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THE NEED OF LOCAL AUTHORITIES FOR ENVIRONMENTAL INFORMATION

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1. PLANNING SYSTEM AND PRACTICE

The regulation of land use is only one function carried out by a local authority for which planning is necessary. Planning is needed for transport, the personal and protective services, recreation and so on. All these services require skilled financial planning, decisions on priorities and basic understanding of how our society functions and of how it is likely to change. They also require information on the interrelationships between society and the environment. It is necessary not only to monitor changes in the general environment but to also consider the changing emphasis placed upon different aspects of the environment. What is needed, therefore, is a ready availability of information both on attitudes and on the environment. This information must be in a form which is useful for management decisions - and also made available to the elected Members and, subject to confidentiality constraints, the general public.

The information will be used in the plans and decisions of both County and District Authorities. While most local authority services fall specifically to either the County or the District, the preparation and review of land-use plans and the making of decisions on development proposals are functions which are split between the two tiers of local government. Although there may be some intermittent - and very spasmodic - indications of central government policy at regional level, the main vehicle for expressing broad land-use intentions is the County Structure Plan, prepared by a County Council. This will normally look about 10 to 15 years ahead and has to be brought up-to-date - or 'rolled-forward' - every five years or thereabouts. Since the plans must be approved by central government and the procedure (mainly to accommodate public participation) is necessarily slow, updating often starts as soon as a Structure Plan is approved. The Plan will set out broad guidelines for the amount and general location of land needed for development including housing, industry, offices, shops and other community facilities, as well as the level of private and public sector investment needed to service the proposed development. It should also define in broad terms the land where development should not be permitted and set out objectives for the improvement and protection of the built and natural environment. In addition to their statutory duty to prepare Structure Plans, County Authorities have specific functions relating to decisions on proposals for mineral extraction and waste disposal.

Below the Structure Plan level there are a great number and variety of Local Plans produced to guide development at the local level. These are normally the responsibility of District Authorities. The plans will vary from district-wide development plans, containing the detailed development proposals needed to implement the Structure Plan, to development briefs for specific sites - for instance a recreation facility to a group of buildings to be restored. There may also be plans to regulate sailing in estuaries or rivers, define a Green Belt boundary, conserve a rare habitat, find uses for a derelict industrial site, create a working museum - the list is endless. Plans such as these, whatever they are called, may be relatively short-term or, in cases where relatively little development occurs, provide a basis for local planning decisions for ten years or longer.

In addition to their work on preparing such Local Plans, District Authorities are concerned with the Development Control aspects of planning - the making of decisions on the half a million planning applications which are made each year. The planning policies as set out in the relevant Structure, Local and other plans form a major determinant of the decisions made. However, each application is considered on its merits and other matters besides policy are taken into account in reaching a decision and here accurate and up-to-date environmental information is often of vital importance - and is required relatively quickly given the emphasis by the Secretary of State on the need to speed up the planning system.

District and County Planning Departments vary widely in size and expertise - it is very difficult to generalise. But, inevitably, County departments tend to be larger, with more expertise and information 'in-house'. District Planning Departments are usually smaller and have more need to rely upon external expertise and information. They will, however, have more detailed local knowledge. Compared to County departments they are less concerned with obtaining a picture of environmental changes over a wide area and are more likely to be concerned with information about specific sites.

2. RECENT DEVELOPMENTS

Concern for the Countryside

In recent years critical commentary and a number of causes célèbres have led planners to reconsider rural and countryside planning priorities. The passage through Parliament of the Wildlife and Countryside Act 1981, and the continuing debate which the Act engendered, has increased concern about the ways in which the structure and appearance of the countryside have been, and may in future be, affected by changes in farming, forestry and other land-uses. At both local and national levels there is a growing interest in monitoring countryside change. National initiatives have been taken by the Countryside Commission, the Department of the Environment and the Nature Conservancy Council.

Alongside this emphasis on the conservation and improvement of the countryside heritage has been an increased involvement by local authorities in local initiatives. Joint working with private owners and voluntary organisations is now seen as central to the successful implementation of the local authorities' environmental policies. The Wildlife and Countryside Act increases the scope for management agreements. Private owners may be compensated for using sub-optimal farming techniques in the interests of preserving, or enhancing, the environment. The local authority may be actively involved, not only in advice and as a source of funding, but also in the preparation, and subsequent monitoring, of schemes to manage sites of particular environmental importance.

Developments in the Use of Information Technology

Information is recorded to reduce uncertainty in making decisions. Handling information involves five stages - collection, storage, retrieval, analysis and presentation. Information technology is of increasing help in tackling all these stages - perhaps especially the last (presentation). Allied to the increasing ease of data handling made possible by the new technology is the ability to handle complex tasks efficiently and to tackle jobs not previously considered feasible. Information

systems can be built up to hold and analyse small heterogenous sets of data. In Hampshire, for example, an interactive Environmental Monitoring System is being built up*. As well as giving an opportunity to monitor the success of environmental policies, the information can be analysed to get a picture of the total environmental constraints within an area and the relationship of different features on the ground. The system is being developed incrementally and will be linked to computer graphics and mapping facilities. Several bodies outside the County Planning Department (for instance the County Museums Service, the Recreation Department, the County Archivist, the NCC, the Hampshire Garden's Trust) have already expressed an interest not only in using the information being put into the system but also in adding their own records.

Information Technology will have an increasing impact upon working practices in local authorities in the future. Enquiry services (view data) will become more widely available - allowing elected members, other organisations and the public direct access to a much wider range of information than the present. Much more information will be handled electronically via cable networks - helping to coordinate the work of authorities and allowing access to the information being held by other agencies. Finally, there will be the potential for increasing decentralisation of work, to the home or to the community.

Thus Information Technology has already made possible new, more efficient techniques - better presentation, easier retrieval of information, more flexible models and information systems. It has also helped efficiency - speeding up the handling of information and decision making. The increasing proliferation of software and hardware companies suggest that we are still at the bottom slopes of the mountain. However, it is already evident that there is a lot of scree - that Information Technology will create new problems. Information Technology cannot just be grafted on to an existing organisation without changing that organisation itself, creating the need for new attitudes and skills. The hallmark of Information Technology - the ease of access to information - may also create the need to more carefully and systematically consider confidentiality of that information. Personal data is already subject to very stringent safeguards. But there are grey areas where environmental information is concerned. Protection of rare species is one important aim of preserving the Countryside Heritage - yet it can be self defeating if too many people know of the last habitat of the snake's head fritillary! In such cases, balancing adequate confidentiality with the benefits of easy direct access by other agencies can be very complex to implement.

3. NEED FOR INFORMATION ON THE ENVIRONMENT

The main sources of information on geology, biology, land-use and environmental heritage (historic buildings, archaeological sites and monuments, historic landscapes, sites of national heritage importance, etc) are:

Information external to the authority

- a. Maps - for instance showing the grade of agricultural land, surface geology, SSSIs, country sites (usually presented at different scales and drawn on various bases).

* Further details can be supplied by the author.

- b. Aerial photographs and satellite photographs - often requiring skilled interpretation, although techniques are becoming available to relatively easily produce computer mapping from photographs.
- c. National exercises on land-use change - usually presented as maps.
- d. Agricultural and woodland censuses.
- e. Lists and documents (for instance of listed buildings).
- f. Recent initiatives by other bodies - for instance NCC (surveys of ancient woodland, and now preparing to monitor change in the countryside); DOE consultants appointed to develop a system for monitoring land-use change using data collected by Ordnance Survey Field Surveyors and, in conjunction with the Countryside Commission, to monitor change in the countryside; the Open University and Farnborough Remote Sensing Unit (Land-Use changes mapped from satellite information).

Information internal to the authority

- a. Information from the authority's own surveys to supplement external information.
- b. Information on specific sites of interest (for instance the Environmental Monitoring System in Hampshire may hold site data on Countryside Heritage (Ancient Woodlands, Ancient Lanes and Tracks, Rivers and Wetlands, Heathlands, Chalk Grasslands, Meadows etc): tree planting; historic buildings; archaeological sites and monuments; minerals workings and other environmental constraints (such as Scheduled Ancient Monuments, Nature Reserves or SSSI).

The main characteristics of this information are:

- a. Large amounts of data are produced when new areas are investigated and survey information becomes available.
- b. There are many diverse and partial sources not regularly updated and often using different spatial units and media (maps, photographs, data, reports). It is often time consuming to relate different aspects together and difficult to get a general picture, especially of changes over time.
- c. There is considerable expertise and knowledge required to know the sources, collate the different sources together and to evaluate their significance.
- d. The environmental information itself needs relating to other information for making decisions. A typical rational decision on a particular site may involve:
 - using environmental and other information to consider possible locations (sieve maps).
 - considering in more detail information for possible sites (including, for instance accessibility and potential catchment areas), leading to a further reduction in the possible site.

- presenting detailed costs and benefits of a limited number of possibilities for decision by Members.

The sorts of information considered relevant to the Environmental Impact Analysis involved in this procedure can be detailed and wide ranging and is required at different levels of detail as the decision homes into the most viable site.

Information for this aspect of decision making is only one example of the needs for environmental information by local authorities. More generally, information is required for forming policies, monitoring and specific sites.

Forming Policies

Developing policies to guide development in an area requires analysis of problems and opportunities. There is often the need to relate different environmental aspects together and to compare these to other information. In general, comparable aerial units and comprehensiveness is important; detail and up-to-dateness relatively less important.

Monitoring

Monitoring the success (or otherwise) of policies and general trends requires information on changes in the environment, and intelligence on new opinions, pressures and legislation. There is the need for a core area of hard, regularly updated, information on changes between major land uses (for instance loss of agricultural land) and on recreational activity. However, the ability to quickly assemble information on topics which become issues is more effective than trying to maintain comprehensive updating of all potential aspects.

Site specific information

Information on particular sites is required for development control, local plans, planning appeals, local initiatives, sites of special interest etc. There is a wide variety of reasons for safeguarding a particular site - historic, archaeological, nature conservation, scenic, scientific. All these require individual assessment and possibly treatment and hence data for determining priorities for involvement and possibly management. Such data need to be up-to-date and accurate, especially as they may be open to public debate at, for instance, a planning inquiry.

4. THE WAY AHEAD

The diversity of the needs of local authorities for environmental information makes it difficult to be specific about the relevance of Biological Records or, more generally, environmental or archaeological records kept by the County Museum Service. My feeling is that the potential of the information has been insufficiently realised. However, the impetus to engender greater use of the data lies with the Museum Service. Local Authorities need to be made aware, not only of the nature and extent of the information, but also of its direct relevance to the decisions being made by the authority. I would suggest, therefore, that the County Museum Service contact the Chief Executive and Planning Officer of each county and district authority in its area (together with other public bodies with an interest in land, such as the CEGB and water authorities) with the following information about Biological Records (and any other

related information):

- a. What topics are covered; how up-to-date, accurate and comprehensive is the information; for what areal unit can it be obtained (including the possibility of supplying ad-hoc information for specific sites rather than grid squares).
- b. How the Museum's own records relate to other sources of environmental information, including any data held by the rest of the authority (if known) and why and when the Museum's records should be used in preference to this other information.
- c. How far it is possible to provide an interpretation of the significance of the information: to provide intelligence rather than raw information. Few planning officers would know the relative importance of the existence of a particular species or ecology in an area - even less are they likely to react to a list of fauna and flora "found or seen in the area".
- d. How the information can be obtained (a single point of contact would help); what costs may be involved (if any), and what service can be expected (how quickly can information be obtained, in what form will it be presented, etc).
- e. How the service is expected to develop - are there plans to hold the information on computer and, if so, is direct access possible (note - such direct access could by-pass the filter provided by the expert and lead to problems of confidentiality - see above).
- f. The neutral nature of the information and expert advice: the service provided must not be thought, however unfairly, to reflect, or be influenced by, any sectional interest or pressure group.

The views in this paper are the author's, and do not necessarily reflect those of Hampshire County Council.