

## /BOOK REVIEW

# A Win-Win Scenario for Natural Resource Access

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The value of *Biodiversity Prospecting* lies in the personal experiences of its authors, many of whom helped develop the landmark agreement between Merck & Co. (Rahway, NJ) and Instituto Nacional de Biodiversidad (INBio, Costa Rica) that simultaneously encourages the exploration of natural resources and promotes their conservation. World Resources Institute has published a book that covers many aspects of the Merck-INBio agreement while also placing it in a larger perspective.

The Costa Rican government created the nonprofit organization called INBio to determine the degree of biodiversity in Costa Rica and to promote the nondestructive use of the country's biodiversity resources. In furtherance of such goals, INBio negotiated a contract with Merck. Although the Merck-INBio agreement shows how pharmaceutical development and conservation can coexist, the authors emphasize that the agreement should be thought of as a pilot agreement rather than a model one.

Prior to this agreement, both Merck and INBio faced the unenviable task of valuing biodiversity as a raw material. Any such value is central to a successful collaboration between countries rich in biodiversity and those wishing access to such resources. INBio was able to provide potential collaborators a large number of species within a small area, along with a stable democracy and an educated population, factors that added to the value of the agreement. Generally, the value of naturally occurring chemicals to an end user increases if additional information is made available by the supplier of the natural resources. For example, if the collector is able to supply ethnobotanical data, a higher royalty may be charged.

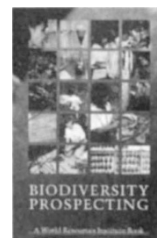
While the royalty agreement between Merck and INBio remains confidential, the authors note that estimates range from 1-40 percent, levels some commentators have criticized as meager. Whatever the royalty level is, the Merck-INBio agreement has several unique features that should be considered. Merck paid INBio over \$1,000,000 up front, an amount that Sarah Laird, the author of the chapter on contracts for biodiversity prospecting, suggests is unlikely to be matched by other pharmaceutical companies in the future. This payment helped INBio expand its training of local collectors and to purchase equipment for an

extraction laboratory. By providing an upfront payment, Merck increases the risk of its investment, as there is no guarantee that Costa Rica's natural resources will produce a commercial product, but by investing in the training of local scientists and the research infrastructure within Costa Rica, Merck has improved not only the local community but also its chances of discovering useful natural products. Merck's use of an upfront payment illustrates the potential for arriving at an agreement that benefits both sides; negotiations for access to natural resources need not be zero sum negotiations. An example of a model contract can be found in one of the excellent appendixes to this book. In a field as young as biodiversity prospecting, a model contract is particularly helpful and should provide future parties with a checklist for prospecting negotiations.

Any agreement pertaining to access to natural resources must consider the available intellectual property rights. *Biodiversity Prospecting* provides a readable introduction to these rights. A chapter by Michael Gollin reviews intellectual property regimes such as patent and trade secret protection and discusses proposed regimes for biodiversity. In the absence of direct intellectual property protection, the Costa Rican government has secured property rights by regulating access to its biodiversity. Since the Merck-INBio agreement, the United States has signed the Convention on Biodiversity, which addresses intellectual property rights directly and may provide a framework for future agreements. The Convention is reprinted with commentary in another useful appendix.

Although the Merck-INBio agreement is the focus of the book, the authors also draw examples from elsewhere. Special consideration is given to techniques for training and retaining workforces. INBio, for example, has initiated a program to train local parataxonomists to carry out its biodiversity survey. Unfortunately, *Biodiversity Prospecting* does not include a section written from an industrial perspective. A bibliography at the end of each chapter partially compensates for this deficiency. Readers will need to use these bibliographies to obtain a fuller perspective; for example, those requiring detailed information on why INBio chose to approach Merck or how Merck may use its expertise to help Costa Rica develop a pharmaceutical industry will have to use the bibliographies extensively.

*Biodiversity Prospecting* will appeal to a wide range of readers. Environmental, biotechnology, and pharmaceutical professionals, legislators, policy makers, and those interested in intellectual property rights will all gain insight by reading this book. ///



*Biodiversity Prospecting: Using Genetic Resources for Sustainable Development*, edited volume published by the World Resources Institute, INBio, the Rainforest Alliance, and the African Centre for Technology Studies. Available from WRI Publications, Hampden Station, Baltimore, 1993, \$29.95.

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