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# Biodiversity Information Management- Legal Aspects



**N****A**TURAL resources routinely inventoried and monitored include those with direct economic significance, such as minerals, timber, land and soil, agriculture production and water resources. Biological and genetic resources are increasingly viewed as natural resources with potential economic value. In addition, such resources play a key role in providing ecosystem services – maintaining the air, water, soil climate and other environmental conditions essential to human survival.

A wide variety of resources are required for the objective assessment of the extent of biodiversity and the realization of its potential both to benefit humankind and to contribute to the well being of the planet. Biodiversity information refers to global biodiversity data that have been organized, integrated and to some extent analyzed. The development and use of biodiversity

information has not been a priority of governments and most efforts in this area have been undertaken by the scientific research community or to a lesser degree, by the non-governmental sector. Broadening the use of biodiversity information from these to other sections of society is a principal challenge.

Use of biodiversity information generally depends upon specific motivations. Three principle categories of motivations include:

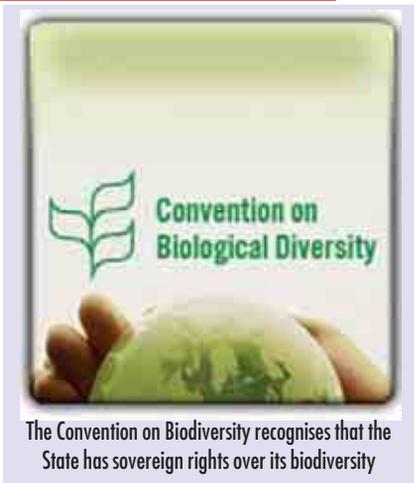
**1. Public policy motivations:** These motivations primarily involve compliance with laws, rules, regulations or treaties. They derive from all levels of human activities, from village-established rules, through state- or national-level laws and policies to international treaties.

**2. Private sector motivations:** These motivations relate to the need for biodiversity information to advance commercial interests. Companies involved in plant breeding, ecotourism, biotechnology or natural resource management may have a vested economic interest in receiving and applying such information. In addition, the private sector is increasingly seeking

biodiversity information to avoid potential environmental problems or to develop contingency plans.

**3. Public interest and cultural motivations:** These include efforts by both governmental and non-governmental institutions, as well as individuals, to apply biodiversity information in ways that advance the conservation and sustainable development of natural resources. Public

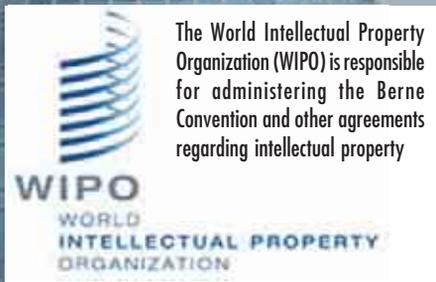
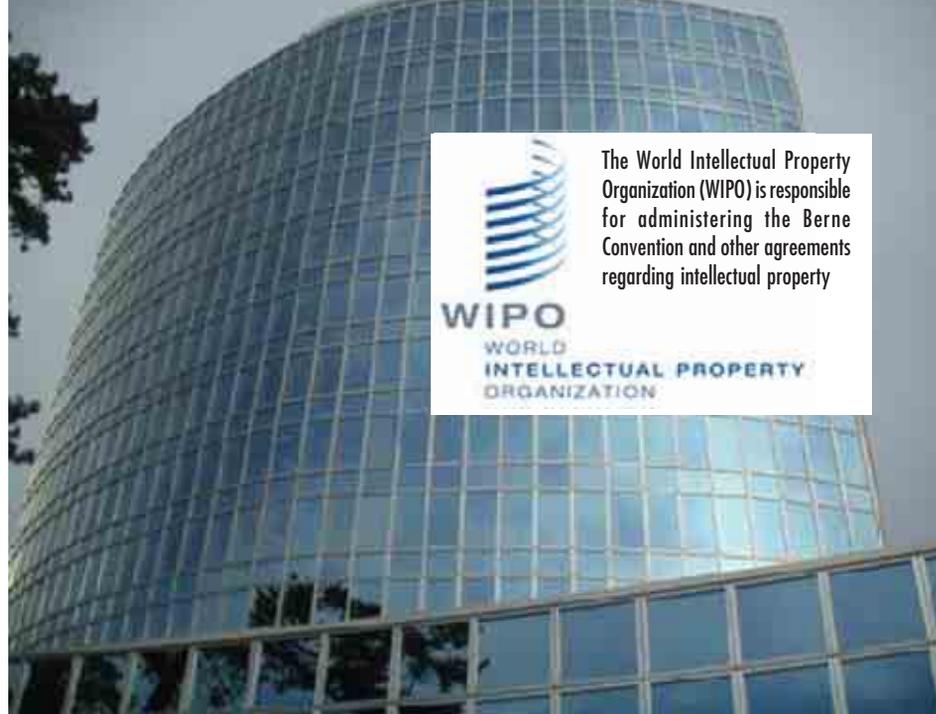




interest incentives act as primary motivators for biodiversity information management, which takes the form of encouraging proactive efforts for environmental protection, such as establishment and management of protected areas. Access to environmental information has also proved to be a powerful force for empowering local people to take an interest in and feel responsible for their biodiversity resources. Cultural motivations including scholarly pursuits and incentives help to document knowledge about local plant and animal species and are responsible for the vast amount of biodiversity information. In addition to being the major source for exploration and information generation, these academic and scholarly endeavours also constitute a major incentive for the use of existing information.

Global Biodiversity assessment requires the collection of biodiversity information before decisions affecting biodiversity are made. Nation states are giving strong incentives to inventory and monitor the status of their biodiversity resources and to use this information for the intelligent conservation, management and use of these resources. The appropriate use of biodiversity information is also required by national and international laws that form the mandates for international and national agreements.

Legal incentives are the most powerful drivers of biodiversity information and management. The major legal issues surrounding biodiversity information management include intellectual property rights, freedom of information and public databases, privacy, legal liability and authentication and admissibility of data. Several national and international agreements impose obligations on



governments and private organizations in the area of biodiversity information management. International law has both public and private dimensions.

The public domain regulates the activities and relationships of nation states and intergovernmental organizations. The sources of public international law are: international conventions and international customs.

International conventions or treaties are not sources of law, but sources of rights and obligations of the signatory parties. The treaties that are most directly relevant to biodiversity information management and conservation are the Convention on Biological Diversity, particularly Articles 15, 16, 19, 20 and 21 (UNEP 1992), and the existing system of international intellectual property law, which is composed of several treaties that provide nations with legal mechanisms for protecting, under their own laws, each other's copyrighted works and similar materials.

The treaty that is most applicable to the legal protection and control of biodiversity information is the Berne Convention for the Protection of Literary and Artistic Works. The intergovernmental organization responsible for administering this convention and other agreements regarding intellectual property is the World Intellectual Property Organization (WIPO).

Several additional treaties relevant to biodiversity information management include United Nations Charter (UN 1948), which provides the broad institutional and legal context within which the Convention on Biological Diversity is framed, and the

Uruguay Round of the General Agreement on Trade and Tariffs (GATT, 1993), the principal legal forum for resolving trade disputes, including those concerning biological resources. The Convention on International Trade in Endangered Species (CITES 1973) is the major international agreement prohibiting trade in endangered species. It also requires national governments to collect, manage and communicate biodiversity information.

In addition to treaties, executive agreements—also referred to as Memoranda of Understanding (MOUs)—between government agencies of two or more nations are an important source of specific rights and obligations. Although these agreements do not have the legal binding force of treaties, they do reflect high-level policy decisions of their participant's executive branches.

International custom derives from the general practices of nation states accepted as law. Most nations have environmental and natural resource laws and regulations that seek to balance competing interests such as environmental protection, economic exploitation, public health and safety and national security. Together, these national laws contribute to the evolution of international custom. These resolutions with respect to biodiversity information and management reflect an emerging global environmental ethic and incipient international environmental law that, over time, will likely achieve the status of customary international law.

The Convention on Biodiversity recognises that the State has sovereign

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rights over its biodiversity. The question today is should this be the sovereign right of the State or the property of the private owner of the land where such resources occur or of the community that lives amidst such resources or of a combination of all these? These aspects are yet to be answered. These questions become particularly more critical related to land ownership in India.

A substantial part of the biodiversity in India exists in the "Protected Areas" declared under the Wild Life (Protection) Act, 1972, or in the Reserved and Protected Forests under the Indian Forests Act, 1927. The jurisdiction over

these areas vests with the State Forest Department. Neither of these laws addresses the issue of accessing the genetic resources within their jurisdiction. In general, however, the Indian Forests Act, 1927 states that access to the forest resources can be had with the written permission of the Forest Officer or by any rule made by the State Government.

The Wild Life Protection Act, 1972 states that plants may be removed from the area under their jurisdiction only with the permission of the Chief Wildlife Warden under the circumstances specified in the Act. Such circumstances are generally collection of such plants for education and research purposes, or for management purposes such as fire control. Access to and collection of the resources for commercial purposes is therefore not contemplated under the Wild Life Protection Act, 1972.

Both the Indian Forests Act, 1927 and the Wild Life Protection Act, 1972 also provide for the settlement and recognition of the rights of the people dependent on the resources in areas within their jurisdiction. Where such rights are recognised, should such people have a

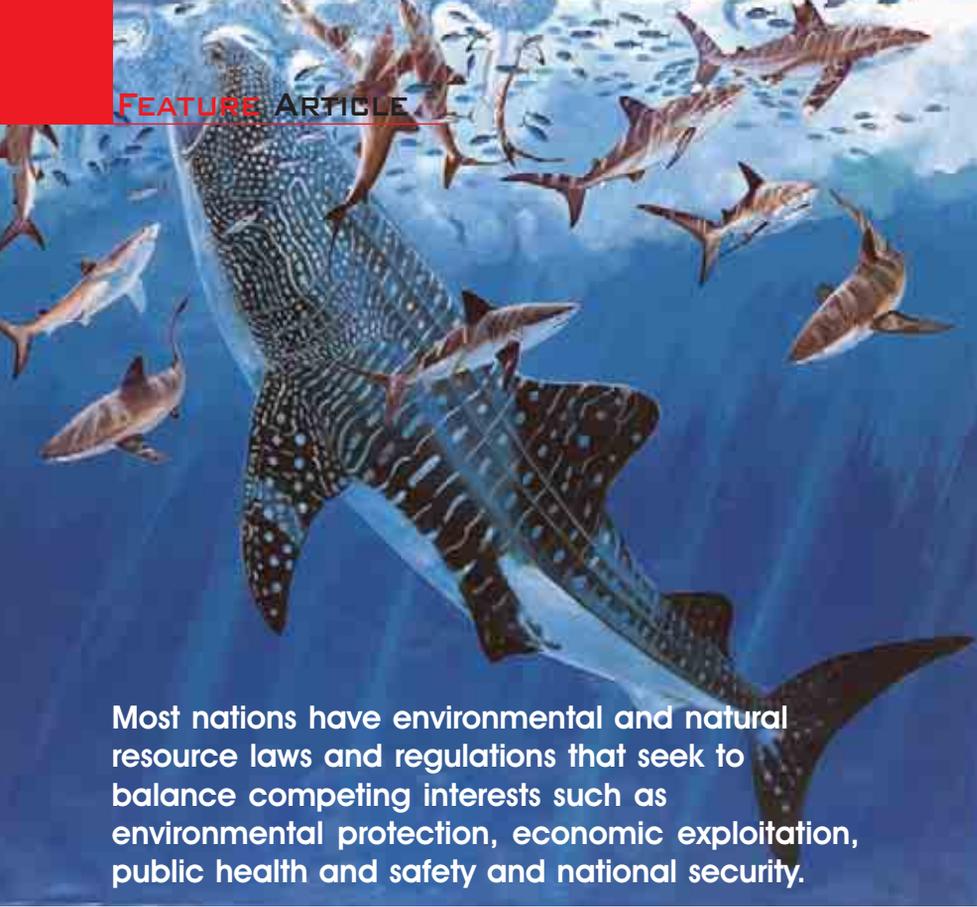
say in access to such resources by 'outside' interests? Where such rights of communities to collect and use a resource were traditionally and customarily recognised but not so by existing provisions of law, what would be the status of such rights? Who should decide on the access when the knowledge of the users of the biological resource in a forest land is the basis on which physical access to the resource is sought?

The problem with regard to access to the resource in all the scenarios contemplated above is complex because access to the physical resource is more often than not, not sought at random. The reason and basis for the access in the first place is the existing knowledge and information regarding the resource. In the absence of any legal forms to protect that knowledge, the question that really has to be addressed is on what basis should access be regulated?

The proposed law relating to biodiversity drafted by the Ministry of Environment and Forests works on CBD's premise that the State has the sovereign right over its genetic resources. The law proposes to establish authorities at the



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national, state and local levels to deal with the issues of access to genetic resources. However, the issues with regard to 'ownership', jurisdiction, and inter-play with existing laws are yet to be addressed and resolved. For instance, can the National Authority permit access to resources within the jurisdiction of a national park or sanctuary, and can it permit commercialisation of the same?

The rapid rise in the use of national and international electronic networks has raised new issues regarding the protection of digital data. Biodiversity information requires changes to the Berne Convention and other intellectual property agreements under the WIPO umbrella. Numerical databases present a special challenge. The huge increase in the amount of observational environmental data – brought about by highly sophisticated sensing instruments and facilitated by continuous advances in computer and communication technologies – has created pressure to develop and harmonize new legal constructs for their effective management.

On the other hand, public interest in encouraging the broadest possible access to information on biodiversity and other environmental problems has led to the treatment of numerical databases as

public goods, unencumbered by legal restrictions on their dissemination and use. Customary law that has arisen in the area of international trade will also be an important source of law regarding business aspects of biodiversity data and information. Although the GATT provides the principal dispute-resolution mechanism for nations that are party to it, most of them have separate bilateral or regional trade agreements regulating specific commercial transactions, including those involving biodiversity resources data and information.

Much of the research that will generate biodiversity information in the future will be conducted by private-sector parties, researchers employed by private universities, corporations, and not-for-profit, non-governmental organizations. These parties will also become the custodians or owners of that information and will control its access and distribution. How private parties manage biodiversity information will be determined in part by the public laws outlined above as well as by private contracts. Disputes among these parties are generally settled in formal legal proceedings that will eventually result in a body of legal precedents spanning multiple jurisdictions.

Although each private contract regarding biodiversity information will apply



only to its signatory parties, some innovative contracts are likely to serve as models. A model between Merck and Company, Inc. and Costa Rica's Instituto Nacional de Biodiversidad (INBio), signed in 1991, has already been proposed for how the biotechnology industry and nations with diverse biological resources might co-operate under the framework of the Convention on Biological Diversity.

While access to information is generally important to biodiversity conservation and management, there must be some restrictions and the information may be governed by statute. The breadth of information needed for biodiversity conservation and management means that privacy conflicts are bound to arise. Many corporations and individuals may resist the collection of information by outsiders on private land, yet collecting such information may be essential to the effective management of biodiversity found there and therefore be required by law.

The goal of biodiversity information management is to strike optimal balance in conserving the diversity of nature and advancing human sustainable living. To effect sustainable development, governments, citizens, international organizations and businesses will have to co-operate in finding ways to support the essential processes of the planet, an effort that depends on maintaining biological diversity.

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