

1995

Roundtable Discussion

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Roundtable Discussion

Saturday, January 21, 1995
Vanderbilt University School of Law
Nashville, Tennessee

The Symposium panelists participating in this discussion included: Mr. Edgar J. Asebey, Professor Jonathan I. Charney, Professor Christopher C. Joyner, Ms. Lee A. Kimball, and Professor Catherine Tinker.*

DANIEL W. SIMCOX:** Assume the United States has become a party to the United Nations Convention on Biological Diversity¹ (Biodiversity Convention or Convention) and Speaker of the House Newt Gingrich calls you in and asks you, "What does this Convention mean? I do not quite understand it. What obligations and what opportunities does it pose for the United States? While the Senate heard considerable testimony before ratifying this Convention, I would like to know specifically what obligations this Convention imposes on the United States."²

PROFESSOR JOYNER: First of all, in terms of the Convention's jurisdictional scope, I would explain to Mr. Gingrich that the United States and its territories would be bound under this Convention. Species in the United States and its territories, including its territorial sea and exclusive economic zones, would be protected under the Biodiversity Convention from human-made injury and from unnatural species harm. Under the Convention, it would be the responsibility of the United States government to implement legislation that would protect those species from unwarranted intrusion by human-made influence. The United States would have the responsibility to enforce those

* Mr. Asebey is President, CEO, and founder of Andes Pharmaceuticals, Inc. Professor Charney is a Professor of Law at Vanderbilt University School of Law. Professor Joyner is a Professor of International Law with the Department of Government at Georgetown University. Ms. Kimball is a consultant in Treaty Development and International Institutions. Professor Tinker is an Associate Professor of Law at Chapman University School of Law.

** Mr. Simcox was the 1994-1995 Editor-in-Chief of the *Vanderbilt Journal of Transnational Law* and served as moderator for this discussion.

1. Convention on Biological Diversity, *opened for signature* June 5, 1992, 31 I.L.M. 818 (entered into force Dec. 29, 1993) [hereinafter Biodiversity Convention].

2. As of the date of the Symposium, the Senate had not ratified the Convention.

laws on its nationals in the United States, as well as on vessels traveling outside its borders that are registered in the United States. Moreover, other conventions related to biodiversity would provide additional obligations upon the United States.

Ultimately, the theme that I would emphasize to Mr. Gingrich is that the Biodiversity Convention would serve the best interests of the United States. By becoming a party to the Biodiversity Convention, the United States would become an important symbol to the rest of the world. It would join a large majority of states that have already become parties to it. To make this Convention work would require the commitment, enforcement, and due diligence of U.S. government agencies.

PROFESSOR TINKER: Considering my questioner, I would not disagree with what Professor Joyner said, but would change the emphasis of my presentation. I would talk about the opportunities presented by the Biodiversity Convention. I would emphasize that the Convention secures rights for our biotechnology and pharmaceutical companies to access genetic resources in developing states. Securing access to these raw materials from which companies may produce future products is important to guarantee future U.S. profits.

MR. SIMCOX: However, before we became a party to this Convention our pharmaceutical companies were happy and now, from what I understand, most of our pharmaceutical companies are concerned.

PROFESSOR TINKER: Well, actually, it is true that many U.S. biotech industries and their lobbying groups have supported the Biodiversity Convention. If you review the U.S. Senate hearings from April 1994,³ you will find support for this Convention from biotechnology industry groups that support U.S. ratification of the Biodiversity Convention because they need raw materials for their future growth.

If the United States does not ratify the Convention, it will face retaliation and U.S. companies will not be able to compete in the international market. For example, after the United States refused to sign the Convention in 1992, Venezuela barred U.S. companies from engaging in further biodiversity prospecting in the rain forest in Venezuela. That is pretty serious retaliation against U.S. companies that need to be on the cutting edge to compete and guarantee prosperity in the future.

MS. KIMBALL: I think I would agree very much with the approach taken by Professor Tinker and add that U.S. companies

3. The Convention on Biological Diversity (Treaty Doc. 103-20): Hearing Before the Committee on Foreign Relations, 103rd Cong., 2nd Sess. (1994).

need the kind of stable investment climate that the Biodiversity Convention will establish in developing countries.

We talked quite a bit yesterday in the panel discussion about how conservation is moving from a species-specific approach to a different, habitat-oriented approach. The Biodiversity Convention provides the United States with an opportunity to look at its own conservation laws and maybe move away from a species-specific approach to more of a habitat-focused approach. Of course, this opportunity raises questions about the Endangered Species Act. The ensuing political dialogue will allow the United States to examine its priorities and decide how to allocate its resources to preserve biodiversity.

MR. ASEBEY: Well, I would answer very much in the same way as the other members of the panel. Having been born in Bolivia and being a United States businessman, I find my view influenced by the perspectives of the South and North.⁴ I can see things from both points of view. Thus, I think the mistake (regarding competitiveness, etc.) often made in the United States is focusing on what the Convention will do and what burdens it will impose on citizens and corporations. Focusing so narrowly is often a mistake.

Whether the United States becomes a party to the Biodiversity Convention or not, a U.S.-based bioprospecting company would still need to comply with certain criteria imposed by the developing country where the biodiversity materials sought are located. Therefore, in many ways, the legislation of other countries is as important to companies seeking access to genetic resources as the laws of the United States. In simplest terms, the issue is access, and who controls it.

For example, assume a company wants to collect natural products from Brazil. Assume also that Brazil imposes specific requirements on companies before they can do business in Brazil. A company may need to train a certain number of Brazilian scientists, or guarantee a certain quantum of technology transfer, for example. If such a company wants access to Brazilian biodiversity, U.S. law or the United States interpretation of the Convention may be less important than Brazilian law. So I think that it is very important to keep an eye on the practical concerns of U.S. companies. The United States must remember that it is important to ensure access to other countries' biodiversity.

4. Industrialized or "First World" nations are referred to here as the "North." Underdeveloped or "Third World" nations are referred to here as the "South." See Edgar J. Asebey & Jill D. Kempenaar, *Biodiversity Prospecting: Fulfilling the Mandate of the Biodiversity Convention*, 28 VAND. J. TRANSNAT'L L. 703 (1995).

In the past, pharmaceutical companies and other industrial interests have been able to freely access biodiversity mostly because developing states did not fully realize the potential value of biodiversity. United States pharmaceutical companies were not necessarily going in and stealing other countries' genetic resources. The problem has been that developing countries have not had the means to fully capture the valuable potential of their biological resources.

MS. KIMBALL: Is it in your company's interest for the United States to ratify the Convention?

MR. ASEBEY: It is in the best interest of my company, Andes Pharmaceuticals, and all U.S. businesses that have an interest in accessing and conserving biodiversity, that the United States ratify the Convention. I think some of the retaliations referred to by Professor Tinker are very real. Moreover, even if I could meet Brazil's criteria for doing business there (engaging in biodiversity prospecting), Brazil might adopt a policy that discriminates against U.S.-based companies because the United States is not a party to the Convention. In such a situation, the U.S. companies would lose access to Brazil's genetic resources.

PROFESSOR TINKER: Yes, that is the key. If the United States becomes a party to the Convention, then Brazil or Venezuela cannot deny access to U.S. companies without violating international law.

MR. ASEBEY: Exactly. Becoming a party to the Biodiversity Convention is a matter of maintaining U.S. competitiveness.

PROFESSOR CHARNEY: I would like to add two things. One is that it is in the United States interest to protect biodiversity worldwide. Were the United States to join, the Convention would acquire additional authority. The United States endorsement would encourage widespread ratification and therefore more pressure would be put on states to strive to achieve the goals of this Convention. Ultimately, the United States would benefit and the world would benefit from the full implementation of this Biodiversity Convention.

The second thing is the importance of the United States becoming a party to the Convention. By becoming a party to it, the United States would become a player in the development of the Convention, its interpretation, its evolution, its protocols, and whatever else flows from it. As such, the United States can influence the Convention's development and encourage its improvement over time.

To the contrary, if the United States is not a party, it cannot influence the development of the Convention. By becoming a party, it can influence the future. The development of the Convention without the United States will place U.S. interests at risk. However, if the United States participates, it can optimize

its interests and use its geopolitical power by participating in and influencing the development of the Convention and its interpretation.

MR. SIMCOX: Let me ask you about your point, to make sure that we all understand. You said it is in the United States own interest to make sure that worldwide biodiversity is preserved. Can you explain why?

PROFESSOR CHARNEY: From a parochial, industrial perspective, if you want to harvest the biodiverse resources of developing states, you need to make sure those resources are preserved. Preserving genetic and other resources worldwide is important to the United States as a nation because its pharmaceutical and agroprocessing companies use such materials for health and food. So, promoting biodiversity promotes the United States interests. The United States should want to preserve a certain level of biodiversity across a diverse global ecosystem.

MR. ASEBEY: In support of that point, the National Cancer Institute receives natural products from numerous developing countries. I believe seven to nine of these countries operate under a legal instrument called a Letter of Collection,⁵ which ensures U.S. access. This access could disappear from many of these countries if the United States does not ratify the Convention.

PROFESSOR CHARNEY: We should not underestimate the possibility of retaliation raised earlier. The Basel Convention on the Movement of Hazardous Wastes,⁶ in particular, has established some precedent for such discrimination in international law. States that are parties to the Basel Convention may trade in hazardous waste; states that are not parties to the Basel Convention are effectively excluded from this trade with state parties. If the United States does not become a party to the Basel Convention, it will not be able to transport its hazardous waste to state parties. A similar regime may develop regarding biodiverse resources under the Biodiversity Convention. Such a development would impede the economic development of nonstate parties.

5. Formerly known as the Letter of Intent, the Letter of Collection is a document signed between a source country and the National Cancer Institute, providing the basis for accessing genetic resources in exchange for certain assurances from the National Cancer Institute. See Asebey & Kempenaar, *supra* note 4, at 721-24.

6. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 657.

MR. SIMCOX: But is this Biodiversity Convention not a little different from the Basel Convention? If, as, Professor Tinker mentioned, Venezuela barred nonparties from bio-prospecting, would a cartel of resource-rich states be able to keep the United States from gaining access to such materials?

PROFESSOR CHARNEY: In response, I will return to Mr. Asebey's point. At present, biodiversity harvesting does not involve big bucks. It is not very costly to make a product using a genetic resource. It may be easier for a company to acquire that resource through the Convention. A U.S. company may be able to bribe other countries to let them take the genetic resource. But such a situation can be harder for the United States. There is nothing in the Biodiversity Convention that precludes states from granting U.S. companies access to their genetic resources. But those states may find it easier in the short run, maybe even in the longer run, to make it difficult for the U.S. companies to obtain that access. Even if the United States is not a party, state parties may take the position that the United States must follow the obligations of the Biodiversity Convention, and if not they would not let U.S. companies in to harvest genetic resources.

PROFESSOR TINKER: Private U.S. companies can cut a lot of private deals with states that are party to the Convention. However, the stability of the companies' access to biodiversity resources in those countries is probably limited.

MR. SIMCOX: So what the panel is suggesting is that it is cheaper for the United States to go along with the Convention than to try to deal with a cartel, which may impose higher transactional costs and result in less stability of access.

PROFESSOR TINKER: May I have a moment to discuss the language of the Convention with Professor Charney? When you refer to aspirational goals, could not the language of the Convention be seen as much stronger? It is an actual obligation of a state party to uphold the objectives of the Convention. For example, if a state party to the Convention denied biodiversity access to companies of a state also party to the Convention, that would be a breach of the obligations of the Convention. The offended state party could invoke the dispute resolution provisions in the Convention. A state party could not unilaterally, or as part of a cartel, deny access without some type of repercussions; denying access would violate the objectives of the Convention in Article I.

Assume that the United States is a party. To respond to the cartel argument raised, I am suggesting that if all the relevant states are parties to the Convention, then international law will resolve the situation. The United States could rely on the language of the Convention to make its claim that it had been denied access to a particular state's biodiverse resources.

PROFESSOR CHARNEY: Let us look at Article 27 of the Convention; it is a dispute settlement provision. This provision may have teeth. Professor Tinker has asserted that this provision—specifically Article 27, paragraph 3—has teeth. That paragraph states:

When ratifying, accepting, approving or acceding to this Convention, or any time thereafter, a State or regional economic integration organization may [not shall] declare in writing to the Depository that for a dispute not resolved in accordance with paragraph 1 or paragraph 2 above, it accepts one or both of the following means of dispute settlement as compulsory.⁷

The word “may” means that a state has the option of accepting the provision as compulsory or not. So the United States might decide that it will not accept the provision as compulsory. Therefore, it will not be in violation of the Convention to decline compulsory binding adjudication or arbitration under this Convention. There is a difference between “shall” and “may.” “Shall” means you are required by the provision to submit to the Convention’s dispute resolution procedure. That word is just not here. The default dispute settlement procedure is paragraph 4, which is conciliation.

PROFESSOR TINKER: However, paragraph 1 states: “In the event of a dispute between Contracting Parties concerning the interpretation or application of this Convention, the parties concerned shall seek solution by negotiation.”⁸ And paragraph 2 states: “If the parties concerned cannot reach agreement by negotiation, they may jointly seek the good offices of, or request mediation by, a third party.”⁹

PROFESSOR CHARNEY: That is standard operating procedure in United Nations documents; it means good faith negotiation. That is all it means, and good faith negotiation does not require any particular end result.

Now, I will go the next step. The fact that there is not a mandatory third-party dispute settlement mechanism in place does not mean there is no law. A state can be in violation of a legal obligation even though there is no third-party organ in existence to decide and enforce the law. I can establish that proposition. That gets us back to the terminology of the Convention, and the question of whether all of the provisions have fuzzy words around them that make them—outside of the intellectual property areas—very ordinary. Alternatively, the

7. Biodiversity Convention, *supra* note 1, art. 27, para. 3.

8. *Id.* para. 1.

9. *Id.* para. 2.

proposition asserted by Professors Joyner and Tinker is that, perhaps, there is more hard law in the Convention.

MS. KIMBALL: I would like to ask how much difference it makes in practice? For example, for a pharmaceutical company that is operating in Colombia—and we should ask this question specifically of Mr. Asebey—in their contracts and arrangements, how much difference does this Convention's language really make in the situation of company access to a state's resources?

PROFESSOR CHARNEY: Mr. Asebey's company's contract is with the government.

PROFESSOR TINKER: Still, if Colombia does something that is perceived by the U.S. company as being contrary to the Convention, the U.S. government is probably not going to intervene in such a case. So does it make a difference whether or not the dispute settlement provisions in the Convention are compulsory or elective?

PROFESSOR CHARNEY: Well, yes, it does in two ways. First, arbitration only kicks in once a state has let a U.S. company in the door and they have entered into a contract. Remember, there is a lot in this Convention outside of intellectual property.

PROFESSOR TINKER: No doubt, but in this particular circumstance, the access of U.S. companies to a state's resources is the important objective.

PROFESSOR CHARNEY: But the company does not have access until somebody gives it a contract.

PROFESSOR TINKER: Right.

PROFESSOR CHARNEY: And if you do not have this Convention, then they may decide not to give them the contract so you never get to the point we are discussing.

MR. ASEBEY: It would definitely be comforting to get those agreements.

PROFESSOR CHARNEY: But you may be in that situation for the next thirty years.

MR. SIMCOX: While there is apparently some disagreement on the meaning of the language of the dispute resolution provision, and about its practical relevance, I would like to move on to another general hypothetical.

PROFESSOR JOYNER: Before moving on to another hypothetical, I would like to ask the panel to summarize what we have just said. Why is it in U.S. interests to become a party to this Convention? Give me a list of reasons.

MR. ASEBEY: First, access. Improvement in the stability of access. Second, expectations of legal behavior. Companies know what to expect.

PROFESSOR TINKER: Third, to preserve biodiversity worldwide. To provide a specific example, suppose the corn crop in the Midwest is threatened by a plague and none of our seeds will save

the crop, and a U.S. company finds a wild species of maize in the highlands of Mexico that would be effective. A U.S. company may use part of Mexico's biodiversity, cross-breed it with domestic species, and ultimately save the farm economy in the Midwest. That is a clear and simple example. Nonetheless, it illustrates why there is a need to preserve a global library of genes and species. That is one of the values of biodiversity.

PROFESSOR JOYNER: To the converse, why is ratifying this particular Convention not in U.S. interests? What does the United States have to lose by becoming a party to this particular Convention?

PROFESSOR TINKER: It may be costly. We will have to pay. Obviously the trade-off is to get this access to the genetic resources located in the developing countries, the developed countries have to put up money. There is a voluntary fund that is being negotiated now, and discussion about who is going to have to pay into this fund. It is not clear now whether it will be through the Global Environment Facility (GEF) in the World Bank or through some other financial mechanism. Most likely this fund will be associated with the GEF. Where the United States will at least keep a vote, it will have weighted voting rights and will have some control over how the money is spent. Ultimately, however, the Convention is going to impose some financial costs on the United States.

PROFESSOR JOYNER: What about technology transfer?

PROFESSOR TINKER: Article 1 of the Convention provides two ways of achieving the main objective, which is the equitable sharing of benefits: One, Third World nations provide access to genetic resources, which is their commitment under the Convention, and two, First World nations effectuate the appropriate transfer of relevant technology and appropriate funding, which is what the United States and other developed countries agree to contribute when they ratify the Convention. Other developed countries have become parties to the Convention. All of the European countries have ratified it as have Canada, New Zealand, and Australia.

MR. ASEBEY: It is very important to remember that technology transfer is based on voluntary contracts. An argument the United States made at one point was that there might be compulsory licensing of patented technology. The truth is that much of this technology is in the public domain in the United States. So in some ways the United States would be training scientists with knowledge that they could probably get at anyway. It is not that the United States would be throwing patents out the window. There is always the possibility that if pharmaceutical companies do not like the terms required by a

particular state, they can choose not to access the genetic resources of that state. That is an option. However, that is probably not a good choice because it would limit access to the resources of that and other member states.

AUDIENCE MEMBER: Are most of the major pharmaceutical companies accessing biodiverse resources through contracts?

MR. ASEBEY: Well, usually access has not been through contract. It has been through less formal arrangements with parties in a "source" country. One of the greatest values of the Convention despite all the criticism that has been voiced is that the information costs for the developing world have gone way down. Everybody knows that biodiversity has value; whereas five years ago some companies could have much more easily walked into a country, paid some local people to collect whatever plants or other resources they wanted, and left. The point I want to make is that while there have been some contracts in the past, in the future, both contracts and permission from Government Ministries of Environment will be required.

PROFESSOR CHARNEY: Excuse me, if you will recall, the basic rule of international law that has not been followed is that every sovereign state has the right to exploit its own resources. One needs the consent of the state to take resources out of the state. Now what has happened in the past is that nobody paid attention. So a pharmaceutical company would enter a state, hire some locals, and rip the stuff out of the land, put it in a box, and ship it out. Now, everybody has a greater understanding of the value of biodiversity, and the states and the legislatures take the position that before you take resources out of a state—like an antiquity—you are going to have to check off a couple of boxes and do the right thing: pay the state. The Convention sets the parameters for the field of biological resources. Now, it may be fair or it may be arbitrary, but it sets the structure for how these states—that now realize they have valuable resources and realize that they have been ripped off in the past—will deal with these resources.

MS. KIMBALL: I would like to ask if the Convention's objective is to rehabilitate the ecosystems that have already been harmed and whether that would help countries that have fewer resources.

PROFESSOR TINKER: A lot of this law is still being developed and its effect is not clear. We are judging a Convention that has only been in force for a year. Under the Convention, the Global Environment Facility (GEF) is establishing a fund, estimated at two billion dollars, for a period of three years. That fund will be replenished from donations by developed countries, like the United States, Germany, and Japan, and developing countries can apply to the GEF to fund certain projects. So, if Brazil wanted to propose a project to replenish and rehabilitate certain

habitats or ecosystems, it could do that. The GEF has certain priorities and program guidelines to determine which proposals are funded.

MR. ASEBEY: Professor Charney mentioned how developing countries might have been "ripped off" in the past. In a paper¹⁰ last year, I made reference to that issue in the most polite terms I could find. I was taken to task by Resources for the Future (RFF) with all sorts of economic arguments that sought to undermine my thesis that this had actually happened. About three months ago a UNDP¹¹-commissioned report¹² concluded that the developing world was losing about five billion dollars a year in potential royalties from agricultural and pharmaceutical developments that were being used at no cost by transnational food and drug companies.

PROFESSOR CHARNEY: Does that not argue that maybe the United States ought to stay out of the Biological Diversity Convention in order to avoid paying the price?

MR. ASEBEY: Well, it depends. If you look at it in the short run, yes, because the Convention will impose immediate costs. If you want to maintain a worldwide genetic library in the long run, and maintain access to it, then, no. In the short-term, it will be a transfer of wealth to the developing world. In the long run, that may end up guaranteeing that more biodiversity is available for both the developing and developed worlds.

MR. SIMCOX: Allow me to pose another hypothetical. Assume, hypothetically, the United States has moved a bill through Congress to build a dam in Tennessee using federal money. Also assume that the environment will be impacted because this dam is going to eradicate a small fish known as the "slug darter."¹³ The U.S. government would receive a flood of letters complaining about the loss of this small fish. Would the United States have any problems under the Convention on Biological Diversity if it wanted to build a dam in Tennessee that would wipe out a tiny, inedible fish?

10. Edgar J. Asebey, *Indigenous Knowledge and Intellectual Property: Towards Equitable Compensation* (Apr. 12, 1994) (unpublished paper, on file with the author) (discussing the patent system, indigenous knowledge, and compensation mechanisms).

11. United Nations Development Program.

12. *Bio-piracy Costs Third World \$5.4bn a Year*, FINANCIAL TIMES (London) October 28, 1994, News: World Trade Section. The term "biopiracy" refers to the North's rise of genetic biodiversity resources without appropriate compensation.

13. The "slug darter" is a fictional cousin of the snail darter, a species of perch that found its way into the United States Supreme Court. *TVA v. Hill*, 437 U.S. 153 (1978).

MS. KIMBALL: If the fish is protected under the Endangered Species Act, the United States obligation stems from U.S. law. There are no specific species protection obligations under the Convention at the moment.

PROFESSOR JOYNER: If you are a party to the Convention, I believe you have to undertake scientific research to ascertain how seriously threatened the species is.

PROFESSOR TINKER: To understand the issue from the international law perspective, we must separate it from U.S. domestic, political concerns at the moment. If the United States ratifies this Convention, it will be obligated to develop national plans and legislation. Our delegates to the various treaty negotiations and meetings in various U.S. departments—from the State Department, Environmental Protection Agency (EPA), and Agriculture Department, Commerce Department, and all the other federal agencies—have uniformly agreed that U.S. laws would not really have to change very much. According to these officials, the United States has the best domestic environmental legislation in the world. The only obligation arising under the Convention specifically is this very broad one that each state party have a national plan and national legislation.

Now, the content of the plan is up to the individual state to determine. There could be domestic arguments about whether a certain piece of U.S. legislation supports or undermines the purposes of the Convention and whether it is a good idea or a bad idea. But it is a very broad, general obligation to have simply a national plan and national legislation. The Convention itself does not prescribe exactly what the content of this plan or legislation must be.

MR. SIMCOX: But if the slug darter is on the endangered species list and the proposed dam will eradicate the species, will the United States breach an international responsibility by constructing this dam?

PROFESSOR TINKER: Such an action would breach the general international responsibility to conserve and sustain biological diversity, but it would not be a specific breach under the Convention. Professor Joyner talked about the jurisdictional scope of the Convention; the slug darter would be a domestic matter within the territorial jurisdiction of the United States. Another state could not take the United States to task even if it killed off the last slug darter that existed in the whole world, absent some activity beyond national jurisdiction or in the territory of another state. There really would be nothing that another country could do if the United States chose to do something within its borders.

MR. SIMCOX: Would the result be the same if the United States were not just wiping out a species, but the last salt water marsh—a sensitive ecosystem—in the United States?

PROFESSOR TINKER: Unfortunately, yes.

MR. SIMCOX: What if we were to assume that the Brazilian legislature planned to build a dam that would wipe out half of the rain forest?

PROFESSOR TINKER: The Brazilian government can get away with that too if it is paying for the dam itself as part of a national development plan.

PROFESSOR CHARNEY: It is their territory, their resources, their jurisdiction, and their law; it is their responsibility. The question with Brazil is interesting because it involves not only their own responsibility, but also the impact their responsibility or irresponsibility will have on the rest of the international community if the eradication of those tropical forests leads to more global warming.

MR. SIMCOX: Right. There seems to be a consensus here that under the Convention, if the United States wipes out any number of species within its borders, the United States will not breach any international obligation.

PROFESSOR CHARNEY: It is true that the four corners of the Convention do not impose any responsibility on the United States for such an action. But the object and purpose of the Convention and the ultimate result of its being brought into full force will be an international system that will protect these species. So if you are asking if the Convention will prevent the building of the dam tomorrow, the answer is no, it will not. However, the expectation is that once the Convention gets going and is implemented, domestic and international standards will become more refined, that there will be a system in place that will protect species, genes, and ecosystems. That is the ultimate objective. The Convention leads the international community down the path to an end result that would protect biodiversity.

MR. SIMCOX: So you are saying while it would not stop the dam tomorrow, it may stop the dam fifty years from now?

PROFESSOR CHARNEY: Yes, but that requires a consensus of the international community that is more substantive than is within the four corners of the Convention. So, hopefully, the United States will play a role. That is part of my original argument that the United States should play a role in the development of this Convention into something that is more hard law and that will better protect the environment in a way that the United States believes will achieve the appropriate balance of interests.

PROFESSOR TINKER: I agree with Professor Charney. As treaties are implemented, states are going to have to develop more specific guidelines to protect the variety of life on earth.

MR. SIMCOX: So to ensure that the United States has a voice in the development of this international body of law, it needs to get involved in the whole process.

PROFESSOR TINKER: Yes.

PROFESSOR CHARNEY: Another point is that the United States should not lose sight of the fact that this Convention has focused attention on a real problem that has not been acknowledged previously. I think that is an important thing to keep in mind because the Convention is not going to disappear. The phrase "biodiversity" is not going to go away. Instead, the Convention will cause this concern to expand as people realize that there are more and more problems around the world that need to be resolved along those lines.

Professor Joyner earlier this morning mentioned the phrase, "common heritage." I think it is important to focus on the text of the Convention. But, we should also look at the international law that has developed outside of the agreement. In fact, there may be law that protects species and ecosystems that is already in international law, notwithstanding the Convention.

MR. SIMCOX: What are the sources of such international law?

PROFESSOR CHARNEY: Well, I mean, the whole idea of common heritage of humanity. It is an open question, but the idea is that there is at least a common heritage out there, and there may even be resources that are within a particular state but belong to the common heritage of humanity. One thing I think we have talked about is that if we are going to wipe out half of the rain forest, we may cause global warming. We also may do things ultimately that will cause ozone depletion. Those kinds of actions may injure states either legally or actually. This existing international law gives other states standing to bring international claims. So there may be circumstances where the idea of biodiversity is already in the common heritage of humanity under international law. One might argue that the existing international law of biodiversity requires a library of genes that are part of the common heritage of humanity and that must be protected. I do not think I would go that far, but I think it is easier to argue that the big changes that affect the global ecosystem in a major way may already be protected. States are under a legal obligation not to do things that are harmful to other states.

MR. SIMCOX: Compared to developed countries, like the United States, which has developed much of its land already, does the Biodiversity Convention impose an unfair obligation on Brazil

and other developing states by requiring them to maintain their land in pristine form?

PROFESSOR CHARNEY: Developing countries will point out that developed states have already developed; the less developed states should have a right to develop as well. To developing states, the restrictions of the Convention may seem unfair. The argument in response partly would be—and I do not know if you can always get economic analyses to support this conclusion—that you will develop better, more sanely, and profitably if you do not destroy your rain forest. In fact, we are not asking you to sacrifice development for the environment, but to develop in a way that is environmentally and economically safe.

MR. SIMCOX: Well, that is a nice statement to make, but if I am a farmer who owns a great deal of land in Brazil and somebody comes and offers me a good deal of money to take down the trees, I might take that deal.

PROFESSOR CHARNEY: But I am arguing long-term versus short-term.

MR. SIMCOX: Okay. In the short-term such destruction may not be able to be prevented, but in the long-term it may?

PROFESSOR CHARNEY: That is the whole argument for creating economic alternatives to substitute for short-term destructive enterprises. Until the economics of biodiversity are better understood and individuals recognize that biodiverse friendly enterprises offer viable options that are competitive from an economic perspective, more destructive uses will seem economically rational to the individuals. But, in the long-term, the farmer may find the biodiverse-friendly alternative economically viable as well. So we can say to that farmer, "Today I can offer you a different use that will be as lucrative as chopping down all of your trees and selling them."

MR. SIMCOX: You are talking about biodiversity prospecting?

PROFESSOR CHARNEY: Yes, as one way. Biodiversity prospecting has been touted as potentially being a better economic alternative than these more destructive uses. My feeling is that until it is economically competitive—until, not just bioprospecting, but other low-impact biodiversity uses that would be acceptable under the treaty are available to the developing world—you are not going to promote conservation, or at least as much conservation as you could have, without those systems. The developing world should not knock down its forests to run its mills like the United States did one hundred years ago. While that is wrong, I think you need proof of economic alternatives to establish that other means of development are better.

MR. SIMCOX: We have used this term "biodiversity prospecting" a number of times. Mr. Asebey, could you briefly explain what it means?

MR. ASEBEY: It is just the search through biodiversity resources for bioactive compounds with potential pharmaceutical, agricultural, or other economic use.

MR. SIMCOX: So if I were in Brazil and a biodiversity prospector, what would I do?

MR. ASEBEY: I will give you an example of what Andes Pharmaceuticals has done. My company is a biodiversity prospecting company and what we do is transfer technology through a joint venture with the source country that then makes arrangements with local communities, universities, and governments to enter into a specific area, in which it can collect natural product samples for bioactivity testing. Currently we screen for anti-cancer activity as well as some topical diseases.

MR. SIMCOX: Ultimately, you are looking for something that can be useful as a drug?

MR. ASEBEY: Right. Either in the developing world or in the First World markets.

PROFESSOR TINKER: Mr. Asebey's suggestion regarding economic alternatives is certainly correct and is being done now by private companies outside the Convention. It is not only that the developed world is saying to developing countries, "do not do what we did; do what we say." Instead, it is saying, "we will give you that alternative under the Convention by offering technology transfer and financing" so this farmer does not have to cut down all his trees.

MR. ASEBEY: I agree. There is support in the developed world for the view that they are signing this Convention to try to create economic alternatives and support the developing world so that they do not have to develop in a destructive manner.

AUDIENCE MEMBER: Do debt-for-nature swaps come into play in biodiversity negotiations?

MR. ASEBEY: Right now they have fallen out of favor. One of the big pluses of debt-for-nature swaps was their novelty. That plus has kind of gone away because they are not as hot as they used to be due to economic changes.

PROFESSOR CHARNEY: Let me try in two seconds to define debt-for-nature swaps.

Third World states had very high debts to First World banks during the 1970s and 1980s that could not be paid off. Environmental groups wanted to encourage good environmental practices in those debtor countries. A debt-for-nature swap is a vehicle by which the environmental groups would buy the debt at a discounted rate and sell that debt back to the Third World countries in exchange for some commitment to environmental

protection through a variety of schemes. Basically, the environmental groups bought the debt at a discounted rate, which was still a lot of money, and got a Third World state to commit to a pro-environmental program. In exchange for adopting the program, the Third World country got off the financial hook.

MS. KIMBALL: By promoting low impact economic alternatives, the Convention permits the development of a variety of schemes that give local peoples the benefit of increased livelihood. Some other international treaties protect areas or create reserves of various sorts. Some prevent various types of land use; some permit no use at all. If we look at some of these treaties that are complete set-asides and determine additional ways to use the areas sustainably to create benefits for people around them, it may, in fact, help to maintain the protected values in these areas.

PROFESSOR JOYNER: Right. This offers an intermediate use. The United States did burn down its eastern forests, and now it is urging developing states to preserve their forests. You should not engage in certain activities. The Convention may offer an alternative that would not be as destructive. That is the idea to which the Convention aspires.

When you mention burn and cut down the forest, many people associate the United States with being guilty of that throughout the late 19th and early 20th centuries. Yet, the United States has reforested a lot. Brazil can criticize the United States for not practicing what it preaches, but the United States is a leading reforester, and agronomists will state that there are even more trees in the United States now than there were two hundred years ago.¹⁴

MR. ASEBEY: In numbers that is true, but the species and ecosystems are very fragile because sometimes companies reforest with single species, such as pine, while historically there was greater variety. So while the numbers are greater, the ecosystem has been destroyed.

AUDIENCE MEMBER: Should the United States go ahead and become a party now to influence the Convention, or should it wait until the Convention slowly develops in the proper way and then become a party? Also, does the Convention have any teeth?

PROFESSOR CHARNEY: The argument in favor of the United States becoming a party now is that if it gets in on the ground

14. Conversation with Robert Healy, Agronomist, Duke University. See generally Christopher C. Joyner, *Deforestation in Amazonia: Policies, Politics, and Global Implications*, 16 INT'L STUDIES NOTES 24 (Wntr. 1991).

floor, the United States can help to develop the Convention in ways that protect the global environment and the interests of the United States. Some scholars may contend that the United States should wait and see how it evolves. Well, without United States participation, chances are greater that the Convention may evolve in a way that the United States does not want and it would have forfeited the opportunity to play a role in the Convention's evolution. That would be a loss.

A second consideration is Article 38, regarding withdrawal. If the United States becomes a party, it can also withdraw from the Convention after two years by giving a one year notice.¹⁵ So a state can get out of this Convention if it does not like what is happening. So I maintain that it is better for the United States to be in on the ground floor, and to try to influence this as much as possible. And if the United States fails, and the Convention turns out to be a bad deal, then the United States can withdraw.

PROFESSOR JOYNER: At least then, the United States can say that it has made a good faith effort. If the United States does ratify, and gets involved in the process, what would be the worst possible result?

PROFESSOR CHARNEY: Really, the big issue is what remedies are available under international law. Some of them have already been mentioned. A state might be excluded from access to biodiverse regions. That may be not only contrary to our interests but also to the world's interests—that is to biodiversity itself. In theory, the United States would have legal obligations under this treaty. Nevertheless, it cannot be forced to defend its actions allegedly in violation of the Convention before an international court, unless it consents to litigate the matter. As I have argued, states can invoke that violation as grounds for responding in a manner unfavorable to U.S. interests. They can cut off trade relations; they can send diplomatic protest notes; they can refuse to have certain kinds of dealings with the United States. And they could hurt the United States economically. While adverse military actions are unlikely, there could be undesirable economic consequences. I suspect, that if I were to sit down and analyze this matter like Dr. Solow,¹⁶ I would conclude that state parties could not hurt the United States very much, but they could try. If I were Peru and you asked me that question, I would respond that I could be hurt rather badly. Such countries face a greater risk. The United States does have the advantage of being very powerful

15. Biodiversity Convention, *supra* note 1, art. 38.

16. Dr. Andrew Solow addressed the Symposium prior to the Roundtable discussion. See Andrew R. Solow & James M. Broadus, *Issues in the Measurement of Biological Diversity*, 28 Vand. J. Transnat'l L. 695 (1995).

and it does have a very large market in which to sell and buy goods. It is not a country that can be easily pressured by international countermeasures. But there are consequences, and they do tend to compel the United States to abide by its international legal obligations.

AUDIENCE MEMBER: Why look to public international law?

PROFESSOR CHARNEY: Well, if you are staying within the Convention, it is not what we call "self-executing." It is an international legal obligation that is internationally applicable, but not domestically. The Convention cannot be invoked domestically.

If the United States were to adopt legislation pursuant to the Convention, then, yes, it is possible the Sierra Club would have standing to sue. But if the United States does not enact domestic legislation, the United States would not have such a problem. But the United States might face a determination by the state parties or the United Nations General Assembly that the United States is in violation of the Convention and they may collectively take action that could hurt the United States in ways that are more damaging than just one individual state's taking an action. The resolution that could be adopted might be benign, but could be more serious, like an embargo or some other countermeasure collectively that has some bite. Thus, as a result, the United States may not be able to do business in twenty-five countries, and that might be detrimental to U.S. interests. The United States may respond by deciding to get back in line or withdraw from the Convention. If the United States withdraws, the other state parties might respond with even harsher measures against the United States. Thus, withdrawal may not be a viable option for the United States.

PROFESSOR JOYNER: I would like to put on my conservative business community hat and ask: how much does the rest of the world need the United States in terms of this treaty? Does it not control most of the biotechnology? Does the world really need it? How can the United States really be hurt, if its technology is needed so badly?

MR. SIMCOX: I think there is a great deal of fear about what this Convention may mean. We have certainly heard a good deal regarding property rights in the United States. Whether these fears are well founded is questionable given what we have heard today. However, I think the greatest thing out there right now is the fear of what this Convention may mean. There is a fear that by agreeing to something now, in twenty years the United States will be sliding into a situation where it may not have control over activity within its own boundaries, such as building a dam in Tennessee.

PROFESSOR JOYNER: The United States could get out of the Convention.

MR. SIMCOX: Well, that is true, as Professor Charney has indicated. But I think there is considerable fear regarding the United States ceding power to the United Nations and other international entities. Whether these fears have a legitimate basis or not, they are significant.

PROFESSOR JOYNER: My question was really a quantitative one. Does not the United States control most of the biotechnology in the international community? Does not the United States have a preponderance of it? Is there really a genuine sense that the United States could lose out if it does not become a party?

PROFESSOR CHARNEY: I will go even further and suggest that even if you were right, if the United States does not get into this ballgame, U.S. companies will probably just establish subsidiaries or other companies under foreign flags and get the advantage as nationals of state parties that way. Now that cuts a number of ways. One could argue on the one hand, the United States would get the stuff anyway. New Zealand will be a party to the Convention, and U.S. companies will be able to get access to all of these places through them. Thus, the subsidiary will have all the technology, the world will be better off, and the United States will not be committed. On the other hand, the United States would not have control over U.S. companies; it would not get the tax benefits from U.S. companies; it would not get the employment from U.S. companies. This economic activity will go on under other flags.

PROFESSOR TINKER: I want to refer back to the text of the Convention again. Article 16, regarding access to and transfer of technology, goes through some of the specific requirements under the Convention. I agree with Ms. Kimball; it is fuzzy. It is the transfer of appropriate technology to the extent possible "as mutually agreed."¹⁷ Yesterday, we were talking about what actually has to be transferred: the patent rights, the machinery for a factory, or the plans detailing the process. We agreed that there was actually nothing in the Convention that would allow the U.S. government to go to a U.S.-based company that owns a patent on a particular technology and say, "You must transfer this technology to a developing state under the Convention."

PROFESSOR CHARNEY: The carrot is that if you have the technology, do you want to use it? If the resources are not grown in the United States, but they grow abroad, if they want to make use of this technology, they need to get into these Third World countries—it is invaluable that they get in. So their desire to get

17. Biodiversity Convention, *supra* note 1, arts. 16, 20.

into the foreign country is the carrot to encourage the United States to join the Convention.

PROFESSOR TINKER: Implicit in your question was the idea that this technology transfer is a forced thing. There is absolutely no requirement in the Convention to do that. If a company wishes to go, they are going to do it because they have negotiated a contract that is beneficial to them.

PROFESSOR JOYNER: Its profits, I would think.

MR. SIMCOX: Assuming the United States becomes a party to the Convention, what would you suggest changing to make this Convention better?

PROFESSOR TINKER: I would like to start off with a wish list. I would include much stronger language in the Convention that spells out the role of local communities and indigenous peoples.

MR. SIMCOX: That is one of the obligations set forth in the preamble of the Convention.¹⁸ Specifically, the preamble sets forth that this Convention recognizes the vital role that women should play in the conservation and use of biological diversity. It also makes similar statements regarding indigenous groups. Should we interpret your remarks to mean that there is not much more in the Convention than what is in the preamble?

PROFESSOR TINKER: Yes. When women or indigenous peoples want to come to one of the conferences of the parties, what provision is there to make sure they can come—that they are going to have a role and that they can participate? When national plans and laws are being set up in the first place, each state should consult with women, indigenous peoples, and local communities within their own country. And then later on, once they are in place, states should include those same groups in monitoring compliance. If such measures require some funding, then let those groups be funded. That is the only way that it is really going to be a meaningful kind of participation. To generally say that NGOs shall play a role in monitoring the implementation of this Convention is not enough. How will these groups be involved? With what funds? Will it be at the expense of dropping other work that they might be doing? Is not that really the role of the government? What mechanisms are going to be developed to do that? I think the Convention has not gone far enough in this area to specify participation by nongovernmental organizations, women, indigenous people, and local community groups.

MS. KIMBALL: I do not think that you could get agreement at this point among the countries that are trying to ratify this Convention for firmer or more detailed obligations, so why try?

18. *Id.* pmb1.

What is most important for making this Convention work is linking it to specific issues in each region. In doing so, it is equally important to look at the relationships between this and other biodiversity-related treaties and try to reinforce synergies among them—try to identify priorities. It is essential to get away from the species-specific approach and look at large ecosystems or landscapes, and then define priorities in that region for protecting *varieties* of life.

PROFESSOR JOYNER: I think I agree with Ms. Kimball that in large part the fuzzy language in the Convention may be considered a weakness by some, but it is also a strength because it allows for flexibility. It allows for greater acceptance of the terms by more states and more governments. I think the real key to this Convention is not so much how it appears on paper, but how it is implemented in fact. And I think that is where the United States could play a significant international role should it become a party to it, not only as a symbol and as a model of how this Convention should be implemented, but also by encouraging protocols or additional treaties that would make this Convention more of a reality than just a paper package.

MR. SIMCOX: Initially some conference of the parties will be convened annually?

PROFESSOR JOYNER: Yes. I was gratified to learn yesterday from Bob Ward¹⁹ that the next conference of parties in Bali, Indonesia is going to be devoted to the marine environment. So, they are attacking the largest part of the earth's surface in terms of biodiversity at one of their earliest sessions. That I think is encouraging.

MR. ASEBEY: I would have to agree—well, just from my wish list, not that it would be ratified. I agree with Professor Tinker absolutely about indigenous rights. But one thing we did not focus on very much, and I think is one of the most important aspects of conservation, is not how many species are or are not lost, and what the satisfactorily verifiable data establishes. If you go to Latin American and other developing countries, the people closest to biodiversity are the people who are most impacted by deforestation and some other destructive uses. These people who depend on the forest or the biosystems for their living, for their survival, they are being displaced all the time. In Brazil, Bolivia, Colombia, and other states, the governments are often at odds with the interests of indigenous people. Signing a great

19. Mr. Robert Ward addressed the Symposium prior to the Roundtable Discussion. See W. Robert Ward, *Man or Beast: The Convention on Biological Diversity and The Emerging Law of Sustainable Development*, 28 Vand. J. Transnat'l L. 823 (1995).

Convention with the government will not take care of the interests of indigenous people. If you look at the Convention from a Southern perspective, the number one impact is deforestation. In our academic and scientific centers, we get the statistics on the number of species and related information, and I think sometimes we lose sight of the fact that the real issue in developing countries is people. We not only have recognition here in Article 8, but also the means for giving a real voice to indigenous peoples throughout the world. That is something I would like to have seen.

MR. SIMCOX: Well, do you think this Convention has taken a big first step in terms of incorporating language regarding indigenous peoples?

MR. ASEBEY: Yes, absolutely. It is the first time indigenous knowledge has been mentioned. It is a big step, but there is a long way to go.

PROFESSOR CHARNEY: I agree with Ms. Kimball that this is the optimum solution that is also practical. With regard to a wish list, I would include what Professor Tinker would have wished to have in the Convention—compulsory binding dispute settlement procedures.

MR. SIMCOX: It is time for us to adjourn. I want to thank the panelists and all of you for coming.

