Doc. 10.82 (Rev.)

Interpretation and Implementation of the Convention

DEVELOPMENT OF AN INFORMATION MANAGEMENT STRATEGY

1. The World Conservation Monitoring Centre (WCMC) has prepared this Information Management Strategy (IMS) at the request of and in collaboration with the Secretariat.

Background

2. The recently completed study by Environmental Resources Management (ERM) on how to improve the effectiveness of the Convention (refer to Notification to the Parties No. 951 and documents Doc. 10.20 and 10.21), concluded that "*while the assistance provided by the Secretariat and certain Parties in information and communications is well appreciated, there is a general call for expansion of these efforts in the interests of enhancing the effectiveness of the Convention*"[1].

3. In its report, ERM specifically recommended (recommendation 5E) that the Secretariat should commission a feasibility study to identify specific requirements for improving electronic communications between the Parties. They recommended that "*a feasibility study is carried out to assess the magnitude of the technical and financial assistance that would be required to implement such improvements, to assess the degree of regional disparity in the need for assistance, and to develop realistic proposals for financial support*".

4. The Secretariat consulted WCMC and requested them to develop an Information Management Strategy (IMS) for the Convention, with the main objective of ensuring that the Parties are provided with the information they need, and that capacity building occurs, to ensure that the Parties have the technical ability required to handle the information that is needed to implement the Convention adequately.

5. An early draft of the IMS was presented to the Standing Committee at its 37th meeting (Rome, 2 to 6 December 1996). The Standing Committee endorsed the Secretariat's development of an IMS for the Convention, and asked that a document be prepared for consideration at the 10th meeting of the Conference of the Parties. This document is presented in the attached Annex.

The Strategy

6. The IMS places importance on the use of electronic media as a means of collecting, managing, interpreting and communicating information of relevance to the Parties.

7. Since the Management Authorities of many Parties do not have access to electronic means of communication, the strategy addresses the need to build the capacity of the Parties in this respect.

8. Importantly, the IMS is not a controlling or centralized mechanism but rather an enabling framework within which the Parties to the Convention enhance their own efficiency and effectiveness in implementing the Convention.

The Pilot Study

9. Implementation of the IMS is proposed through a two-phase programme.

10. In Phase 1, a pilot study is to be conducted, involving a single CITES region, to be selected by the Conference of the Parties.

11. For the selected region, the pilot study will involve:

    – preparation of information management training materials and the conduct of a regional workshop;

    – analysis of Parties' needs across a range of issues (standard CITES software, permit-data sharing system, identification support system, needs for scientific data and CITES information materials); and

    – delivering standard products to the Parties (Annotated Appendices, Checklist of CITES Species, Web Site).

12. The costs of implementing the pilot study are detailed in the Budget section of the attachment.

13. The commencement of Phase 2 of the programme will depend on the successful implementation of the pilot study.

Recommendations

14. The Secretariat endorses the proposed Information Management Strategy and refers the document to the Conference of the Parties for approval.

15. If approved, the Conference of the Parties will need to:

    – select the region in which the pilot study is to take place; and

    – instruct the Budget Committee to include the costs of implementing the pilot study as a separate budget line in the Trust Fund.

Doc. 10.82 (Rev.) Annex

CITES Information Management Strategy

Introduction

This paper outlines an Information Management Strategy (IMS) for CITES. It is intended to establish a framework for information management within the entire CITES community. It is not intended to be implemented by any single agency. To be robust and effective it should involve wide participation and close co-ordination. A budget is attached. While certain of the activities proposed can be accurately costed now, others require further definition before firm costs can be determined. Securing the financial resources to establish the IMS will be a challenge. However, the IMS has the potential to create enormous savings in efficiency as well as to improve the effectiveness of the Convention.

---

[1] See Environmental Resources Management, "Final Report. Study on How to Improve the Effectiveness of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)", Reference 3713, September 1996, 91 pp. + Annexes.

Goals

1. To build capacity in national CITES authorities to collect, manage, interpret and use relevant information.

2. To ensure the co-ordinated provision of information services that support the implementation of CITES.

Vision

The strategy will provide the CITES community with a cost-effective and efficient approach to information management, encompassing the community's requirements for information of different types (e.g. identification materials and quotas), available in different forms (e.g. computer-readable files and printed publications) to different agencies (e.g. national management, scientific and enforcement authorities). The strategy will be inclusive of different levels of sophistication, so that all Parties can benefit.

Process and implementation

The Secretariat will steer the Information Management Strategy using feedback from the Parties to ensure that it continues to develop an optimal information environment for CITES implementation. The IMS should be open-ended since technological changes are likely to continue to improve the opportunities for information management within the CITES community. Implementation of CITES is expected to be more effective if actions in response to these changes are co-ordinated.

The activities set out below are broad ranging. Their implementation will necessarily involve many organizations. To be effective, the IMS should not be a controlling mechanism, but rather an enabling framework within which national agencies can pursue actions that enhance their own efficiency and effectiveness in implementing the Convention.

It is proposed that the IMS be implemented in phases. Further details are presented in the Budget section below.

Justification

To implement CITES, the Parties must take decisions and actions that require information. Much of the same information is needed by many if not all of the agencies involved. Many of the experiences, principles and underlying constraints associated with marshalling this essential information are also shared between Parties. And yet, there is no explicit global framework within which the Parties can undertake information management to support their actions to implement the Convention.

The information needed by the Parties can be placed in two broad categories:

1. Information that applies to individual Parties or that is relevant to a few Parties only.

   Such information includes details of permits issued and used, trade levels, population sizes and quotas. Parts or all of this information might be shared between national authorities, between neighbouring Parties, or between those Parties that share species or those which trade together in wildlife commodities covered by CITES.

   Critical management functions for this category of information are to collect, manage, use, communicate, share and interpret the information. Although some of the underlying information will differ between Parties, the Parties will face similar challenges in managing it.

   Parties would benefit from sharing experiences and techniques on their approaches and solutions to managing information, and from assistance to build their capacity to manage information.

2. Information that is needed by all Parties.

   This includes general information about the Convention (Parties' details, Notifications, Reservations etc.) and details of the species listed in the Appendices (taxonomy, common names, range States, conservation status, identification materials, etc.).

   Critical information management functions are quality assurance and availability in appropriate forms for use by the various national authorities when they are needed.

   Parties would benefit by being able to access relevant information of appropriate quality managed by scientific institutions and networks.

Background

The CITES community is information-rich and generates large volumes of data. It has already had to address information management to ensure the flow of information and feedback between the agencies at national level, the Secretariat and other organizations, such as the non-governmental sector.

An important pillar of CITES' existing information management is the adoption of standards and the management of processes to ensure their maintenance and use. The Nomenclature Committee recommends standards for adoption. Standards established by the UN and by the International Organization for Standardization (ISO) are used for geographic data.

To monitor and control international trade in endangered species, the Parties are required to report trade in listed species. Resolution Conf. 9.4 and Notification No. 788 define the annual report format. In order to comply, Parties must in effect maintain some form of national trade information management system covering permits issued and used. Individual Parties decide whether to use a computerized system or some other system to support their activities to implement the Convention.

CITES data management is therefore highly decentralized with the national authorities in each Party collecting and managing information relating to their imports and exports of CITES-listed species.

Decentralization brings many challenges. These relate primarily to establishing common standards (use of names, terms and other descriptors of species), sharing experiences and building capacity, as well as gaining access to relevant information that may be generated or managed elsewhere in the decentralized system.

There are a range of existing resources available to support the implementation of CITES. A number of these are listed below (it is emphasized however that the list is not intended to be comprehensive).

– *CITES Notifications.* These provide information to Parties on a number of topics relating to operation of the Convention.

– *CITES Trade Database.* Subsets of national data (relating to annual reports) are integrated to facilitate analyses of trends and patterns in reported trade under CITES. Implementation analysis (see Doc. 10.26) is undertaken using the database.

– *Reviews of Significant Trade.* Reports from the reviews of Appendix-II species are an important source of detailed information on trade levels and their impacts on individual species.

– *Checklist of CITES Species* and the *Annotated Appendices and Reservations* provide details of species covered by the Convention together with dates when decisions became effective.

- *World checklists of mammals, birds, reptiles, amphibians, fishes and invertebrates listed in the CITES Appendices* are a source of information on range States of CITES-listed species.

- The *Identification Manuals* are detailed guides to identification.

- *The Evolution of CITES* provides a reference to the Convention, its implementation and Resolutions from the meetings of the Conference of the Parties.

- *Analyses of Proposals to Amend the CITES Appendices* contain much useful information about taxonomy, distribution, trade and status of species, compiled to inform decision-making by the Parties.

- *CITES-sponsored field projects* generate considerable information about the status and management of particular species.

Parties and other users can access certain of these resources using the Internet. Computer files that can be down-loaded include the CITES appendices, the text of the Convention, Notifications, Reservations, Decisions of the Conference of the Parties, the CITES Directory. These are available on the Internet at *ftp.wcmc.org.uk*. A CITES Web Site is being established so that the information can be browsed on the Internet.

Many Parties have made great progress in developing their own capacity to manage CITES information. Others have collaborated with one another to develop their capacity and information systems. The Secretariat has assisted Parties in numerous ways, and collaboration with non-governmental organizations has contributed. Within the EU for instance, efforts to support the implementation of CITES are co-ordinated by the European Commission but also involve TRAFFIC Europe and WCMC. An initiative is under way in SADC countries and involves the World Conservation Union's Regional Office for Southern Africa and TRAFFIC East/Southern Africa.

In 1994, the Secretariat initiated a review of national computerized systems of CITES Management Authorities to assess the number in use and their capabilities. At that time, there were fewer than 40 Parties using computerized systems. Since then, a number of Parties have expressed interest in adopting the same computerized system to manage permit issuance and reporting.

In parallel with the development of this Information Management Strategy, a consortium of non-governmental organizations has initiated the development of a *Biodiversity Conservation Information System (BCIS)*. The organizations are: BirdLife International, Botanic Gardens Conservation International, IUCN Commission on Ecosystem Management, IUCN World Commission on Protected Areas, IUCN Environmental Law Centre, IUCN Species Survival Commission, TRAFFIC, Wetlands International and the World Conservation Monitoring Centre. BCIS will draw upon the extensive biodiversity data and information held by the founding partners, supporting compatible methods of managing biodiversity data and information, and thus allowing easy integration of data within and between regions and disciplines (e.g. combining information on species, ecosystems and legislation).

Key issues to be addressed by the IMS

1. *Capacity to manage CITES information*

   Issue: Little support is available to Management Authorities specifically to assist them to enhance implementation of the Convention through improved information management. Capacity building for information management, advice and/or training could have a significant impact on implementation of the Convention. Mechanisms could be developed to enable Parties to share with each other their experiences in addressing information management for CITES implementation.

   Key activities:

   1.1 Develop and disseminate an overview of the data and information requirements of CITES and the factors critical to successful implementation

   1.2 Provide training in information management at a regional level as an addition to existing CITES training programmes

   1.3 Pilot an official Internet-based discussion facility open only to national authorities and CITES committees to assess the benefits of more direct sharing of information by implementing agencies

2. *Issuance of permits and certificates, and annual reporting*

   Issue: Management Authorities use diverse systems to manage permit issuance and annual reporting. Most systems are not computerized. There would be advantages (uniformity of reporting, financial savings) from standard approaches to computerized information management. Suitable software applications tailored for managing CITES-related information for use by interested Parties could be identified from among existing systems. Alternatively, if this were judged to be more cost-effective in the long-term, a standard system could be designed as a platform for future development.

   Key activities:

   2.1 Develop a standard specification for a national CITES computer system suitable for tailoring by individual Parties

   2.2 Provide assistance and advice to Parties that wish to develop systems based on the standard specification

   2.3 Evaluate existing systems and identify suitability for use and support among other Parties

   2.4 Investigate the cost-effectiveness of developing and supporting a comprehensive off-the-shelf CITES-data-management system for use by national implementing agencies

3. *Cross-checking of permits and shipments*

   Issue: Cross-checking and validating documentation for permits and shipments requires well-ordered and accessible information. For export of Appendix I species, it requires validation between Parties. Moreover, the Secretariat plays a role in confirming the validity and authenticity of permits and certificates. Implementation and cost-effectiveness could probably be improved through better information handling to support these activities.

   Key activities:

   3.1 Identify the requirements of a secure computer system for cost-effective sharing of data relating to permits and shipments between Parties and with the Secretariat

   3.2 Develop a pilot implementation of such a permit-sharing computer system using available tools such as the Internet

   3.3 Dependent on evaluation of the previous activity, fully implement the system, involving Parties

4. *Identification of specimens*

   Issue: Identification of specimens in trade is key to the implementation of the Convention. Much material has

been developed specifically to aid officials in identification. Significant improvements are now possible in the formats and mechanisms for delivering this material cost-effectively to the places and people where it would have greatest impact.

Key activities:

4.1 Assess the costs and benefits of developing a computerized system (e.g. CD-ROM, on-line database) to enable officials to access identification materials for CITES specimens

4.2 Dependent on the previous activity, specify and build a prototype system that could fulfil these requirements and assess the budget for full implementation

4.3 Fully implement the identification system

5. *Scientific review and advice*

Issue: Much of the information that could assist Scientific Authorities in decision-making (for example, in making non-detriment findings) is widely scattered or inaccessible and is therefore not readily used. In addition, existing expertise could be drawn upon by Scientific Authorities to assist them if details of experts and information sources were more readily available.

Key activities:

5.1 Assess the data and information needs of Scientific Authorities, identifying existing information sources that could be used to supplement information already available through official channels

5.2 Establish a clearing house mechanism for information and skills appropriate to the work of Scientific Authorities.

6. *Delivering standard products to the Parties*

Issue: Parties share many information needs. These are not yet serviced in a co-ordinated way to ensure common access to standard documents and electronic versions.

Key activities:

6.1 Update and publish the Annotated CITES Appendices and Reservations following each meeting of the Conference of the Parties

6.2 Update and publish the Checklist of CITES species following each meeting of the Conference of the Parties

6.3 Co-ordinate the management of electronic copies of CITES-related documents

6.4 Provide wide access to all relevant materials by maintaining an up-to-date CITES Internet Web Site

6.5 Assess the needs of Parties for CITES information materials in electronic formats other than those available via the Internet (e.g. CD-ROM)

6.6 Dependent on the results of the previous activity, develop a prototype system to demonstrate what electronic CITES-materials could be provided to Parties and how (e.g. CD-ROM of CITES species, decisions, identification materials, etc.)

6.7 Dependent on an evaluation of the previous activity, develop and make available the CD-ROM (or other materials) to provide the required information to Parties

Budget

Implementation of the IMS will be divided into two phases. This will enable costs to be more clearly defined for those later activities that depend on the results of earlier ones. For this reason, Phase 1 is costed below, while Phase 2 is not.

Phase 1 (to be completed by the end of 1998) will involve:

– preparation of information management training materials and conduct of one regional workshop;

– for one CITES region, analysis of Parties' needs across a range of issues (standard CITES software, permit-data sharing system, identification support system, needs for scientific data and CITES information materials (*Note: the results of the analysis of the Parties' needs may indicate that some of these systems could be combined*);

– delivery of standard products to the Parties (Annotated Appendices, Checklist of CITES Species, CITES Web Site).

Phase 2 (starting 1999 and running for two years) will involve:

– establishment of a programme of regional workshops to cover all CITES regions;

– specification, development and delivery of a system or systems to fulfil the needs of Parties identified in Phase 1;

– maintenance of up-to-date standard products to support the Parties' implementation of CITES.

The total costs envisaged for Phase 1 are as follows:

Activity	Cost (USD)
Information management training: preparation of workshop materials and questionnaires	16,000
Information management: regional workshop and needs-analysis of national agencies (including participants' costs)	48,000
Delivery of standard products	64,000
Total	128,000

Part of the projected Phase 1 costs (for delivery of standard products: Annotated Appendices, Checklist of CITES Species, Web Site) have been identified and included in the CITES Trust Fund budget proposed for 1998-2000 (refer to document Doc. 10.13). If this budget is approved by the Conference of the Parties, a sum of about USD 64,000 will be required to undertake and complete Phase 1 of the IMS.

It is proposed that funding for Phase 2 be sought from a number of sources when a firm work programme has been established and associated costs have been calculated.