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NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20506

November 17, 1993

ACTION

MEMORANDUM FOR ANTHONY LAKE

FROM: EILEEN CLAUSSEN ^{EC}SUBJECT: Transmittal of the Convention on Biological
Diversity to the Senate for Advice and Consent to
Ratification

Attached is a memorandum to the President recommending that the Convention on Biological Diversity be transmitted to the Senate as soon as possible for its advice and consent to ratification (Tab I).

The Administration made commitments to key Senators to transmit this Convention to the Senate before the end of the legislative session. The Senate is expected to adjourn as early as Saturday, November 20. Consequently, action is requested as soon as possible to allow for transmittal before adjournment.

The Convention on Biological Diversity is a comprehensive agreement aimed at stemming the loss of the earth's species, habitats, and ecosystems. Its objectives are the conservation of biological diversity, the sustainable use of genetic resources, and the fair and equitable sharing of benefits derived from the use of such resources. These objectives are implemented through specific provisions on identification and monitoring of genetic resources; conservation and sustainable use of such resources; research, training, and public education; impact assessment; access to genetic resources; access to and transfer of technology; technical and scientific cooperation; handling of biotechnology and distribution of its benefits; and financing.

The Convention was opened for signature at the June 1992 Earth Summit in Rio de Janeiro. The Bush Administration, however, refused to sign, citing concerns about technology transfer (including protection of intellectual property), funding, and biotechnology. This Administration undertook a successful effort, in consultation with representatives of the biotechnology industry and the environmental community, to resolve these concerns. The Administration committed to accompany our instrument of ratification with an interpretive statement setting forth the United States' understanding of Convention provisions relating to intellectual property protection and certain other matters. Consequently, the President announced in April that the United States would sign the Convention, and the United States did so on June 5.

The United States needs no additional legislation to implement its obligations under the Convention. The United States will implement the Convention through existing federal statutes concerning species and habitat conservation, pollution control, research activities, education and public awareness, environmental impact assessment, and technology transfer.

All relevant agencies have cleared the attached transmittal documents.

RECOMMENDATION

That you sign the memorandum to the President at Tab I.

Concurrence: Alan Kreczko *AK*

Attachments

Tab I	Memorandum to the President
Tab A	Transmittal Message to the Senate
Tab B	Letter from the Secretary of State
Tab C	Convention on Biological Diversity

NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20506

ACTION

MEMORANDUM FOR THE PRESIDENT

FROM: ANTHONY LAKE

SUBJECT: Transmittal of the Convention on Biological
Diversity to the Senate for Advice and Consent to
Ratification

Purpose

To transmit the Convention on Biological Diversity to the Senate for its advice and consent to ratification.

The Administration made commitments to key Senators to transmit this Convention to the Senate before the end of the legislative session. The Senate is expected to adjourn as early as Saturday, November 20. Consequently, action is requested as soon as possible to allow for transmittal before adjournment.

Background

Secretary of State Warren Christopher has forwarded the Convention on Biological Diversity for your transmission to the Senate requesting its advice and consent to ratification (Tab C).

Attached for your signature is your transmittal message to the Senate (Tab A), which also forwards the State Department's report on the Convention (Tab B).

The Convention on Biological Diversity is a comprehensive agreement aimed at stemming the loss of the earth's species, habitats, and ecosystems. Its objectives are the conservation of biological diversity, the sustainable use of genetic resources, and the fair and equitable sharing of benefits derived from the use of such resources.

The Convention was opened for signature at the June 1992 Earth Summit in Rio de Janeiro. The Bush Administration, however, refused to sign, citing concerns about technology transfer (including protection of intellectual property), funding, and biotechnology. This Administration undertook a successful effort, in consultation with representatives of the biotechnology industry and the environmental community, to resolve these concerns. The Administration committed to accompany our

cc: Vice President
Chief of Staff

3instrument of ratification with an interpretive statement setting forth the United States' understanding of Convention provisions relating to intellectual property protection and certain other matters. Consequently, you announced in April that the United States would sign the Convention, and the United States did so on June 5.

All relevant agencies have cleared the attached transmittal documents, including our interpretive statements.

RECOMMENDATION

That you sign the Transmittal Message to the Senate at Tab A.

Attachments

Tab A	Transmittal Message to the Senate
Tab B	Letter from the Secretary of State
Tab C	Convention on Biological Diversity

S/S 9326387

DEPARTMENT OF STATE
WASHINGTON

November 16, 1993

The President:

It is an honor to submit to you the Convention on Biological Diversity, with Annexes, done at Rio de Janeiro June 5, 1992, and signed by the United States in New York on June 4, 1993. It is my recommendation that the Convention be transmitted to the Senate for its advice and consent to ratification.

The Convention was opened for signature at the United Nations Conference on Environment and Development on June 5, 1992, at which time the United States declined to sign the Convention due to its concerns with particular provisions in the Convention. Since then, under the chairmanship of the Department of State, all relevant federal agencies conducted a comprehensive review of the Convention and the Department of State met with members of Congress, the private sector, and non-governmental environmental organizations with a view to determining how the United States' concerns could best be addressed. As a result of that view and consultative process, all agencies recommend that the United States ratify the Convention

The President,

The White House.

subject to several understandings described in more detail below.

The Convention is a comprehensive agreement, addressing the many facets of biological diversity. The objectives of the Convention as set forth therein are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. These objectives are implemented through specific provisions that address, inter alia, identification and monitoring, in situ and ex situ conservation, sustainable use, research and training, public education and awareness, impact assessment, access to genetic resources, access to and transfer of technology, technical and scientific cooperation, handling of biotechnology and distribution of its benefits, and financing.

The Convention will play a major role in stemming the loss of the earth's species, their habitats, and ecosystems through direct obligations to conserve biological diversity and sustainably use its components as well as by facilitating access to genetic resources and access to and transfer of technology so crucial to long-term sustainable development of the earth's biological resources. The Convention will also create a much needed forum for focussing international activities and setting global priorities on biological diversity.

The conservation of biological diversity and the sustainable use of its components serve important environmental and economic goals. Conservation of biological diversity and the sustainable use of its components will provide numerous benefits, including new food sources, improved agricultural products and procedures, new tools for combatting disease, and will help maintain the health of our ecological systems.

One way to support the conservation of biological diversity and sustainable use of its components is to create an economic incentive for countries to preserve the biological diversity within their borders. For this reason, the United States accepts the principle that benefits stemming from productive use of genetic resources should flow back to those nations that act to conserve biological diversity and provide access to their genetic resources. These benefits include not only forms of monetary compensation for use of genetic resources, but also opportunities for technology transfer through training, cooperative work programs, and improved access to information.

Voluntarily entered into contractual agreements on the use of genetic resources will provide the most effective vehicle for this flow of benefits. Indeed, the United States views such agreements as providing not only the means through which the many aspects of benefit sharing arrangements, including technology transfer, can be realized, but also as a means for

protecting the various interests that arise in a cooperative venture based on access to or use of genetic resources. In particular, benefit sharing agreements will provide the means for protecting not only proprietary commercial data, but a wide variety of knowledge and technologies not subject to intellectual property protection (e.g., knowledge, traditions and customs of indigenous populations and local communities). Numerous such agreements involving diverse parties, including U.S. firms, foreign governments and indigenous people, are currently fostering technology cooperation.

The participation of the private sector greatly enhances the attainment of economic value from genetic resources. Providing effective incentives for the development of new technologies that make use of genetic resources is as critical as assuring the equitable sharing of the economic benefits that may arise from the use of genetic resources. However, absent an effective means to protect the significant investments necessary to develop new technology, the potential contribution of the private sector to the development of economically valuable products will not be realized.

For this reason, extension of adequate and effective intellectual property protection for the technology derived from the use of genetic resources is an essential prerequisite to the success of the

Convention. The current system of U.S. laws provide an effective level of protection for intellectual property that is completely consistent with the goals of the technology transfer provisions of the Convention.

Furthermore, with respect to technology subject to patents and other intellectual property rights, the Convention requires all Parties to ensure that access to or transfer of technology is consistent with the adequate and effective protection of intellectual property rights. The United States will strongly resist any actions taken by Parties to the Convention in derogation of this obligation.

The best means to foster the technology transfer envisioned by the Convention is for other Parties to provide an effective level of intellectual property protection. Such protection will provide the incentives necessary for the private sector to generate the technology using genetic resources in the first place. It will also provide the suitable climate necessary for cooperation between U.S. firms and those in other countries harboring genetic resources. This cooperation can yield tremendous benefits by fostering not only the voluntary and cooperative transfer of new technology to developing countries, but by encouraging the application of this technology to solve indigenous problems facing those countries. These private sector mechanisms will be complemented by public sector initiatives to support technology transfer in order to

meet specific needs or objectives unmet by the private sector.

With respect to biosafety, the Convention requires Parties to establish or maintain means to regulate, manage, or control the risks associated with the use and release of living modified organisms, and to provide available information about the use and safety regulations required by that Party in handling such organisms. The Convention also requires that the Parties consider the need for and modalities of a possible protocol setting out appropriate procedures in the field of safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation of biological diversity and the sustainable use of its components. Given the recognized threats to biological diversity requiring priority attention, and the substantial amount of biosafety related activities taking place in other appropriate expert fora, the United States does not believe that a protocol on biosafety under this Convention is warranted. However, should discussions on this issue proceed, the United States, in close cooperation with the U.S. biotechnology industry, will work to ensure that any biosafety regime that might arise from the Convention is scientifically based and analytically sound.

The Convention establishes a Conference of the Parties ("COP") and a Subsidiary Body on Scientific,

Technical and Technological Advice. The Subsidiary Body will provide, inter alia, scientific and technical assessments of the status of biological diversity and of the effects of types of measures taken in accordance with the Convention. It will identify technologies and know-how relating to conservation of biological diversity and the sustainable use of its components and provide advice on the ways and means of promoting development and/or transferring such technologies. The Subsidiary Body will advise on scientific programs and international cooperation in research and development. The subsidiary body should become the international focal point for international scientific and technical cooperation. In this capacity, it is well positioned to play an unprecedented role in advancing our understanding of biological diversity and ways in which the United States can work together with the international community to stem its loss most effectively.

The Convention identifies the Global Environment Facility ("GEF"), provided it has been fully restructured in accordance with the Convention, as the institutional structure to carry out the operation of the financial mechanism on an interim basis, for the period between the entry into force of the Convention and the first meeting of the COP or until the COP designates a permanent institutional structure. The United States will provide leadership in the

restructuring process of the GEF to sustain the confidence of developed and developing countries, with a view to its designation as the permanent institutional structure under the Convention.

Further analysis of the articles of the Convention, including the proposed understandings of the United States, are set forth below.

Article 1 (Objectives)

Article 1 establishes the objectives of the Convention to be pursued in accordance with the specific provisions that follow. The objectives as stated therein are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Fair and equitable sharing of benefits is to be accomplished, for example, by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding. As stated in the objectives and as confirmed in the subsequent and more specific provisions, appropriate transfer of technology must take into account all rights to that technology and may only proceed with the voluntary participation of the owner of the technology.

Article 2 (Definitions)

"Biological Diversity" -- the subject of the Convention -- means "the variability among living

organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems." The remaining definitions are self-explanatory.

Article 3 (Principle)

The Convention states verbatim Principle 21 of the Stockholm Declaration from the 1972 United Nations Conference on the Human Environment. This principle recognizes the sovereign right of States to exploit their own resources pursuant to their own environmental policies and the concomitant responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. Although the article lacks language which places it in specific context within the Convention, the United States understands that it references a principle that the Parties will bear in mind in their actions under the Convention. The Department of State recommends that the following understanding be included in the United States instrument of ratification:

The Government of the United States of America understands that Article 3 references a principle to be taken into account in the implementation of the Convention.

Article 4 (Jurisdictional Scope)

Article 4 defines the jurisdictional reach of the Convention. With respect to components of biological diversity (e.g., species, ecosystems, genetic material), Article 4 generally restricts each Party's obligations to those components within the limits of its national jurisdiction in accordance with international law -- its territory, exclusive economic zone, and, if applicable, its continental shelf. Thus, the Convention imposes no direct management obligations on a Party acting individually with respect to components of biological diversity in an area where another Party exercises jurisdiction or on the high seas. The Parties' obligations with respect to high seas resources and other matters of mutual interest are limited to "cooperation" (see Article 5, below).

Each Party is responsible for processes and activities under its jurisdiction or control that are carried out within the area of its national jurisdiction or beyond the limits of any State's jurisdiction.

Article 5 (Cooperation)

Article 5 provides that each Party shall, insofar as possible and appropriate, cooperate with respect to areas beyond any State's jurisdiction and on other matters of mutual interest for the conservation of biological diversity and the sustainable use of its components.

Article 6 (General Measures for Conservation and Sustainable Use)

Article 6 provides that each Party shall, in accordance with its particular conditions and capabilities, develop new or adapt existing national strategies, plans or programs for the conservation and sustainable use of biological diversity and to integrate the conservation of biological diversity and the sustainable use of its components into relevant sectoral or cross-sectoral plans, programs and policies.

Article 7 (Identification and Monitoring)

Pursuant to Article 7, each Party shall, as far as possible and as appropriate, identify and monitor components of biological diversity important for its conservation and sustainable use, identify and monitor processes and categories of activities which have or are likely to have significant adverse impacts on the conservation of biological diversity and the sustainable use of its components, and maintain and organize the data collected.

Article 8 (In-Situ Conservation)

Pursuant to Article 8, the Parties shall, as far as possible and as appropriate, inter alia, take measures with respect to protected areas, biological resources (including threatened species), ecosystems and natural habitats, environmentally sound and sustainable development, living modified organisms resulting from biotechnology processes and activities determined to

have a significant adverse effect on biological diversity, and alien species. In addition, each Party is required, subject to its national legislation, to take measures relating to the knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation of biological diversity and the sustainable use of its components, to promote their wider application, and to encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations, and practices.

Article 9 (Ex-Situ Conservation)

Pursuant to Article 9, the Parties shall, as far as possible and as appropriate, take certain ex-situ measures to complement those taken in-situ. These include, among other things, measures with respect to ex-situ conservation of and research on plants, animals, and microorganisms, recovery and rehabilitation of threatened species, and the collection of biological resources from natural habitats.

Article 10 (Sustainable Use of Components of Biological Diversity)

Article 10 requires each Party, as far as possible and as appropriate, to integrate consideration of such issues into national decision-making, adopt measures to avoid or minimize adverse impacts on biological diversity, protect and encourage customary use of

biological resources in accordance with traditional cultural practices, support local populations to develop and implement remedial action, and encourage cooperation between its governmental authorities and its private sector. Other obligations with respect to sustainable use are incorporated directly into other articles of the Convention.

Article 11 (Incentive Measures)

Article 11 requires each Party, as far as possible and as appropriate, to adopt economically and socially sound measures that act as incentives for the conservation of biological diversity and the sustainable use of its components.

Article 12 (Research and Training)

Article 12 requires the Parties to establish programs for scientific and technical education, to promote and encourage research, and to promote and cooperate in the use of scientific advances in biological diversity research.

Article 13 (Public Education and Awareness)

Article 13 requires the Parties to promote public education and awareness relating to the conservation of biological diversity and the sustainable use of its components.

Article 14 (Impact Assessment and Minimizing
Adverse Impacts)

Paragraphs 1(a) and (b) require each Party, as far as possible and as appropriate, to introduce procedures

that require environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity and to introduce appropriate arrangements to ensure that the effects on biological diversity are taken into account in its programs and policies.

Paragraph 1(c) requires each Party to promote, on the basis of reciprocity, notification, exchange of information, and consultation on activities under their jurisdiction or control which are likely to significantly affect adversely the biological diversity of other States or areas beyond the jurisdiction of any State by encouraging the conclusion of bilateral, regional or multilateral arrangements.

Paragraph 1(d) requires each Party to notify potentially affected States of cases of imminent or grave danger or damage to biological diversity under the jurisdiction of those States.

Paragraph 1(e) calls for national arrangements for emergency responses to activities which present a grave and imminent danger to biological diversity and encourages international cooperation in this regard.

The Convention does not create a liability regime for damage to biological diversity. Instead, Paragraph 2 provides that the COP shall examine the issue of liability and redress for damage to biological diversity, except where such liability is a purely internal matter.

Article 15 (Access to Genetic Resources)

Article 15 recognizes a balance of interests and obligations relating to access to genetic resources under the jurisdiction of each Party. Paragraph 1, recognizing the sovereign rights of States over their natural resources, provides that authority to determine access to genetic resources rests with the national governments and is subject to national legislation. Paragraph 2 calls upon each Party to endeavor to create conditions and facilitate access to genetic resources by other Parties and not to impose restrictions that run counter to the objectives of the Convention. Paragraphs 4 and 5 specify that access, where granted, shall be on mutually agreed terms and subject to prior informed consent of the Party providing such resources.

Paragraph 6 provides that each Party shall endeavor to develop and carry out its scientific research based on genetic resources by other Parties with the full participation of, and where possible in the territory of, such Parties. The subject matter of this paragraph is virtually identical to the subject matter of Article 19(1) and is therefore the subject of an understanding set forth under the discussion of Article 19.

Paragraph 7 requires each Party to take measures with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Party providing such

resources. The Convention specifies that such sharing shall be on mutually agreed terms. The United States interprets this to mean that such sharing must take fully into account exclusive rights to technology that a party may possess, and that transfers of proprietary technology will occur only at the discretion of, and with the voluntary consent of, the owner of the technology.

Paragraph 3 clarifies that the genetic resources being provided under Articles 15, 16, and 19 are those that are provided by Parties that are countries of origin of such resources or by Parties that have acquired the genetic resource in accordance with this Convention. Resources obtained by public or private entities before the Convention enters into force or obtained outside the scope of the Convention are not governed by the Convention.

Article 16 (Access to and Transfer of Technology)

Paragraph 1 creates a general obligation with respect to access to and transfer of technology. It generally obligates each Party to undertake, subject to the provisions of the article, to provide and/or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation of biological diversity and the sustainable use of its components or make use of genetic resources and do not cause significant damage to the environment.

Paragraph 2 specifies the terms of such access and

transfer. It states that access to and transfer of technology shall be provided and/or facilitated under "fair and most favorable terms," including on concessional and preferential terms where mutually agreed, and where necessary, in accordance with the financial mechanism. The United States interprets "fair and most favourable terms" to mean terms that are voluntarily agreed to by all parties to the transaction. Paragraph 2 further provides that in the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. Finally, it provides that application of this paragraph shall be consistent with Paragraphs 3, 4, and 5.

Paragraph 3 requires each Party to take measures with the aim that Parties which provide genetic resources are provided access to and transfer of technology which makes use of those resources on mutually agreed terms, in accordance with international law, and consistent with Article 16, Paragraphs 4 and 5.

Paragraph 4 sets forth the Parties' obligations with respect to private sector technology. It requires each Party to take measures with the aim that the private sector facilitates access to, joint development, and transfer of technology referred to in Paragraph 1 for the benefit of both governmental

institutions and the private sector of developing countries. Thus, the Convention does not direct the private sector to take such measures directly.

Paragraph 5 provides that the Parties, recognizing that patents and other property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives. Apart from this obligation to cooperate, however, the United States understands that nothing in Article 16(5) otherwise alters the obligations of the Parties with respect to access to and transfer of technology, including the obligation of each Party, with respect to technology subject to patents and other intellectual property rights, to ensure that any access to or transfer of technology that occurs under the Agreement recognizes and is consistent with the adequate and effective protection of intellectual property rights.

Technology transfer by the U.S. private sector to other countries, including developing countries, requires an economic infrastructure in the recipient country that encourages the voluntary transfer of technology and provides sufficient safeguards for investment. An essential component of this infrastructure is a legal regime that provides adequate and effective levels of intellectual property

protection. To be considered adequate and effective, a country's intellectual property system must make protection available for all fields of technology and provide effective procedures for enforcing rights. When a recipient country has an inhospitable climate for investment, it becomes less likely that the U.S. private sector will enter that country's market. The absence of such protection has the effect of blocking access to new products based on foreign-originated proprietary technology and inhibiting joint development activities and application of proprietary technology to address indigenous problems or needs of the recipient country.

The Convention is consistent with these fundamental tenets. The United States understands that with respect to technology subject to patents and other intellectual property rights, Parties must ensure that access to and transfer of technology recognize and are consistent with adequate and effective protection of intellectual property rights. In particular, the Convention does not provide a basis for the use of compulsory licensing laws to compel private companies to transfer technology.

The Department of State therefore recommends that the following understanding be included in the United States instrument of ratification:

It is the understanding of the Government of the United States of America with respect to

provisions addressing access to and transfer of technology that:

a. "fair and most favorable terms" in Article 16(2) means terms that are voluntarily agreed to by all parties to the transaction;

b. with respect to technology subject to patents and other intellectual property rights, Parties must ensure that any access to or transfer of technology that occurs recognizes and is consistent with the adequate and effective protection of intellectual property rights, and that Article 16(5) does not alter this obligation.

Article 17 (Exchange of Information)

Article 17 provides for the exchange of information from publicly available sources.

Article 18 (Technical and Scientific Cooperation)

Article 18 requires the Parties to promote technical and scientific cooperation in the field of conservation of biological diversity and the sustainable use of its components.

Article 19 (Handling of Biotechnology and Distribution of Its Benefits)

Paragraph 1 provides for the effective participation in biotechnology research activities by those Parties that provided the genetic resources for such research, where feasible in the territory of such Parties. The United States understands that with

respect to research conducted by public or private entities in the United States, the entity conducting the research shall determine the circumstances under which it is appropriate to provide for the participation of developing countries and whether it is feasible for such research to be performed in the territory of the developing country. The United States considers that in implementing Article 19(1) the Parties should take measures that promote the negotiation of agreements regarding research on genetic resources that are voluntarily accepted by both the provider of the genetic resource and the entity conducting the research activities.

The subject matter of Article 19(1) is virtually identical to the subject matter of Article 15(6). The United States understands Article 15(6) to apply only to scientific research conducted by a Party, while Article 19(1) addresses measures taken by Parties regarding scientific research conducted by either public or private entities. To confirm the United States' understanding of the relationship between Articles 15(6) and 19(1) and the scope of the obligations under Article 19(1), the Department of State recommends that the following understanding be included in the United States instrument of ratification:

It is the understanding of the Government of the United States of America with respect to

provisions addressing the conduct and location of research based on genetic resources that:

a. Article 15(6) applies only to scientific research conducted by a Party, while Article 19(1) addresses measures taken by Parties regarding scientific research conducted by either public or private entities.

b. Article 19(1) cannot serve as a basis for any Party to unilaterally change the terms of existing agreements involving public or private U.S. entities.

Paragraph 2 requires each Party to take practicable measures to promote and advance access on a fair and equitable basis by Parties to the results and benefits arising from biotechnologies based upon genetic resources provided by those Parties. It specifies that such access shall be on mutually agreed terms.

The Convention does not contain provisions relating to the safe transfer, handling and use of living modified organisms resulting from biotechnology. Paragraph 3 calls upon the Parties to consider the need for and modalities of a possible protocol.

Paragraph 4 requires each Party to provide, directly or indirectly, available information about the use and safety regulations required by that Party in handling living modified organisms, as well as any available information on the potential adverse impact of the specific organisms concerned to the Party into which those organisms are to be introduced.

Article 20 (Financial Resources)

Pursuant to this article the Parties undertake to provide financial resources in support of the Convention. Pursuant to Paragraph 1, each Party (including both developing and developed countries) undertakes, in accordance with its capabilities, to provide financial support and incentives in respect of those national activities which are intended to achieve the objectives of the Convention.

Paragraph 2 obligates the developed country Parties to provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention and to benefit from its provisions and which costs are agreed between a developing country Party and the institutional structure established pursuant to Article 21 of the Convention. Assuming the Global Environment Facility ("GEF") is selected as the permanent institutional structure, the United States will implement this obligation through its periodic contributions to the GEF (for which a statutory appropriation will be necessary).

Agreement on the costs of implementing measures cannot be evaluated except in the context of agreement on a particular measure. Thus, the United States understands that to qualify for funding pursuant to this paragraph, both the costs and the measures must be

agreed between a developing country Party and the institutional structure. The Department of State therefore recommend that the following understanding be included in the United States instrument of ratification:

It is the understanding of the Government of the United States of America that, with respect to Article 20(2), the financial resources provided by developed country Parties are to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures that fulfil the obligations of the Convention and to benefit from its provisions and that are agreed between a developing country Party and the institutional structure referred to in Article 21.

Paragraph 3 states that developed country Parties may also provide financial resources through bilateral, regional and other multilateral channels.

Paragraph 4 notes, as a factual matter, that the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and technology.

Paragraphs 5, 6, and 7 note the specific needs of least developed countries, small island states, and

developing countries, including those that are most environmentally vulnerable, such as those with arid, and semi-arid zones, coastal and mountainous areas.

Article 21 (Financial Mechanism)

This article establishes a mechanism for the provision of financial resources to assist developing countries in implementing the Convention. It sets forth the relationship between the COP and the institutional structure to which the operation of the mechanism is to be entrusted. Article 39 designates the Global Environment Facility of the World Bank, United Nations Environment Program, and the United Nations Development Program, provided it has been fully restructured in accordance with the provisions of this article, to be the international structure responsible for the operation of the financial mechanism. Although the article does not expressly designate the GEF as the permanent institutional structure, the article is drafted so as to enable the GEF to perform this function.

Paragraph 1 provides that the mechanism shall function under the authority and guidance of, and be accountable to, the COP and that the operation of the mechanism shall be carried out by such institutional structure as may be decided upon by the COP at its first meeting. In addition, it states that the COP shall determine the policy, strategy, program priorities and eligibility criteria relating to the

access to and utilization of the financial resources. In this context, the United States understands that the "authority" of the COP relates to determining policy, strategy, program priorities, and eligibility criteria and not that the COP will have absolute control over the institutional structure. The Department of State therefore recommends that the following understanding be included in the United States instrument of ratification:

It is the understanding of the Government of the United States of America that, with respect to Article 21(1), the "authority" of the Conference of the Parties with respect to the financial mechanism relates to determining, for the purposes of the Convention, the policy, strategy, program priorities and eligibility criteria relating to the access to and utilization of such resources.

Paragraph 1 further provides that the contributions shall be such as to take into account the need for predictability, adequacy and timely flow of funds referred to in Article 20 in accordance with the amount of resources needed to be decided periodically by the COP. At the time of the adoption of the agreed text of the Convention, nineteen countries (including the United States) declared their understanding that the decision to be taken by the COP under Paragraph 1 refers to the "amount of resources needed" by the

financial mechanism, not to the extent or nature and form of the contributions of the Parties. The Department of State therefore recommends that the following understanding be included in the United States instrument of ratification:

The Government of the United States of America understands that the decision to be taken by the Conference of the Parties under Article 21, Paragraph 1, concerns "the amount of resources needed" by the financial mechanism, and that nothing in Article 20 or 21 authorizes the Conference of the Parties to take decisions concerning the amount, nature, frequency or size of the contributions of the Parties to the institutional structure.

Paragraph 2 provides that the COP at its first meeting will determine the policy, strategy and program priorities, as well as detailed criteria and guidelines for eligibility for access to and utilization of the financial resources. In addition, the COP will decide on the arrangements to give effect to Paragraph 1 after consultation with the institutional structure.

Paragraph 3 provides that the COP will review the effectiveness of the mechanism established under this article. Paragraph 4 provides that the Parties shall consider strengthening existing financial institutions to provide financial resources for the conservation of biological diversity and the sustainable use of its components.

Article 22 (Relationship With Other International Conventions)

Paragraph 1 states that the provisions of the Convention shall not affect the rights and obligations of any Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity. This paragraph was intended to ensure that the Convention supplements, rather than supersedes, existing agreements (e.g., the Convention on International Trade in Endangered Species of Wild Fauna and Flora ["CITES"], the Convention on Wetlands of International Importance Especially as Waterfowl Habitat ["Ramsar"], the General Agreement on Tariffs and Trade ["GATT"]). The only exception would be where the exercise of rights and obligations pursuant to an existing agreement causes a serious damage or threat to biological diversity. The United States is aware of no agreement to which it is a Party, including those relating to the protection of intellectual property rights, the exercise of which would cause a serious damage or threat to biological diversity and would therefore be affected by this paragraph.

Paragraph 2 obligates the Parties to implement the Convention with respect to the marine environment consistently with the rights and obligations of States under the law of the sea. During the negotiations, the United States proposed, in addition to Article 22(2)

the inclusion of a sovereign immunity clause, i.e., that the Convention does not apply to military vessels or aircraft, but that each Party has an obligation to ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with the Convention.

In view of the reference in Paragraph 22(2) to the law of the sea and the recognition by many delegations during the negotiations that the United States proposal was a principle of customary international law and therefore superfluous, the United States withdrew its proposal. The Department of State therefore recommends that the following understanding be included in the United States instrument of ratification:

The Government of the United States of America understands that although the provisions of this Convention do not apply to any warship, naval auxiliary, or other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act

in a manner consistent, so far as is reasonable and practicable, with this Convention.

Article 23 (Conference of the Parties)

This article establishes a COP to meet not later than one year after the entry into force of the Convention and thereafter at regular intervals to be determined by the COP at its first meeting. This article further provides that the COP shall by consensus agree upon and adopt rules of procedure, as well as financial rules governing the funding of the Secretariat.

Article 24 (Secretariat)

This article provides for a secretariat to perform various administrative functions in the Convention. The interim secretariat, to function until after the first meeting of the COP, is to be provided by the Executive Director of the United Nations Environment Program (see Article 40).

Article 25 (Subsidiary Body on Scientific, Technical and Technological Advice)

This article establishes a body to provide the COP with timely advice relating to the implementation of the Convention. It shall be open to the participation by all Parties, shall be multidisciplinary, and shall comprise government representatives competent in the relevant field of expertise. Its specific functions are enumerated in the Convention.

Article 26 (Reports)

This article obligates each Party to present to the COP reports on measures which it has taken for the implementation of the provisions of the Convention and their effectiveness in meeting the objectives of the Convention.

Article 27 (Settlement of Disputes)

This article provides for optional recourse to the International Court of Justice and/or arbitration, and mandatory recourse, at the request of one party to a dispute, to non-binding conciliation.

Articles 28-42 (Final Clauses)

These are standard articles pertaining to such items as the adoption of additional protocols, amendment of the Convention, signature, ratification, and withdrawal procedures. Article 36 provides that the Convention will enter into force on the ninetieth day after the deposit of the thirtieth instrument of ratification, acceptance, approval or accession. Article 37 provides that no reservations may be made to the Convention.

No additional legislation is required to implement the Convention. The United States can implement the Convention through existing federal statutes. For example, the conservation of species is addressed by, inter alia, the Endangered Species Act, the Marine Mammal Protection Act, and the Magnuson Fishery Conservation and Management Act. The conservation of

habitats is addressed by, inter alia, the Marine Protection, Research and Sanctuaries Act, the Coastal Zone Management Act, the National Forest Management Act of 1976, the Wilderness Act of 1964, and the Multiple-Use Sustained-Yield Act of 1960. Other laws require pollution controls, including inter alia the Clean Air Act, the Clean Water Act, the Rivers and Harbors Act, the Ocean Dumping Ban Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Toxic Substances Control Act (TSCA), and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Research activities are authorized by statutes including, inter alia, the 1946 Research and Marketing Act; the Act of August 4, 1965, as amended by the Food, Agriculture, Conservation, and Trade Act of 1990 (FACTA); the National Science Foundation Act of 1950, the Clean Water Act, the Endangered Species Act, and the Fish and Wildlife Act of 1956.

Education and public awareness is promoted by various statutes including, for example, the Fish and Wildlife Act of 1956, and the National Environmental Education Act (NEEA).

The United States cannot compel the transfer of technology held by private persons. With regard to technology controlled by the United States Government, the United States' authority to control the transfer of

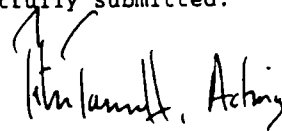
that technology is governed by specific statutory authorities, including, for example, FACTA; the Federal Technology Transfer Act of 1986; and the National Competitiveness Technology Transfer Act of 1989. Other statutes relevant to the transfer of technology include the Clean Air Act; the Federal Food, Drug, and Cosmetic Act (FFDCA), the Public Health Service Act. Trade secrets and confidential business information are protected under a variety of statutes, including the Trade Secrets Act, the Freedom of Information Act, FIFRA, and TSCA.

FACTA also requires that biomaterials assembled by the National Genetic Resources Program be made available upon request, without charge and without regard to the country from which the request originates.

Prompt ratification by the United States will demonstrate to the rest of the world the U.S. commitment to the conservation of the earth's species, their habitats, and ecosystems and to the sustainable use of the components of biological diversity. Ratification of the Convention is consistent with U.S. foreign policy and economic and environmental interests.

It is my recommendation that this Convention be transmitted to the Senate as soon as possible for its advice and consent to ratification.

Respectfully submitted.

 William L. Achen

TO THE SENATE OF THE UNITED STATES:

I transmit herewith, for the advice and consent of the Senate to ratification, the Convention on Biological Diversity, with Annexes, done at Rio de Janeiro June 5, 1992, and signed by the United States in New York on June 4, 1993. The report of the Department of State is also enclosed for the information of the Senate.

The final text of the Convention was adopted in Nairobi by the Intergovernmental Negotiating Committee for a Convention on Biological Diversity ("the INC") on May 22, 1992. The INC was preceded by three technical meetings of an Ad Hoc Working Group of Experts on Biological Diversity and two meetings of an Ad Hoc Working Group of Legal and Technical Experts. Five sessions of the INC were held, from June 1991 to May 1992. The Convention was opened for signature at the United Nations Conference on Environment and Development in Rio de Janeiro on June 5, 1992.

The Convention is a comprehensive agreement, addressing the many facets of biological diversity. It will play a major role in stemming the loss of the earth's species, their habitats, and ecosystems through the Convention's obligations to conserve biodiversity and sustainably use of its components as well as

its provisions that facilitate access to genetic resources and access to and transfer of technology so crucial to long-term sustainable development of the earth's biological resources. The Convention will also create a much needed forum for focussing international activities and setting global priorities on biological diversity.

The objectives of the Convention as set forth therein are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. These objectives are implemented through specific provisions that address, inter alia, identification and monitoring, in situ and ex situ conservation, sustainable use, research and training, public education and awareness, impact assessment, access to genetic resources, access to and transfer of technology, technical and scientific cooperation, handling of biotechnology and distribution of its benefits, and financing.

Economic incentives will help all Parties achieve the environmental benefits of conservation and sustainable use of biological diversity. The Administration thus supports the concept that benefits stemming from the use of genetic resources should flow back to those nations that act to conserve biological diversity and provide access to their genetic resources. We will strive to realize this objective of

the Convention. As recognized in the Convention, the adequate and effective protection of intellectual property rights is another important economic incentive that encourages the development of innovative technologies, improving all Parties' ability to conserve and sustainably use biological resources. The Administration will therefore strongly resist any actions taken by Parties to the Convention that lead to inadequate levels of protection of intellectual property rights, and will continue to pursue a vigorous policy with respect to the adequate and effective protection of intellectual property rights in negotiations on bilateral and multilateral trade agreements. In this regard, the report of the Department of State provides a detailed statement of the Administration's position on those provisions of the Convention that relate to intellectual property rights.

Biological diversity conservation in the United States is addressed through a tightly woven partnership of federal, state and private sector programs in management of our lands and waters and their resident and migratory species. There are hundreds of state and federal laws and programs and an extensive system of federal and state wildlife refuges, marine sanctuaries, wildlife management areas, recreation areas, parks and forests. These existing programs and authorities are considered sufficient to enable any activities

necessary to effectively implement our responsibilities under the Convention. The Administration does not intend to disrupt the existing balance of federal and state authorities through this Convention. Indeed, the Administration is committed to expanding and strengthening these relationships. We look forward to continued cooperation in conserving biological diversity and in promoting the sustainable use of its components.

The Convention will enter into force on December 29, 1993. Prompt ratification will demonstrate the United States' commitment to the conservation and sustainable use of biological diversity and will encourage other countries to do likewise. Furthermore, in light of the rapid entry into force of the Convention, early ratification will best allow the United States to fully represent its national interest at the first Conference of the Parties.

I recommend that the Senate give early and favorable consideration to the Convention and give its advice and consent to ratification, subject to the understandings described in the accompanying report of the Secretary of State.

**CONVENTION
ON BIOLOGICAL DIVERSITY**



**UNITED NATIONS
1992**



United States Department of State

Bureau of Oceans and International
Environmental and Scientific Affairs

Washington, D.C. 20520

RAPIDFAX

CANON FAX-620
!!!URGENT!!!

Date: 7/23/93Time: 3:15TO: Aimee Christensen

Tel. No: _____

Office: OEPFax No: 456-2710Pages to follow: 4

FROM: Peter O. Thomas, Ph.D.TEL. No: 202 736-7113Office Symbol/Number: OES/EHCFax No: 736-7351

SEEHCB #2767

Aimee

MESSAGE

Here are the draft initiatives passed out
to stimulate discussion at our 6/30/93
Biodiversity IWG meeting. As was emphasized
at that meeting these are not formal proposals
but are intended to spur thinking on initiatives
that might be included in our International
Biodiversity Strategy. Peter Thomas

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International Biodiversity and Biological Research Initiatives

The United States is poised to assume a strong leadership role in international environmental issues. Discussion of the National Biodiversity Center and the National Biological Survey has centered on domestic priorities. In parallel with these efforts we must solidify our international leadership on biodiversity conservation. The following proposals will be the foundation of a renewed commitment by the United States to the conservation and sustainable use of biological diversity.

This proposal will establish a strong international program in support of conservation and sustainable use of biodiversity around the globe. These initiatives reflect the calls in the Convention on Biological Diversity and Agenda 21 for strengthening of research capabilities to assess, study and systematically evaluate and observe biodiversity at national and international levels.

(1) Integrate a Strong International Role into the National Biodiversity Center. Technical development of an effective clearinghouse role domestically will lead to a strong international role for the National Biodiversity Center. In addition to becoming a locus for sharing of biodiversity information internationally, it will become a source of technical expertise for other countries and international facilities concerned with the management and databasing of biodiversity information while working to meet their commitments under Agenda 21 and the Convention on Biological Diversity. This scientific and technical contribution will strongly support the overall U.S. program to enhance biodiversity research worldwide. As a first step coordination and links will be established with the North American region (eg. Mexico's National Commission on Biodiversity and appropriate Canadian institutions).

(2) Sponsor a significant program of international scientific and policy workshops on biodiversity. In support of the critical need to increase our knowledge of biodiversity, the U.S. will sponsor a series of meetings on biodiversity research issues. This endeavor will focus on strengthening the research base on biodiversity and increasing communication at the interface between scientists and policy makers in the biodiversity area. It will support the efforts of individual countries and the international community in biodiversity research and involve all manner of government and non-governmental institutions.

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A series of workshops will be held at venues throughout the world. Possible topics to be addressed include identifying critical research needs, improving and increasing awareness of methodologies, building the core of scientific expertise at levels appropriate to answering scientific questions related to management and sustainable use of biodiversity, and encouraging information exchange and scientific cooperation between countries. The endeavor will broaden the focus of and build on, the U.S. Workshop on Survey, Inventory and Data Management held in January.

Specific workshops will address such topics as: Remote sensing, development of biodiversity consultative groups (eg. register of taxonomists), ethnobotany, ecosystem management and microgeography, biodiversity hotspots, assessment of policy-maker needs, monitoring, refinement of ideas on biodiversity analysis at different scales, problems of marine and aquatic research and integration of these areas into biodiversity thinking.

These meetings and the interactions they engender will also focus on increasing training opportunities, in the U.S. and abroad, for scientists, technicians and managers charged with evaluating, sustainably using and conserving biodiversity. There will be a particular emphasis on seeking opportunities to involve local people and to strengthen national and local institutions.

(3) Support the Development of Country Studies, National Biological Resource Centers, and Implementation of Country Strategies to Conserve Biodiversity. The Convention on Biological Diversity and the Agenda 21 Chapter on Biodiversity call for countries to undertake country studies to identify components of biological diversity important for conservation and sustainable use and to integrate biodiversity concerns into socio-economic planning. Substantial international effort is currently underway on refinement of guidelines for such studies. Development of in-country institutions which bring together the people managing, using, and studying biodiversity is crucial for achieving long-term responsible management of biological resources.

The United States will encourage the development of biodiversity country studies and institutions throughout the world through broad technical cooperation and specific targeted support. Specifically 10 target countries will be identified as models for support of the development of biodiversity policies and institutions. Financial and technical resources will be provided with the goal of developing strong

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biodiversity partnerships with those countries. Follow-up support will help realize the goals identified by country studies and national biodiversity strategies.

In undertaking this activity the U.S. will work to develop partnerships with developing countries (eg. Costa Rica, Mexico, Kenya, Indonesia) who have already developed strong cooperation and have considerable expertise of their own in this area.

Support of this activity will be sought in part by seeking additional debt-reduction authority to promote environmental actions and/or debt-for-nature swaps.

(4) Conservation of Plant Genetic Resources The maintenance and conservation of wild and domestic plant strains is a major priority in biodiversity conservation and is essential to the integrity of the world's agricultural base. Support of conservation of plant genetic resources requires an integrated strategy of technical, financial and policy support of domestic, international and foreign institutions for preserving and maintaining plant genetic resources both in-situ and ex-situ. The centerpieces of such a global initiative would include:

A strong and positive approach in the **western hemisphere**, with Canada as a strong partner, particularly focused on the Andean zone and Mexico to:

strengthen plant genetic resource institutions.

improve communication through development of databases and e-mail links.

achieve more cooperation on genetic resource activities.

work to alleviate IPR concerns and establish common interests within the hemisphere.

Support and maintenance of plant genetic resource institutions in the former east bloc countries and the former Soviet Union.

Strengthen domestic capability to support international outreach in the area of plant genetic resources.

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(5) Develop a program to identify and conserve biodiversity hotspots worldwide. While the politics of the biodiversity convention make the notion of identifying biodiversity hotspots at an international level problematic, there is a clear need for rapid action to save as much biodiversity as possible. Hotspot areas are being identified through a variety of means. The U.S. will adopt a program to identify such areas worldwide and work on a bilateral and regional basis, in concert with the initiatives above, toward their protection. The U.S. government will encourage strong partnerships to bring government, international institution, NGO and private sector resources and expertise to bear on developing financing and conservation strategies for these critical areas.

(6) Research and development in the field of ethnobotany and the relationship between biodiversity and its users. In considering the conservation and sustainable use of biological diversity much attention is given to the potential medicinal uses of biodiversity within the western pharmacological paradigm. This is the basis of many economic arguments for biodiversity conservation. This approach ignores the fact that traditional medicinal uses themselves return economic value to local and national economies. Biodiversity is already worth something to local communities without the interaction with industry. There is a major need for ethnobiological research on the relationship between biological resources and people in intact ecosystems. This notion should be integrated into the planning for the initiatives outlined above and consideration must be given to strong support for such research.

MEMO TO DAVID FROM AIMEE

RE: BIODIVERSITY FORUM, hosted by Defenders of Wildlife and Senators Baucus and Chafee.

WHEN: July 20, 1993

David--

this is a brief summary of what was discussed at the forum.

The forum on biodiversity presented an overall view of the issue of species loss and how we can work to protect biodiversity. It started with a speech by Professor Wilson and finished with a briefing on the Defenders of Wildlife's research on public opinion and biodiversity.

Professor Wilson's statement recapped:

There are two categories of environmental problems: the deterioration of physical environment, and the loss of biodiversity. 1.4 million species have been identified and given scientific names while anywhere from 10 to 100 million species exist. One fifth of all bird species have disappeared and 11% of the remaining known species are extinct.

There were five great extinctions in 500 million years. The last one took place 65 million years ago with the end of the mesozoic era. It took ten million years to create as diverse species as there were before. The extinctions were caused by natural occurrences, but we are causing this one ourselves, artificially.

Dr. Schlickeisen of Defenders described their research efforts, why they funded them, and the importance of biodiversity:

New policies are needed, especially funding for research and land acquisition. Trade agreements and U.S. foreign aid need to deal with environmental concerns. We need to be making data-based decisions, not politically-based decisions.

Although no one in the research sample listed biodiversity as the main environmental problem, when they were explained exactly what would happen with the loss of biodiversity, (such as ecosystem destruction, inability to perform ecological functions, food shortages, and the fact that the next generation would be faced with more weeds, insects and deserts than songbirds, elephants and wetlands), they were willing to make some fairly fundamental adaptations to life in order to prevent biodiversity loss. (see the Defenders packet).

The conclusions drawn by the forum were that biodiversity loss is the most threatening environmental issue to date mostly because it is irreversible. Although the vast majority of people do not know what biodiversity is, and in fact have not even heard of it, once they are educated on the consequences of biodiversity loss, they are willing to change their lives to steward the planet more responsibly for coming generations. The morality and health arguments for biodiversity protection were far more powerful than the economic ones.

We need an expanded Land and Water Conservation Fund (the government agency set up for domestic protection and acquisition of land and ecosystems), as well as continued research on the status of species here in the United States (see Schlickeisen's article and mention of Babbitt's establishment of the National Biological Survey which will develop a comprehensive ecosystem database).

Please see the enclosed articles by E.O. Wilson and Roger Schlickeisen.

MEMO FROM AIMEE TO DAVID

DATE: 7/28/93

RE: The Biodiversity Inter-agency Working Group Meeting of 7/30.

David--Peter Thomas from State OES sent over a copy of the "straw person initiatives" which were begun at the last meeting on June 30th, and are designed to initiate discussion for the Friday meeting. He said that the agencies involved have had mixed answers regarding whether or not they will be needing implementing legislation to carry out the Convention; some have said that they may need it, and Peter is going to try to nail them down by Friday. At the meeting we will talk about possible ideas for legislation strategy. Peter also said that he just sent up a copy of their strategy for ratification to Rafe and that you should be getting a copy of that from Rafe. If you don't by Friday, we can get it from Peter then. Finally, OES will report on UNEP's preparations for the first Intergovernmental Committee meeting (October 11-15).

Summary/comments on the initiatives:

We must come up with a proposal to establish a strong international program in support of conservation and sustainable use of biodiversity around the globe. The Convention and Agenda 21 call for strengthening of research capabilities to assess, study and systematically evaluate and observe biodiversity at national and international levels. These proposals are in response:

1) Integrate a strong international role into the National Biodiversity Center.

As a domestic clearinghouse, the Center (in conjunction with the National Biological Survey) can be a source of technical expertise for other countries and international facilities as well as a locus for sharing of biodiversity information internationally. (first step, work with North America: Mexico's National Commission on Biodiversity and Canadian institutions.)

Comments: where is the NBC, and is it part of Interior like the NBS set up by Secretary Babbitt?

2) Sponsor a significant program of international scientific and policy workshops on biodiversity.

These will focus on strengthening the research base on biodiversity and increasing communication at the interface between scientists and policy makers in the biodiversity area. These would encourage information exchange and scientific cooperation between countries and also focus on increasing training opportunities in the U.S. and abroad. (with NGO involvement as well).

Comments: Be sure that the focus of these workshops is scientific, not political; don't want G-77 to be turned off by U.S. control of workshops. Be sure communication goes both ways to learn what will best serve beginning countries, not impose our methods, but offer them as options/examples to be modified.

3) Support the development of country studies, national biological resource centers, and implementation of country strategies to conserve biodiversity.

The development of in-country institutions which bring together the people managing, using, and studying biodiversity is crucial for achieving long-term responsible management of biological resources. The U.S. will encourage this through broad technical cooperation and specific targeted support. Specifically 10 targeted countries will be identified as models for support of the development of biodiversity policies and institutions.

Financial and technical resources will be provided, and follow-up support will help realize the goals identified by country studies and national biodiversity strategies; countries who have already developed strong cooperation and have considerable expertise of their own will be targeted for the partnerships. (finance in part through seeking additional debt-reduction authority to promote environmental actions, and/or debt-for-nature swaps).

Comments: Again, be sure targeted countries are receptive; perhaps look at the Climate Change Country Study initiatives by Reifsnyder's group which take proposals by governments looking for help to implement the Convention. Work with countries.

4) Conservation of plant genetic resources.

Work on a global initiative of maintenance and conservation of wild and domestic plant strains to protect the world's agricultural base through:

- a strong and positive approach in the western hemisphere, with Canada as a partner, which focuses on the Andean zone and Mexico to: strengthen genetic resource institutions, improve communication through e-mail and databases, achieve more cooperation on genetic resource activities, and work to alleviate IPR(?) concerns and establish common interests within the hemisphere.

- support and maintenance of genetic resource institutions in eastern Europe.

- strengthen domestic capability to support this domestic outreach in plant genetic resources.

Comments: perhaps combine this with #3, although our offered support and encouragement can help countries (especially through one-on-one communication, i.e., competition is good) they do not want to be imposed upon. (sovereignty issues). We have good working relationships with Eastern Europe which needs lots of help and tends toward cooperation, so good focus for early targets.

5) Develop a program to identify and conserve biodiversity hotspots worldwide.

The U.S. will adopt a program to identify hotspots and work on a bilateral and regional basis, (through some of the initiatives above), by encouraging strong partnerships to bring government, international institution, NGO and Private sector resources to bear on developing financing and conservation strategies for these areas.

Comments: see the ideas brought up by Conservation International's paper on the GEF and biodiversity, especially discussion of approaches to preserving biodiversity.

6) Research and development in the field of ethnobotany and the relationship between biodiversity and its users.

Although much is being made about the potential medicinal benefits and pharmaceutical profits of biodiversity, it is already of great value to local communities using traditional medicines. There is a major need for study into the relationships between biodiversity and people in intact ecosystems. This needs to be integrated into the above initiatives and strong support for such research must be given.

Comments: see CI paper. Perhaps use AID-type programs?

MEMO TO DAVID FROM AIMÉE

RE: BIODIVERSITY STRATEGY FROM ROGER SCHLICKEISEN

DATE: AUGUST 6, 1993

I just spoke to Roger about biodiversity strategy, and he said that the most important thing that we can do right now is push hard for fast ratification of the Convention. He said that if we wait until next year, it will get caught up with ESA reauthorization, and go down due to mounting criticism by Foley and the wise-use people.

He said that he has been in ongoing touch with Baucus and Chaffee, and that they both will be supportive in the ratification process. The increasing uncertainty with the passage of treaties (i.e., NAFTA and the whole EIS question) makes this a priority. Regarding the question as to whether an EIS is required before ratification, no it is not: the Convention in and of itself has no impact on the current laws, and an EA will say so. He suggested we note the Climate Change Convention as a precedent, which Bush got passed with no opposition from congress.

He also suggested that-with no word out before hand-when the Senate ratifies the Convention, the President announce that he is signing an executive order calling for an interagency task force on coordination of implementation of the Convention (chaired by Babbitt). Roger and Defenders have written a draft of an executive order if we'd like to see it for ideas on where to start on a draft of our own.

SUMMARY OF INTERNATIONAL CONFERENCE ON THE CONVENTION ON BIOLOGICAL DIVERSITY: NATIONAL INTERESTS AND GLOBAL IMPERATIVES.

The article is a verbatim statement of the International Conference on the Convention on Biological Diversity. Organized by the African Centre for Technology Studies, the conference brought together negotiators of the Biodiversity Convention. The conference was attended by state agencies, intergovernmental organizations, NGOs, research institutions, and the private sector.

The stated goals of the conference were:

- 1) Identify ways of translating the Convention on Biological Diversity into national and international implementation plans.
- 2) Generate ideas for the formulation and implementation of protocols to the Convention and clarification of its provisions.
- 3) Consider the establishment of the Global Biodiversity Forum proposed in the WRI/UNEP/IUCN Global Biodiversity Strategy.
- 4) Assist research institutions in formulating research programs that will contribute to further negotiations on the Convention and implementation.

The statement does not identify consensus issues, but does present a series of issues and proposals which emerged from the conference. The following is a summary:

"Making an early start"

- Ratification should be linked to the mobilization of the NGO's, local communities, and indigenous peoples in the implementation process.
- Implementing the convention will require the introduction of biodiversity concerns in the various economic sectors: agriculture, forestry, wildlife, fisheries. This will ensure the conservation and sustainable use of biological resources.
- Developing countries require external support for the training of professionals and the building of research institutions.

"Regulating access to biological resources"

- It will be difficult to implement the provisions for regulated access to biological resources. Need to develop

new legislation, administrative measures, and registers of biological resources. Measures need to be passed which require applicants to provide proof that biological material was legally obtained.

- Suppliers of biological resources should include the requirement to equitably share benefits with local communities and indigenous peoples. Need local monitoring councils.

"Enhancing technological capacity"

- Establish partnerships under which nations or institutions bring together their genetic and technological resources in collaborative ventures.

- Need to monitor the impacts of technological development upon biological resources.

- Although intellectual property rights may reduce the ability of developing countries to have access to certain technologies, it is important to remember that most needed technologies are in the public domain and can be acquired.

- Need to review the appropriateness of existing and proposed intellectual property rights systems.

- The ability of the developing countries to benefit from their biological resources will depend largely on the extent to which they integrate biotechnology development into their development strategy.

- Need new ways to add value to their biological resources, because the value of these raw material is relatively low. One suggestion is to undertake identification, collection, and screening of biological resources for their economic value.

- Need to incorporate biosafety considerations into biotechnology development programs.

"Recognizing the rights of indigenous peoples and local communities"

- Need to recognize the rights of indigenous peoples. Must introduce at the national level legal measures to protect and reward local communities and indigenous peoples for their role in maintaining agrobiodiversity. A suggestion is made to formulate a protocol covering cultural property rights.

"Strengthening human capacity through training and research"

- Need to establish a protocol on research and training

which would provide guidelines for collaborative research, and equitable sharing of benefits.

- Generate information networks.
- New valuation of biodiversity. This new valuation would assist in the identification of costs, benefits, and unmet needs for conservation.

"Coordination International negotiations"

- Need to coordinate GATT with the convention at the United Nations.

"Facilitating implementation"

- Must establish the Global Biodiversity Forum.
- Identify innovative financial mechanisms
- NGOs must be involved in implementation at the international, regional, national, and local level. An NGO liason office should be established.
- Must include provisions to preclude the exchange of biological resources between "Parties and non-Parties." Otherwise countries would benefit from the implementation without joining it.

"Follow-Up Activities"

- Immediate dissemination of the results of the Conference
- African Centre for Technology Studies will begin research to generate options on how some aspects of the convention can be translated into national and international policies and programs. The research will focus on implementation measures as well as elements for protocols to the Convention.
- The government of Norway will host the Norway/UNEP Expert Conference on Biodiversity May 24-28, 1993. The first meeting of the Int. Comm. on the Conv. on Biological Diversity will be in September of 1993.

International Conference on the Convention on Biological Diversity: National Interests and Global Imperatives

January 26-29, 1993
Nairobi, Kenya

As part of DIVERSITY's continuing service to update and inform readers on all major developments affecting the global plant genetic resources community, the following is the verbatim statement of the International Conference on the Convention on Biological Diversity. This conference, organized by the Biopolicy Institute of the African Centre for Technology Studies (ACTS) and the Stockholm Environment Institute (SEI), brought together key negotiators of the Biodiversity Convention (individuals now charged with implementing the convention, concerned non-governmental organizations and researchers) to discuss progress toward ratification of the convention, the development of implementing legislation, methods for achieving the conservation and technology transfer objectives of the convention, and the next steps to be taken by governments and non-governmental organizations (NGOs).

More than 20 background papers were prepared in advance of the conference and will be published by the African Centre for Technology Studies in a volume entitled *Biodiplomacy* to be released in September 1993. This conference provides a model for the Global Biodiversity Forum, first proposed in the *Global Biodiversity Strategy*, which is intended to provide a venue for open debate and dialogue of key biodiversity issues among policymakers, NGOs, and scientists (see DIVERSITY, vol.8, no.1, pp.19-21). Through periodic conferences, the forum will seek to complement the intergovernmental work of the convention by contributing analyses and ideas and by providing a venue for broad NGO participation in the convention process.

CONFERENCE STATEMENT

Preamble

The International Conference on the Convention on Biological Diversity: National Interests and Global Imperatives was organized by the Biopolicy Institute of the African Centre for Technology Studies (ACTS) and the Stockholm Environment Institute (SEI) as a follow-up to the convention and held on January 26-29, 1993 at the United Nations Environment Programme (UNEP) headquarters in Nairobi.

The conference built on: the Convention on Biological Diversity adopted by the Intergovernmental Negotiating Committee on a Convention on Biological Diversity (INC) and signed by 160 countries and the European Economic Community (EEC) and ratified by six countries including Canada and the Peoples Republic of China; the outcome of the United Nations Conference on Environment and Development (UNCED) as contained in Agenda 21; and expertise from the panels established by UNEP to prepare for the first meeting of the International Committee of the Convention on Biological Diversity (ICCBD) to be held in September 1993. The conference was held in the framework of the World Resources Institute WRI/UNEP/IUCN (International Union for Conservation of Nature and Natural Resources) Global Biodiversity Programme.

The conference was attended by participants from 40 countries invited in their individual capacities. The 140 participants came from state agencies, intergovernmental organizations,

NGOs, research institutions, and the private sector. The discussions were based on 30 papers which were specifically solicited on issues relating to national sovereignty, technology development and transfer, financing mechanisms, relationships with other agreements, relationship between Parties and non-Parties, implementation measures, and interim measures. Those issues that relate to the conservation of biodiversity per se will be addressed at the Norway/UNEP Expert Conference on Biodiversity in Norway in May 1993. The two meetings, as well as the International Conference on Biodiversity Country Studies held in Costa Rica in November 1992, are part of the preparatory efforts to contribute to the first meeting of the International Conference on the Convention on Biological Diversity (ICCBD).

The objectives of the conference were to: (1) identify ways of translating the Convention on Biological Diversity into national and international implementation programs; (2) generate ideas for the formulation and implementation of protocols to the convention and clarification of its provisions; (3) consider the establishment of the Global Biodiversity Forum proposed in the WRI/UNEP/IUCN Global Biodiversity Strategy; and (4) assist research institutions in formulating research programs that will contribute to further negotiations on the convention and its implementation.

The following issues and proposals, which do not necessarily represent a consensus among participants, emerged from the conference:

Issues and Proposals

Making an early start

There is an urgent need for all countries to ratify the convention and to introduce new legislation and administrative measures dealing with issues such as the conservation of biodiversity, access to biological resources, sharing of benefits from biological resources, and biotechnology development.

The ratification of the convention should be linked to the mobilization of NGOs, local communities, and indigenous peoples to fully participate in the implementation process. National research institutions should be more actively involved in assessing the requirements for the implementation of the convention and should work closely with governmental agencies in developing national legislation on various aspects of the implementation of the convention.

Implementing the convention will require decisive national actions to introduce biodiversity concerns in the various economic sectors such as agriculture, forestry, wildlife, and fisheries to ensure the conservation and sustainable use of biological resources. Equally, the role of agriculture, forestry, fisheries, and other sectoral activities in the management of biodiversity should receive adequate attention in the implementation of the convention.

Implementing the convention will require dialogues and open discussions at the national and regional levels to mobilize broad support for the implementation process and provide a basis for

national legislation
involving economic sectors

Identifying issues that require attention. The relationships between the state on the one hand, and NGOs, indigenous peoples, and local communities on the other, is critical to the implementation of the convention and needs to be urgently clarified and codified in legislation.

The ability of nations to implement the convention will depend partly on their *human and institutional capacity* to deal with the implementation measures. Developing countries require external support to complement local efforts in fields such as training, research, and institution building. This will enable them to build up a critical mass of professionals in the fields of biodiversity and to ensure competent and sustained leadership at the national level.

International cooperation is essential for the implementation of the convention, especially in addressing poverty and overconsumption issues of relevance to the convention. However, many of the necessary measures for the effective implementation of the convention are available at the *national level*. In this respect, governments will need to put in place measures that facilitate the *mobilization of such scientific, technical, financial, and human resources*.

Regulating access to biological resources

While the convention recognizes the notion of national sovereignty over biological or natural resources, it also stresses the fact that the conservation of such resources is a *common concern of humankind*. In this respect, every party to the convention has an obligation to safeguard these resources.

The provisions on *regulated access* to biological resources are a key aspect of the convention. However, there is a need to examine and analyze these provisions carefully at the national level because some of them may prove difficult to implement, and a certain degree of harmonization of legislation of the contracting parties might be relevant. New legislation, administrative measures, and practices such as *registers of biological resources* will need to be formulated in various countries to enable the implementation of the provision. There is a need to introduce measures which require applicants to provide proof that the biological material upon which they are seeking intellectual property rights were legally acquired.

Specific areas that require attention include introduction of regulations governing the collection of biological resources. Contracts between the collectors, national authorities, and the suppliers of biological resources should include the requirement to *equitably share benefits with indigenous peoples and local communities*. Other measures such as a national monitoring council composed of members of local communities and indigenous peoples need to be introduced. Developing countries are urged to establish programs that would strengthen inter-country cooperation on research and development and collective bargaining with the industrialized countries.

Enhancing technological capacity

The issue of access to and transfer of technol-

ogy, which includes biotechnology, is closely linked to that of access to biological resources. This link can be utilized to enable the suppliers of biological resources and sources of technology to benefit from collaborative ventures. One of the measures that could be used to achieve this is to establish *partnerships under which nations or institutions bring together their genetic and technological resources in collaborative ventures*. This approach would allow the industrialized countries to gain access to biological resources while enhancing the technological competence of the developing countries.

The relevance of each technology to the conservation and sustainable use of biodiversity needs to be carefully assessed in technology transfer arrangements, with special attention to the need to build on indigenous technologies and prior knowledge. *Such technology assessments should take into account the impacts of technological development upon biological resources*.

While intellectual property rights may to a certain extent reduce the ability of developing country firms and institutions to have access to certain technologies, it is important to note that most of the technologies that are needed by the developing countries are in the *public domain* and can be acquired through conventional programs such as *training, information exchange, and access to patent information*. Since the convention respects intellectual property rights, it provides an opportunity for developing countries to have access to patent information through industrial property offices. There is also a need to *review the appropriateness of the existing and proposed intellectual property rights systems and to assess their impact on the conservation of biodiversity*.

The ability of the developing countries to benefit from their biological resources will depend largely on the extent to which they *integrate biotechnology development into their development strategies*. The developing countries need to give priority to biotechnology development as a strategic sector that would enable them to derive economic benefits from the conservation of biological resources. This should include specific measures that build on the technological competence already available in their countries as well as the acquisition of foreign technology.

Developing countries can also enhance their ability to derive benefits from biological resources by *seeking new ways to add value to their biological resources*. The value of such raw materials is relatively low. A way of doing this is to establish or encourage institutions to undertake identification, collection, and screening of biological resources for their economic value. This will enable the developing countries to share the benefits of biotechnological research and strengthen their scientific, technological, and institutional capacity. Such technological capacity could be applied in the development of other sectors of the economy.

The institutions necessary to *manage biosafety* are still nascent in most developing countries. The ability for these countries to

incorporate biosafety programs into biotech development programs effectively implement the biosafety provisions of the convention will depend largely on their institutional capacity in the field. *There is therefore a need to incorporate biosafety considerations into biotechnology development programs*.

Recognizing the rights of indigenous peoples and local communities

Indigenous peoples and local communities—especially women—are the custodians of much of the world's biological resources. But there are inequalities between institutions that safeguard intellectual property rights and those that protect the rights of indigenous peoples and local communities. This imbalance weakens the ability of indigenous peoples and local communities to derive benefits from conserving biological resources and to assert rights over the resources in their areas. There is a need to introduce at the national level *legal measures that recognize the role and rights of indigenous peoples and local communities* as well as the relevant institutional competence in conserving biological resources and improving local varieties. There is a need to put greater emphasis on supporting and rewarding fairly the work carried out by local communities and indigenous peoples to maintain *agrobiodiversity*.

One way to strengthen the provisions on indigenous knowledge is to formulate a *protocol covering cultural property* protection and other rights of indigenous peoples. A working group dealing with how existing instruments for the protection of intellectual and cultural property can be extended to protection of knowledge and biological resources of indigenous and traditional peoples should be set up by the convention secretariat. It should also suggest how additional instruments could be established to ensure such protection. In addition, the institutional capacity of indigenous peoples to manage their own affairs needs to be strengthened.

Forging equal partnerships between and within countries

The developing countries are not merely suppliers of raw materials but are also important sources of technology often embodied in indigenous knowledge. This, together with their biological resources, should form a basis for forging *equitable partnerships* within and between countries. Such partnerships can promote the fair distribution of benefits derived from the use of indigenous knowledge and biological resources.

In the interest of ensuring equitable partnerships among and within countries, an *ombudsman or legal council office* as well as *arbitration mechanisms* should be established in the convention secretariat to support rural communities, indigenous peoples, and national efforts to defend their rights under the convention or the relevant national legislation.

Strengthening human capacity through training and research

The role of *basic research* in the acquisition and development of biotechnology has often

been understated. The developing countries need to build up research and institutional capacity in the biological and information sciences, especially in molecular biology, genetics, taxonomy, and population biology. Such training should also be extended to parataxonomists. There is a need to formulate a protocol on research and training which would provide guidelines on collaborative research, equitable sharing of benefits, and handling of biological resources.

The implementation of the convention will need to draw from a wide range of experiences in the field of biodiversity conservation as well as other fields. Efforts to undertake case studies on current and past practices could be a source of ideas for formulating implementation measures. These studies will be of relevance to the Conference of Parties. It is important therefore that governments, donor agencies, and other institutions provide financial and other support that would enable research institutions to generate information that could be used by the Conference of Parties.

The development of information networks as part of the infrastructure for research and development is critical to the process of technological development. Efforts should be made to strengthen this process and improve the policy and administrative environment for trans-border data flow.

Ensuring that biodiversity benefits are fairly distributed requires a more detailed understanding of the value of biodiversity. Conventional economic approaches cannot adequately deal with this matter, although environmental and ecological economics provide new perspectives as to the valuation of biodiversity and other environmental assets. Such valuation of biodiversity would assist in the identification of costs, benefits, and unmet needs for conservation.

A number of donors are starting to support research-related aspects of the convention. These activities are of critical importance to the efforts of research institutions to elaborate the various aspects of the convention. It is important that they receive sustained support. In return, the outputs of these institutions should be available to the governmental agencies responsible for implementing the convention and carrying out further negotiations on the convention, as well as to NGOs and other institutions.

Coordinating international negotiations

The ratification and implementation of the convention could also provide a strong base for countries to argue for more environmentally sensitive rules governing international trade. Efforts should be made to coordinate the work of the General Agreement on Tariffs and Trade (GATT) with that of the convention at the United Nations and governmental levels. It is recognized that international agreements are being negotiated which have direct relevance to the convention. Of particular importance are the discussions currently underway under the

GATT. It is important to closely monitor the implications of the GATT negotiations for implementation of the convention.

Facilitating implementation

Effecting some of the articles in the convention will require separate protocols covering issues such as research and training, biosafety, cultural property of indigenous peoples, technology development, and access to biological resources. Formulating such protocols will need to be supported by research back-up and a broad process of consultation that includes local communities, indigenous peoples and NGOs.

The proposal to establish the Global Biodiversity Forum to complement the work of the convention is timely and relevant. The forum will explore and debate issues and policy options, foster information flow, and build interest and widespread support from local communities, industry, resource managers, scientists and government officials of all relevant sectors. Regional dialogues on issues of concern need to be initiated as part of the process of establishing a constituency for the implementation of the convention. It was considered essential to maintain an open and inclusive group which would facilitate regional dialogues essential to set up the forum.

The existing financing mechanisms for the convention require reforms to make them more transparent, democratic, and universal in their governance. The resources available through these mechanisms cannot meet current conservation needs, and there is an urgent need to identify innovative measures of mobilizing additional finances at national and international levels.

While it is recognized that NGOs did not play a major role during the negotiations for the convention, their diversity and varied competence are critical to its implementation. NGOs must be involved in the implementation of the convention at the international, regional, national, and local level. Their activities should be seen as essential and complementary to governmental measures. The Conference of Parties should provide a framework for the active involvement of NGOs, indigenous peoples, local community representatives, and other independent participants. An NGO liaison office should be established to support NGO involvement in the activities of the convention.

There are no specific provisions in the convention to preclude the exchange of biological resources between Parties and non-Parties. This would allow countries to benefit from the implementation of the convention without joining it. There is a need for Parties to introduce national measures that preclude free-riding and to subsequently seek a multilateral arrangement through a relevant amendment to the convention.

Follow-Up Activities

The most immediate follow-up activity is the dissemination of the results of the conference.

This will be done through the publication of the report of the conference and release of the papers in *Biopolicy International*.

ACTS will embark on research to generate options on how some aspects of the convention can be translated into national and international policies and programs. The research will elaborate on national and international implementation measures as well as elements for protocols to the convention. Other issues will include elaborating on measures that would further the objectives of the convention such as the need for regional cooperation arrangements on the conservation and sustainable use of biodiversity.

The research agenda will be part of a volume, *Biodiplomacy*, which will include selected papers from the conference and other contributions. The volume will be available before the first meeting of ICCBD. The results of the research will be available to governments, inter-governmental agencies, research institutions, ICCBD, NGOs, and other relevant institutions as a joint effort with UNEP, WRI and other relevant institutions.

ACTS will also continue with its efforts to prepare model legislation for the implementation of the convention.

The Government of Norway will host the Norway/UNEP Expert Conference on Biodiversity on 24-28 May 1993, which will provide another opportunity to discuss the various aspects of the convention. This, and the first meeting of ICCBD in September 1993, will also provide another opportunity to further the proposal for the Global Biodiversity Forum.

For additional information about the International Conference on the Convention on Biological Diversity, contact: African Centre for Technology Studies, P.O. Box 45917, Nairobi, Kenya. Tel: 254 2 741 651; fax: 743 995.

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recover. Steady government is impossible if every twitch of the polls starts a leadership scare, and each lost by-election a crisis. Mrs Thatcher was often loathed but, like Mr Major, she never lost a general election. If the Tories axe another prime minister, voters might rightly punish a party which seems intent on denying them the choice of who leads the country.

At the party conference Mr Major should start a new cam-

paign to be more like her, and so earn the chance to win a second election. Perhaps, in the face of all the criticism, he is losing heart. If he is, he should go at once of his own accord. But if he has the guts to carry on, and the conviction that he can make Britain better, then he should be allowed to soldier on until next summer's elections. By then the Tories will be better placed, if Mr Major has to go, to make their choice.

From guns to gadgets

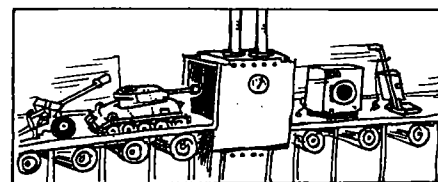
Not all defence companies can make it in civvy street. They should be allowed to go bust

IT IS the stuff of which business-school case studies will one day be made. How do you save an industry with nearly 3m employees and \$45 billion in sales, whose chief customer is no longer buying its wares? Since that customer is the federal government, it is only natural that the woes of America's defence companies have become a matter for politicians as well as managers. From California's gloomy aerospace factories to the over-lobbied corridors of the Pentagon, the fashionable solution is "defence conversion". This summer, Bill Clinton's administration promised to spend \$500m of public money helping the sword-makers diversify into ploughshares.

On the face of it, the case for conversion looks unanswerable. The misfortunes of the defence industry are not only a symptom of a safer world, but a chance for America to make better economic use of the human talent (roughly a fifth of its engineers and scientists) currently tied up in the weapons business. A recent IMF study predicted that if America pruned \$250 billion from defence spending over five years, its economy would be \$7 billion poorer at the end of the five years, but much richer thereafter. Besides, the industry is ripe for reform. Few other businesses have been quite so wasteful or corrupt. By some calculations, four out of every ten dollars the Pentagon spends on weapons goes on dealing with its own paperwork. Despite the money lavished on it, defence technology lags its civilian equivalent in many fields, particularly electronics, because its products change over decades not years.

Conversion may sometimes make commercial sense. But that is not to say that the industry needs, or deserves, government hand-outs to make the switch. Companies have after all had plenty of time to prepare for this latest downturn in what has always been a cyclical business. Cuts in weapons procurement following the wars in Korea and Vietnam were much sharper than the present ones. The present cuts, moreover, did not start abruptly after the cold war, but in 1985, when the defence department's procurement budget was, in real terms, nearly three times bigger than now. Even today's reduced total of \$45 billion leaves scope for plenty of defence companies to restructure profitably. Indeed, defence stocks have outperformed Wall Street for the past two years (see page 69).

The companies want help because they have tried conversion before, and it has failed. In the 1970s Grumman tried to build buses, Boeing hydrofoils and Raytheon data-processing terminals—all with disastrous results. This time, General Dynamics, which lost a packet in the 1970s on commercial shipping and asbestos mining, is (literally) sticking to its guns, keeping its best defence businesses, selling the rest and giving the



proceeds to its shareholders. So far only two sorts of defence companies have shown much flair for conversion: small component suppliers nimble enough to jump from a defence contractor to a commercial one, and the few big firms, such as TRW, that began their metamorphosis decades ago.

Given this history, defence lobbyists are right to argue that conversion is horribly difficult. It is not easy, and may often not be sensible, to turn from making submarines to making sausages. But if it is not sensible, why should governments spend public money on the attempt? It is a fallacy to suppose that helping redundant defence workers (a sensible social policy) means saving unprofitable defence companies (a bad industrial one). Many of the businesses being eyed by the converters (cars, commercial aviation, computer-services) are already overcrowded. Others, such as environmental services, are more enticing. But it is hard to see a case for pushing lumbering defence giants through the door with federal dollars.

Destroy creatively

A far better policy for Mr Clinton's administration is to let the survivors survive and the converters convert, while allowing those firms that can do neither to wither on the vine. Instead of keeping failing companies alive, it should pay for the retraining of vulnerable defence workers, so they can move to industries whose products are still in demand. At the same time, the administration ought to help the surviving parts of the defence industry to reorganise, instead of hindering big mergers as it does now. Faced with shrinking demand and one main customer, defence companies deserve some relief from anti-trust rules that stand in the way of needed mergers. And they should be given more freedom to forge alliances with friendly foreign firms. Western Europe's arms industry is restructuring too. In many cases its firms would make logical partners.

Naturally, some military technologies are so sensitive that the administration will have good reason to block foreign alliances. But, in general, the culture of secrecy in defence procurement is excessive. Under the existing notorious regulations, contractors are required to make many Pentagon-bound objects in separate "secret" assembly lines, thus ruling out the use of civilian technology even for things such as seats in aircraft or brakes in vehicles. Instead of assuming that a widget is secret unless proven innocent, the Pentagon should begin the other way round. Openness, competition and acceptance of the fact that some firms will fail: in defence, as elsewhere, these are the ingredients of a healthy industry.

Buying diversity

How not to spend money on the environment

AID to developing countries has generally done more to destroy species and habitats than to save them. All too often, aid pays for environmentally unfriendly things such as roads and dams, land-clearing and chemical-intensive farming. But for the past three years an experiment has been under way to use aid on an unprecedented scale to protect biological diversity, through the Global Environment Facility (GEF). This fund, run mainly by the World Bank, is nearly at the end of its pilot phase. Last year's Earth Summit in Rio de Janeiro promised the GEF the job of managing the money of the new treaty on biodiversity—if it could be made to work well. The fund deserves a future only if it can make some big changes.

Many of the problems the GEF has run into come from the need to spend a lot of money quickly. To thoughtful environmentalists, the prospect of a \$1 billion bonanza for global greenery seemed like that ancient Chinese curse: "May your wishes be granted." Tiny by World Bank standards, the \$300m handed out so far is vast by the standards of third-world conservation. Of 23 GEF projects analysed in an unpublished report by the United Nations Environment Programme, only two had GEF budgets smaller than the entire annual budget of the associated government department, and ten had budgets that were more than ten times bigger.

The result has been a predictable rush of horror stories. In Brazil the GEF has promised \$30m to a project which was initially to be run partly by a body set up by Brazilian pulp and mining companies; in Kenya the Bank has been squabbling with the United Nations Development Programme; in Uruguay a scheme to save wetlands does nothing to stop the expansion of rice farming which is destroying them in the first place. Local people complain that they are ignored or steam-rolled: in at least half the projects supported so far, embarrassing rows are brewing over how to remove settlers from protected areas.

While some bad projects have received money, some good ones have not. The fund was supposed to pay for schemes that

brought global benefits, rather than national ones (on the theory that governments or the private sector should pay for conservation that brought local gains). As a result, the fund has paid for marginal projects while viable schemes perish for lack of money. Costa Rica has cut by a third the staff who run its protected areas, as part of a public-spending purge required by an IMF loan. Meanwhile the GEF is spending \$8m on building tourist facilities at two reserves. The money would have been better spent on the staff who were sacked.

Protection money

If an unprecedented opportunity for saving species is not to become a series of expensive disappointments, the GEF needs clear priorities. Easier promised than devised: the benefits from conserving biological diversity are notoriously hard to define, let alone measure. But the priorities already set by other international bodies, such as the 87 natural sites chosen by the World Heritage Committee, would be a reasonable starting point. The fund should not search only for schemes with global benefits. Instead, it could meet part of the cost of a project if local investors or government met the rest. Moreover, conservation typically needs small amounts of money which arrive reliably over long periods of time. In some countries the GEF has helped to pay for trust funds—a good, if expensive, way to give long-term help.

Some of the GEF's difficulties come from its close links with the World Bank, which are resented by moderate environmentalists, such as the International Union for the Conservation of Nature, and by some of the developing countries whose biodiversity is being preserved. Without the Bank's involvement, donors may be nervous about giving the fund more money. But with conservation, cash often matters less than winning political support—from governments, from environmental groups and above all from local people. With such support, aid may work. Without it, it will not.

Message in a miracle

The economies of East Asia have astonished the world. What are the lessons?

OVER the past 25 years, eight economies in East Asia have together raised their incomes per head by nearly 6% a year. Japan, already a mighty competitor in the mid-1960s, led the way. Its followers—first South Korea, Taiwan, Singapore and Hong Kong; later Indonesia, Malaysia and Thailand—were all poor countries in 1965. Yet within the space of a generation many of their industries have joined the world's champions—in some cases challenging for technological leadership. In all eight countries, the benefits of this growth have enriched not a narrow elite, but the whole population. It is a staggering

achievement. Never before has so broad and diverse a group of countries grown so fast for so long.

It goes without saying that this economic miracle needs to be understood. Much of the third world, especially the countries of sub-Saharan Africa, remains desperately poor. If the secrets of East Asia's success could be discovered and applied in other developing countries, an enormous advance in human well-being would be within reach. Nor should the lessons be confined to the world's poor countries. For years the big Western economies have been growing far more slowly than East

