

2 THE HANDBOOK SERIES

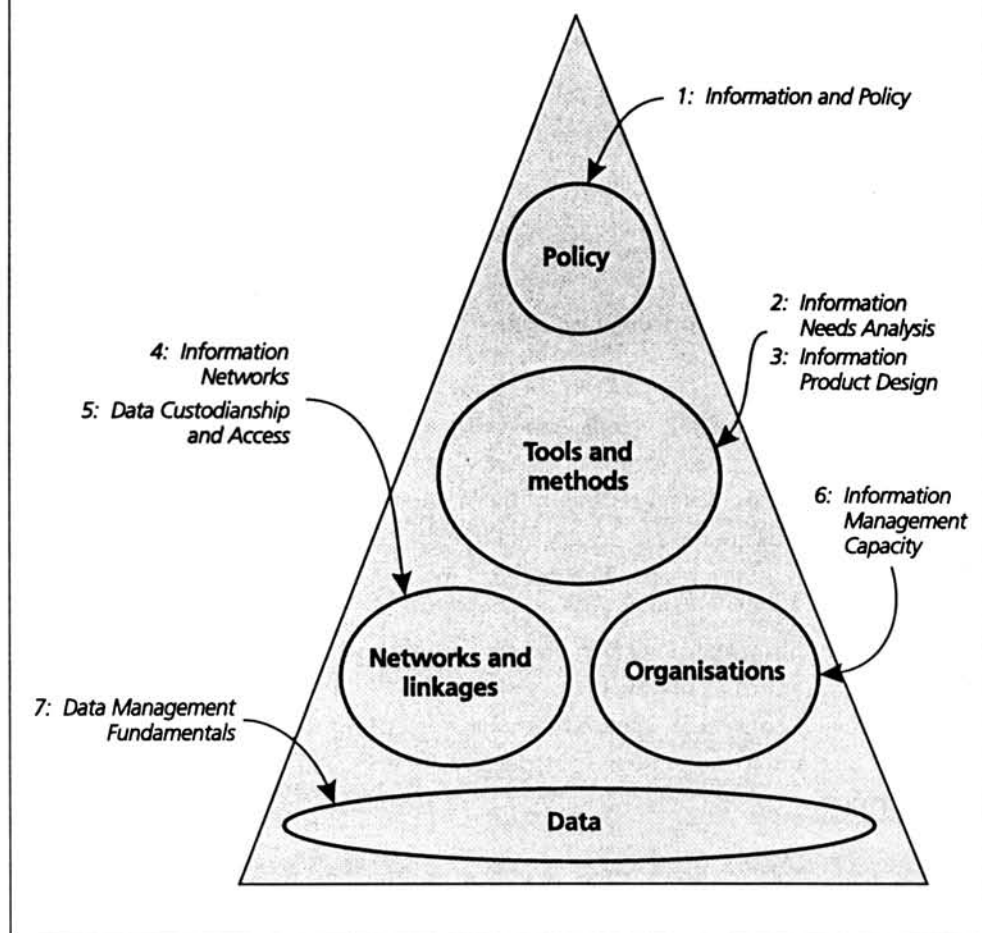
The objective of the handbook series is to support policy and management goals aimed at conserving and sustainably using living resources. The handbooks are based upon the following three principles:

- Information needs to be timely and available in forms which genuinely support decision-making.
- Data should be collected and quality-assured once, and then made available for use in multiple information products.
- Policy-makers, resource managers, information professionals and researchers should attempt to understand each other's perspectives and cooperate in the production of information.

To fulfil these ideals it is necessary to develop an infrastructure capable of storing relevant data, harnessing professional skills to generate information, and then using this information to influence major stakeholders in favour of conservation goals. Ultimately, the last of these is the only true measure of success.

A key requirement is to respond to environmental concerns before they become serious problems. Most countries have some capacity to do this already, although the capacity may not be well coordinated or funded. Remembering that most systems are only as strong as their weakest link, a secondary objective of the handbook series is to help readers judge how far their infrastructure has progressed and identify areas which would benefit from further attention and investment. Although the handbooks are closely interrelated, each has its own individual focus as illustrated in Figure 1 and described below.

Figure 1 The focus of each handbook



● **Volume 1 Information and Policy**

This handbook examines the links between information management and policy, in particular the use which is made of scientific information in the policy-development process. The handbook introduces models for how information can be applied effectively to decision-making (the 'management loop'), and how information professionals, policy-makers and resource users can cooperate in generating information to address environmental concerns (the 'information cycle'). Case studies are drawn from India and the UK to illustrate

the connection between information and policy development. Key topics covered in the handbook include:

- ✓ setting priorities for information management
- ✓ participation and consensus
- ✓ supporting good decisions
- ✓ supporting good policies
- ✓ the concept of an 'information cycle'.

● **Volume 2 Information Needs Analysis**

This handbook provides an outline of the rationale and benefits of conducting an information needs analysis to ensure that investments in information are valued by key decision-making groups. The analysis involves identifying key stakeholders (users); determining their goals with respect to specific issues; identifying constraints on information usage; and determining what information is needed to implement, monitor or review given policies. The underlying goal of the analysis is to achieve a consistent, mutually agreed set of information priorities amongst stakeholders, and to integrate the perspectives of users into a common vision of the way forward.

The handbook outlines some practical approaches which may be used to identify the information needs of decision-makers. Finally, a case study is provided on how an information needs analysis was carried out in the forest sector of a tropical country. Key topics in the handbook include:

- ✓ why an information needs analysis is necessary
- ✓ how information needs are determined
- ✓ tools and methods which can assist in the process.

● Volume 3 Information Product Design

This handbook reviews the design and development of information products with consideration given to content, complexity, structure and layout, and timing in the delivery. The handbook also reviews data needs, underscoring the importance of developing essential datasets for multiple purposes. A review of processing needs considers steps such as data collection, data storage/quality assurance, interpretation/analysis, through to the compilation and presentation of information products. The handbook then considers the development and marketing of strategic products, potentially involving a range of cooperating partners, and introduces a case study on the *World Forest Map*. Key topics include:

- ✓ features of a good information product
- ✓ policy-relevant information
- ✓ abstraction, summary and indicators
- ✓ analysing data and processing needs
- ✓ product development
- ✓ packaging and marketing information.

● Volume 4 Information Networks

This handbook outlines the principles of information networks and explores centralised, distributed and managed networks which largely reflect evolutionary developments in information sharing and access. Central to the effective operation of information networks are clearly defined roles and responsibilities of the partners, i.e. custodians, users and the 'hub'. Partners may, however, play multiple roles and be part of network arrangements operating across different themes and at different levels, from local through to international.

Successful networks have a number of features in common: they have a recognised and easily understood purpose; there is an effective dialogue with users; they are flexible to changing circumstances and demands; and they mobilise and build on existing resources and capabilities in terms of the data, skills and

facilities of a range of partners in support of common information objectives. Four case studies of information networks developed at the global, regional (East Africa) and national levels (Australia and the UK), respectively, accompany this handbook. Key topics include:

- ✓ networking principles
- ✓ network design
- ✓ partner roles and responsibilities
- ✓ achieving common objectives
- ✓ network sustainability.

● **Volume 5 Data Custodianship and Access**

This handbook deals with the principles of custodianship of datasets, drawing distinction between custodians, owners and users. The rights and responsibilities of custodians are outlined, as are considerations involved in the management of custodianship, including assigning, managing and reviewing custodial responsibilities. A technique is outlined to assist steering committees in the determination of custodianship, and the handbook provides guidance on the development and use of data access agreements. Quality-assurance and access to essential datasets are fundamental principles, while pricing strategies are also considered. The *Commonwealth Custodianship Guidelines*, from Australia, provide a useful case study of the real life application of custodianship. Key topics include:

- ✓ principles of custodianship
- ✓ functions of custodians
- ✓ assigning and managing custodianship
- ✓ data access agreements.

● **Volume 6 Information Management Capacity**

Every organisation possesses its own individual strengths, weaknesses and objectives for information management. This handbook examines how to assess the current level of capacity within an organisation, with particular reference to direct assets (e.g. datasets, expertise, facilities) and indirect assets (e.g. management systems, partnerships), providing the basis for strategic planning and investment in capacity building.

The handbook outlines components of an institutional survey, supported by a comprehensive questionnaire as an annex, and reviews the analysis and presentation of survey results. An overview of strategic planning is provided, and the handbook considers the key steps in enhancing an organisation's information management capacity, particularly as it supports wider goals within networks. A case study on national institutional survey in Ghana is then introduced, with reference to strategic planning and policy support. Key topics include:

- ✓ assessment of capacity
- ✓ suggestions for analysis
- ✓ strategic planning
- ✓ capacity building.

● **Volume 7 Data Management Fundamentals**

This handbook deals with the development of an efficient infrastructure to underpin information production. The aim is to increase the usefulness of datasets by ensuring that they are flexible, standardised, of a high quality and accessible. A basic premise is that primary data should be managed as the basis for the production of a wide range of information products.

The handbook provides a discussion of data standards, validation and maintenance of data, documentation, data security, and the use of quality-management standards. Consideration is given to the selection of information technology, particularly as it relates to the concepts of scalability,

connectivity, compatibility and sustainability. The handbook concludes with a section on database development.

A *Tree Conservation Database* serves as a case study, illustrating many aspects of the information cycle introduced in Volume 1 (i.e. from identification of information needs to the establishment of an information service underpinned by data which are managed following accepted standards and information management procedures). The Tree Conservation Database also serves as one of the complementary training aids to the handbook series. Key topics include:

- ✓ data flexibility
- ✓ data standards
- ✓ quality-assurance
- ✓ information technology
- ✓ database development.