uk or andrej.sovinc@guest.arnes.si).

There is excellent support information available. For example, IUCN WCPA has established a “Best Practice Protected Area Guidelines Series”. The six published volumes cover: national planning systems (Davey, 1998), economic values of protected areas (WCPA, 1998), marine protected areas (Kelleher, 1999), indigenous and traditional people in protected areas (Beltram, 2000), financing protected areas (WCPA, 2000) and evaluating effectiveness (Hockings, 2000). They can be accessed along with other protected area information from the website on www.wcpa.iucn.org.

Given the diversity of approaches in terms of devising and implementing new frameworks, arguing for shifts in policy and increasing management effectiveness, then we must ensure that all of us involved in protected areas have the requisite skills and competencies. The Institute of Ecology and Environmental Management and its members have a key role to play. Appropriate training and continuing professional development are critical. We can only move forward if the advice from professionals in the ecological and wider environmental field really counts. IEEM is in an excellent position to contribute to setting and maintaining standard for ecological and environmental management advice, for example through your code of professional conduct, through working with others in the Government,

voluntary and land management sectors to work towards this standard and your annual series of training workshops.

Conclusion

My conclusion is that protected areas system are evolving but our work as NGOs, and statutory agencies and consultants in form of advisors and managers will be further enhanced if we can adopt approaches which place protected areas in their wider contexts, achieve shifts in policy and improve management effectiveness. Clearly, IEEM has a role to play in “promoting and supporting professionalism”.

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