2 BASIC PRINCIPLES

Information networks, which are simply assemblages of individuals, groups and organisations with common information goals, overcome barriers to data access by focusing on the need for cooperation. They range in size from loose associations of individuals based upon personal contacts and historic ties, to actively managed consortia of government agencies, NGOs, scientists and private organisations, all with shared information goals. The aim is to build trust and confidence between the network's partners, who may include scientists, policy-makers and resource managers, leading to **improved uptake of scientific information in policy and planning** (see Volume 1).

The rewards of information networking can be great. For example, more reliable access to data can enable organisations to fulfil their core responsibilities more effectively and consider new opportunities and roles. Participation in networks enables information products to be developed with wider support and with greater efficiency. It is a classic 'win-win' situation in which organisations — whether they are providing or receiving data — become empowered through cooperation.

However, it would be naive to assume that active and positive cooperation will happen as a matter of course. Each partner (or stakeholder) must be able to see some **concrete benefits in joining the network**, whether this is the ability to improve the quality of a dataset, acquire access to other datasets, or enter a long-term relationship with another organisation. As the network becomes established and recognised, further potential benefits are economies of scale, minimised duplication of effort, and external investment on a scale which could not be attracted by individual partners.

Information networks require substantial effort to establish and further effort to maintain. Benefits must be perceived as exceeding the costs of participation, for example in terms of the time and resources spent liaising with other partners (networks are unlikely to succeed unless this fundamental principle is understood). When balancing the costs and benefits of entering an information network a key question is 'what will it cost me to contribute?', as well as 'what can I expect to gain?'.

Information networks tend to establish themselves in similar ways. The initial push is from non-governmental organisations, professional associations and scientists who are often among the first to become aware of impending environmental issues, and wish to share information and experiences in order to support each other's activities.

As awareness of the issues rises, and the activities of the individuals concerned become seen by outsiders as a credible source of information, cooperation is consolidated by harmonising approaches to data management and by developing information as a group rather than separately.

Informal networks of this kind can be operated on very low budgets, since they are driven primarily by the personal commitment of individuals. Eventually, however, increased size, prominence and acceptance by greater numbers of users can enable information networks to grow into self-supporting bodies, for instance with secretariats, which are **recognised or even adopted by governments**. Not all networks develop in this way: some may be initiated directly by governments or industry, or indirectly via externally sponsored projects.