

Vincente Sánchez / Calestous Juma (eds.)

Biodiplomacy – Genetic Resources and International Relations

ACTS Press, Nairobi, 1994, 370 pp.¹

„Biodiplomacy“ is the outcome of a workshop on biological diversity, „National interests and global imperatives“, held by the African Centre for Technology Studies from 26-29 January 1993 at the headquarters of the United Nations Environment Programme in Nairobi. It contains a dense compilation of papers analysing the crucial issues of the Convention on Biological Diversity. The Convention was signed at the Rio Earth Summit of June 1992 and entered into force on 29 December 1993. Up to 30 September 1994, 67 States had ratified the Convention.

The foreword by *Wolfgang Burhenne* is followed by an introduction by the editors emphasizing the interaction of the conservation of biological diversity with technology, as well as rules of access to sovereign resources and concerns over international equity. The object of biodiplomacy is to reach agreement on matters related to biological resources and the essential ecological services rendered by ecosystems. According to the editors the prevalent paradigms of development have to be replaced by an approach building on the principle of sustainability and a shift towards a new world-view. The book concentrates on the issues related to this goal and on those not satisfactorily resolved by the Convention.

The 16 articles are divided into five parts. Each part deals with one of the crucial issues covered by the Convention on Biological Diversity, i.e. national sovereignty and biological resources, access to genetic resources and indigenous knowledge, access to and transfer of technology, sharing the benefits of biotechnology and finally implementation measures.

The first part presents an overview of the crucial issues of the Convention and the basic principles of international environmental law and how they relate to genetic resources. Biodiversity is the variety of living organisms at three levels, genetic, species and ecosystem diversity. It is a source of raw materials for agriculture, medical and industrial innovation.

The first chapter describes the central aspects of the negotiations of the Convention on Biological Diversity and the final outcome. The objectives of the Convention are to conserve biodiversity, to use it sustainably and to share the benefits arising out of the utilization of genetic resources in a fair and equitable way, including the access to genetic resources and the appropriate transfer and funding. The Convention is criticised for not adequately protecting the rights of indigenous peoples and local communities as the custodians of genetic resources and not tackling the major causes of the destruction of biodiversity. The provisions of access to genetic resources do not apply to resources in *ex situ* conditions collected before the Convention entered into force. There needs to be more clarification on intellectual property rights, biotechnology and the funding mechanisms.

¹ Available for US \$ 20 from: African Centre for Technology Studies, P.O. Box 45917, Nairobi, Kenya, Fax: (+254-2) 56 99 89.

The chapter „International Environmental Law and National Interests“ has a slightly misleading title as it gives an overview of existing public international environmental law, from customary international law and international cases to the existing 132 treaties in the field of the environment. Yet, these treaties are usually only responses to some specific problems. In contrary, the Convention provides a broad and comprehensive framework for specific and detailed protocols and regional agreements for implementation. The article points out that international treaties are often not implemented and urges lawyers to undertake as early as possible studies at a national level to ascertain the technical and economic factors which hinder their implementation.

The third chapter of Part I analyses the Convention from the perspective of an exchange between „the North and the South“ and examines the consequences of the concept of permanent sovereignty over genetic resources. The approach of treating genetic resources as a „common heritage of humankind“ has been abandoned. It has been replaced by one that asserts national sovereignty over genetic resources but recognizes the international implications of such assertions. The result is a recognition that the fate of the world's biological resources is a „common concern of humankind“. From an exchange-viewpoint, the interest of the North is to conserve biodiversity and the South has put three demands for their conservation efforts: transfer of finances, technology from the North and the recognition of national sovereignty over genetic resources as a prerequisite to secure the first two. To benefit from the national sovereignty over its genetic resources, a country must meet several conditions. National legislation is needed in addition to the Convention that provides a framework for the transfer of germplasm. Apart from the genetic resources having a transaction value, a country needs administrative, technological and scientific capacity. The enforcement capacity is one of the most difficult problems for implementing the Conventions regimes. Instead of trying to prevent illegitimate access to the germplasm – an effective control is hard to imagine – a requirement of information about the germplasms origin could be put on all marketing of biologically based products. Another solution may be a requirement to relay information on any applications for patents and patent descriptions. A protocol to the Convention could impose such requirements. Between countries of the South a different agreement may be adequate. There is some criticism of the concept of national sovereignty. It does not consider the interests of local communities and indigenous people. Although the Convention recognizes the contributions of local communities in its Preamble, Art. 8 (j) and 10 (c), it does not recognize community property rights or farmers' rights and their right to compensation. The concept of sovereignty strengthens the control at the State level in contrast to the local and indigenous level. The author requires participation of local actors on access and utilization of genetic resources. Concerning transfer of technology, barriers are intellectual property rights, the costs connected to the purchase of equipment and the lack of resources to introduce and utilize new technology. They could be overcome through favourable tradings terms, financial assistance, and trading good in mutual agreements of access to genetic resources.

The article is not clear whether intellectual property rights run counter to or are supportive of the objectives of the Convention.

In „Beyond the Convention on Biological Diversity: A view from India“, the author, *Ashish Kothari*, describes the biological and legal situation in India and links it with the Convention. He describes its gaps and starting points for further national and international action. The underlying causes of the loss of biodiversity – the use of biological resources for the benefit of a minority elite in poor nations and for the wasteful consumption patterns of the North – are not sufficiently dealt with in the Convention. Kothari asks for several protocols necessary under the Convention: to regulate access to international genebanks prior to the Convention, to prohibit the extension of intellectual property rights to life forms, and to regulate biosafety. He pleads for a reward system for local communities and farmers for innovations made over centuries and for their preservation efforts. Furthermore Kothari complains that the erosion of the gene pool of cultivated and domesticated animals and plants is neglected by the Convention, which focuses on wildlife. The funding mechanism of the Convention must be democratic and transparent, as required by Art. 21. In the prevailing set up, the flow of finances and technology to the South will not necessarily enhance biodiversity conservation. The article is a well-balanced analysis of what is still needed on the national and international level to improve biodiversity conservation, to make sure that relevant technology is exchanged, and to develop sound national legislation.

Starting from a political analysis of implications of the US ‘No’ in Rio – being now historical as the Clinton administration signed in June 1993 – the last chapter of Part I reflects on the shortcomings of the Global Environment Facility (GEF) and the implications of worldwide expanding intellectual property rights (IPR) system on the Convention and vice versa. The question is becoming more and more important, especially with the Trade Related Intellectual Property Rights (TRIPS) agreement of the GATT Uruguay Round.

Part II focuses on access to genetic resources and indigenous knowledge. Biodiversity and its conservation cannot be separated from culture. So far there are no rights to protect innovations and knowledge of local communities and indigenous peoples or mechanisms for their compensation. Existing IPR systems are only recompensing innovations from the formal sector, very often based on knowledge gained from local and indigenous communities.

In „Farmers’ rights and the Convention on Biological Diversity“, *Vandana Shiva* criticises the existing regimes of IPR. She analyses the underlying principles of these regimes, namely property, profit and trade relations, and questions their effects on societies and the generation of knowledge in the Third World. The concept on farmers’ rights must be made operational. Those who conserve biodiversity and produce sustainably have to participate in making decisions.

The seventh chapter compiles and examines international agreements and activities which protect indigenous people, their knowledge and culture. The article reflects on the problems and desirability of the application of the existing and the development of a new

regime to protect the knowledge of local and indigenous people. The author warns of the Human Genome Project, the consequences of green consumerism, commoditization of knowledge and resources, and intellectual dismemberment from spiritual, cultural, and physical property.

Part II ends with a legal analysis of Art. 15 of the Convention, which sets up a frame work on the access to genetic resources focusing on the 'prior informed consent' mechanism provided by Art. 15 para. 5. The article proposes model elements for national legislation for provider and user countries of genetic resources.

The three chapters of Part III „Access to and transfer of technology“, examine questions of transfer of technology and IPR systems, the impact of the latter on the former and the Convention on Biological Diversity. The articles assess the role and meaning of IPR systems for the Convention differently and come to different conclusions.

Chapter 9, „Technology transfer and environment“, describes the theoretical background of IPR and its different types – patents, trade secrets and plant breeders rights. There are major differences between the Indian IPR system and the systems of OECD countries, the former being considered as a model incorporating the typical concerns of developing countries. After a description of the various types and modes of technology transfer, the authors try – in an in-depth analysis of transfer of technology within the framework of the Convention – to elaborate the trade-off between access to genetic resources and transfer of technology. They focus on possible stratagems and difficulties for developing countries in negotiating technology transfer norms. The article illustrates very clearly the problems in implementing this part of the Convention.

While the previous Chapter concentrates the exchange between biotechnology and genetic resources and the implications of intellectual property rights, Chapter 10 questions this approach. *Calestous Juma* and *Edith Mnene* argue that most of the biotechnology needed by developing countries are available in the public domain and are based on conventional practices. Rather than to ask for production capacity, developing countries should focus on accumulating technological capacity, i.e. the ability to generate and manage technical change, as biotechnology is a knowledge-intensive sector.

The last chapter of Part III examines the relevance of IPR systems and their institutions to the articles of the Convention on access to genetic resources, transfer of technology, exchange of information, technical and scientific cooperation, handling of biotechnology and distribution of its benefits. For the author, IPR are an instrument of cooperation between developed and developing countries and a means of achieving the ultimate aim of the Convention, the conservation of biodiversity.

Part IV, "Sharing the benefits of biotechnology", explores ways of valuing biodiversity and forging partnerships that can facilitate sharing of the benefits of biotechnology. "Valuing biodiversity: The scope and limitations of economic analysis" describes the rationale for valuing biodiversity, vacillating between two extreme views, the utilitarian one (species as commodity) and the ecological one (species with intrinsic value). Quantification – the economic value approach) – can help to make choices between competing or alternative

policies with different environmental impacts. The economic valuation consists of two processes: demonstration and appropriation. There are various valuation techniques to demonstrate and measure the value of biodiversity and several prerequisites to the use of this value. The example of valuing medicinal plants emphasizes the cultural determinants of management and the importance of property rights for conservation policies to be effective.

The answer to the question in the Chapter's title "Technology and genetic resources: Is mutually beneficial access still possible?" is that although the Convention did not clearly result in a trade-off between access to genetic resources and technology transfer, it establishes a clear link. This link can be exploited to the benefit of gene-rich and technology-rich countries, for example through technological collaboration and knowledge-sharing agreements.

Finally, Part IV presents a specific case study, the Merck-INBio agreement which outlines some features of a partnership between a developing country institution and a multi-national pharmaceutical firm. The article makes suggestions on effective and equitable biodiversity prospecting programs and shows that there are prospects for creating innovative institutional arrangements that can facilitate the sharing of the benefits of biotechnology. Unfortunately, a discussion of the severe criticism attracted by the Merck-INBio deal is missing.

The last part presents ways in which the Convention can be implemented. The penultimate chapter reviews the financial negotiations at UNCED, discusses the function of the GEF and its role as a financing mechanism for biodiversity conservation. It analyses the financial implications of national sovereignty over genetic resources and the bargaining positions of suppliers and users of genetic resources. Finally, options for operating a system of compensation for access to and use of genetic resources are discussed ways as well as means of biotechnology transfer, with a special focus on the role of the International Agricultural Research Centres.

The last chapter analyses the treaties concerned with biodiversity and environmental issues before 1992 and their relationship to the Convention. It outlines elements of a model law for national legislation implementing the Convention in the areas of research, and *in situ* and *ex situ* conservation, and the necessary conditions to implement them. Yet the best domestic law will be useless if there is no international cooperation to resolve the scourge of poverty.

The volume ends with a conclusion by the editors, summarizing the complex issues of the regime of biodiplomacy and the actions to be taken to conserve biodiversity as the real basis for sustainable development.

Due to the nature of the volume – a compilation of independent articles of different authors – there is inevitably overlapping of subject matter and repetition of arguments. The different conclusions drawn from the analysis are sometimes contradictory. Yet this is just a reflection of the actual state of international discussions on the complex issues dealt with by the Convention.

Some authors are pure, academic scholars, others have been very closely involved in the negotiations of the Convention and are now participating in the implementation process; some are both. For example *Vincente Sánchez*, one of the editors, was the Chairman of the Intergovernmental Negotiating Committee for the Convention and is now the President of the Bureau of the Intergovernmental Committee preparing the first Conference of the Parties. *Veit Koester*, co-author of the chapter on access to genetic resources, chaired Working Group II during the negotiation process, which dealt *inter alia* with access to biodiversity and related technologies. *Ashish Kothari* from the Indian Institute of Public Administration is following the international process on biological diversity from a scientific as well as from a political point of view, presenting the so called "third world perspective" as an NGO-representative at the negotiations.

For anyone who wants to become familiar with the political and legal problems at stake in implementing the Convention on Biological Diversity, this book is a valuable, even indispensable contribution. It is one of the few volumes addressing the abundant problems of the Convention, reflects the wide-ranging debate in the search for solutions to these problems and provides proposals for their solution.

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Erik Franckx

Maritime Claims in the Arctic – Canadian and Russian Perspectives

Martinus Nijhoff Publishers, Dordrecht, 1993, 330 S., £ 95.00

Wenn die internationale Presse über Umweltrisiken in der Arktis berichtet, dann geht es in der Regel um Ölunfälle im hohen Norden Rußlands, um versunkenen Nuklearschrott und andere Schreckensmeldungen. Die geplante Einrichtung von arktischen Schiffahrtswegen auf der Nord-Ostpassage oder der Nord-Westpassage ist nur wenigen Beobachtern bekannt.

Erik Franckx hat mit dieser überarbeiteten Ph.D.-Dissertation ein "vernachlässigtes" regionales Meer seerechtlich dargestellt und damit einen wertvollen Beitrag zur Aktualisierung des Seerechts zum Zeitpunkt des Inkrafttretens des neuen UN-Seerechtsübereinkommens geleistet.

Das Buch ist nicht nur - wie der Titel vermuten lässt - eine rechtsvergleichende Darstellung der kanadischen und russischen Gebietsansprüche auf die Wasser- und Eisflächen der Arktis, sondern eine schiffahrtsrechtliche Analyse der beiden großen arktischen Seewege in den Pazifischen Ozean. Die Rechtsfragen anderer Nutzungskonflikte (Ölgewinnung, Meeresforschung, militärische Fragen) werden leider nur knapp behandelt, aber in dem ungewöhnlich umfangreichen Fußnotenapparat (ein Drittel des Buches nehmen die Fußnoten ein) ausreichend berücksichtigt.