Background

From Protected Areas and the Conservation and Sustainable Use of Biological Diversity, (UNEP/CBD/AHTEG-PA/1/2): A “protected area” is an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. Main purposes include scientific research, wilderness protection, preservation of species and genetic diversity, protection of specific natural and cultural features, tourism and recreation, education, and maintenance of cultural and spiritual attributes. Current estimates indicate that approximately 10% of the world’s surface holds protected area status.

Key Issues for Biodiversity Information Networks

Difficulties in Classifying Protected Areas by Objective

The IUCN management categories (I-VI) are a widely accepted, standardized classification for protected areas, although many organizations have adopted modified versions based on their own conservation goals. While the IUCN categorization system has proven useful to countries establishing protected areas systems, there have been challenges in applying it on the ground. Some sites are very difficult to place in single categories, and problems arise when protected areas are categorized by parties remote from the site with insufficient information. And most problematic, protected areas can be misclassified because of differences between the legal designation and actual management on the ground. A project is underway at Cardiff University (UK) to examine these issues.

Prioritizing and Planning Protected Areas Networks

A number of priority-setting methods have been proposed and implemented over time, varying in scale from international, broad-brush approaches to detailed local plans. Geographic priorities can vary considerably depending on the criteria used for site selection. However, the underlying needs for biological information remain strikingly consistent. The most common biological criteria include richness of species or ecosystems, rarity, degree of endemism, threat, distinctiveness, representativeness, and importance to overall ecosystem function. Non-biological criteria include utility (for economic development or subsistence purposes) and feasibility (political, economic, institutional, etc.). Scientific criteria are a necessary starting point for setting protected areas priorities, but they are rarely the ending point.

Direct and Indirect Threats

Protected areas throughout the world are faced with a variety of threats to their ability to serve their original purpose. Direct threats include the removal of specific elements (species, cultural artifacts), overall impoverishment of the system ecology, major land conversion and degradation, and isolation due to landscape fragmentation and encroachment. Societal pressures can also lead to indirect threats such as inappropriate land use decisions, unclear legal status and resulting conflicts, weak and inconsistent enforcement of laws and regulations, policies that encourage unsustainable uses, rural poverty, and local economic needs.

Sample of Existing Initiatives

World Congress on Protected Areas

(http://iucn.org/themes/wcpa/wpc2003/index.htm)

The IUCN 5th World Congress on Protected Areas (8-17 Sept 2003 in Durban, South Africa), or IUCN World Parks Congress as it has become known, is a 10 yearly event that provides the major global forum for setting the agenda for protected areas. Previous Congresses have had a tremendous impact in assisting national governments to create new protected areas, and direct more resources towards biodiversity conservation. Two key outputs of this event will be a Global Report Card for protected areas that will evaluate progress over the last 10 years, make recommendations for improving information systems, and identify which ecosystems are best protected by the current network, and which are left out; and the delivery of a Toolbox for Global Action comprised of tools, policies and recommendations designed for use by professionals and decision makers. Among the tools offered is a methodology for developing a national network of protected areas, with an emphasis on representativeness and opportunities to link protected areas into a wider geographic network.
World Database on Protected Areas

The most comprehensive dataset on protected areas—the World Database on Protected Areas—is managed by the UNEP-World Conservation Monitoring Centre (WCMC). In recent years, a consortium of governments and NGOs has pooled their knowledge to support improvements to this database, which now contains approximately 100,000 protected area records. At the World Congress on Protected Areas in 2003, this database will be officially moved into the public domain.

The Ramsar Convention on Wetlands

This international convention has focused on identifying sites of particular international importance to governments, with a focus on a specific ecosystem type. Priority wetlands must be representative, rare or unique examples of natural or near-natural types, especially those that serve as habitat for endangered species, threatened ecological communities, or contain areas that are critical to the life cycles of migratory birds. Currently 1267 sites including 107 million hectares have been designated as Wetlands of International Importance.

Regional Initiatives

Regional initiatives such as the North American Biodiversity Information Network (NABIN, a mechanism of the Commission for Environmental Cooperation under NAFTA) anticipate working with institutions in the region to develop methods for integrating protected areas information that is more detailed than that contained in more global databases.

Strategies Employed by Conservation Organizations

At the global level, the most well-known approach is the “hotspots” and “megadiversity” framework developed by Conservation International. This approach uses endemism and threat as its most important priorities, leading to 25 hotspots that contain the entire ranges of 44% of the world’s plants and 35% of the world’s terrestrial vertebrates in just 1.4% of the planet’s land area. World Wildlife Fund’s “Global 200” initiative focuses more on representativeness, using ecoregions as the unit of analysis. Criteria for selection are applied within each major habitat type across ecoregions (to ensure representativeness), and include species richness, endemism, higher taxonomic uniqueness, unusual ecological or evolutionary phenomena, and global rarity of the major habitat type. The most technically detailed and field-tested methodology for national-level planning is the Ecoregional Assessment methodology pioneered by The Nature Conservancy in cooperation with NatureServe. This methodology uses the ecoregion as the unit of analysis, with the primary output being a “portfolio” or network of lands and waters that conserve all of the elements of biological diversity—based on predefined, ecoregion-specific goals.

Guidance for the Discussion Group

Opportunities for IABIN / CHM Joint Work Plan

What would be the most urgent and highest impact activities that could be undertaken by the countries and non-governmental organizations of the Americas to address:

Scientific Cooperation

- Training and capacity building needs related to protected areas planning methodologies
- Gathering and documenting threats to existing protected areas

Technical Cooperation

- Improvements to global protected areas information systems—in structure, standardization of content, and increased interoperability with regional initiatives
- Development of metadata for protected areas in the region

Institutional Cooperation

- Increased coordination between sectors including NGOs, universities, collections and governments in the implementation of national protected areas planning methodologies