



COMPENDIUM *of* SIDE EVENTS

Events held during the fourth meetings
of the Ad Hoc Open-ended Working Group on
Access and Benefit-sharing and the Ad Hoc
Open-ended Intersessional Working Group on
Article 8(j) and related provisions

Granada, Spain
23 January until 3 February 2006



CBD
Convention
on Biological
Diversity



UNEP



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INTRODUCTION

We now know that it is urgent to achieve the 2010 Biodiversity Target. This is ambitious, but success is vital. When Parties committed themselves in 2002, at the World Summit for Sustainable Development, in Johannesburg, to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national level, as a contribution to poverty alleviation and for the greater benefit of all life on Earth, they were taking the first step for the battle for life on Earth.

The 2010 biodiversity target will not be achieved without an enhanced era of implementation of the threefold objectives of the Convention.

Side events organized by agencies and the Convention's partners and stakeholders have, over the years become sources of valuable information and a unique mechanism for the exchange of experiences and best practices. This information deserves to be shared widely and must be sent out to an audience broader than the meeting participants themselves.

For this reason, I am pleased to launch a new initiative-the Compendium of CBD Side Events-containing a summary of side-events held during meetings of the Convention. This Compendium will be published regularly.

As the first of a series, this compendium contains summaries of side events held during the fourth meetings of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing and the Ad Hoc Open-ended Intersessional Working Group on Article 8(j) and related provisions held in Granada, Spain, from 23 January until 3 February 2006.



Ahmed Djoghla
Executive Secretary,
Convention on Biological Diversity

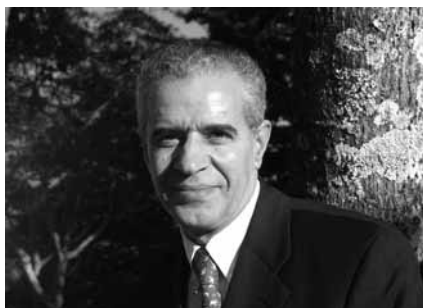


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Side events held during WG ABS

GENERATING MEANINGFUL BENEFITS THROUGH ALTERNATIVE ABS MODELS: THE ROLE OF TK DATA BASES/DIGITAL LIBRARIES

American BioIndustry Alliance (ABIA)

MODERATOR

David E. Warr, Director, International Policy & Government Affairs, Bristol-Myers Squibb

SPEAKERS

Dr. Shakeel Bhatti, Head, Genetic Resources, Biotechnology and Associated TK Section, WIPO
“Trends in Development of TK Data Bases and Registries”

Dr. V. K. Gupta, Director, NISCAIR
“India’s TK Digital Library: Protecting India’s Genetic Heritage”

Dr. Jacques Gorlin, President, ABIA
“Generating Meaningful ABS Benefits for Stakeholders”

The ABIA side event outlined alternative models for generating meaningful benefits to stakeholders from genetic resources and related traditional knowledge. The ABIA event included outside speakers from the World Intellectual Property Organization (WIPO) and India’s independent premier research institute, the Council on Scientific and Industry Research (CSIR). The presentations by Dr. Shakeel Bhatti (WIPO) and Dr. V.K. Gupta (India CSIR - NISCAIR) focused on the role of traditional knowledge databases, registries and digital libraries in providing positive benefits to stakeholders and in preventing issuance of patents lacking novelty or an inventive step by ensuring access to prior art. ABIA President, Dr. Jacques Gorlin provided new data on the positive benefits provided by the Indian TK Digital Library in encouraging innovative research by Indian institutions on Ayurvedic and other traditional knowledge and/or medicinal plants. Dr. Gorlin’s presentation also advocated a contract-based approach to Access and Benefit Sharing (ABS) as a front-loaded alternative to the patent-based approach to ABS enforcement.

As Dr. Gupta explained, the TKDL database acts as a bridge between ancient verses in different local languages and patent examiners in other countries, since it will provide information on modern as well as local names in a language and format understandable to patent examiners. He stressed that the TKDL does not seek to prevent scientific research in the area of medicinal plants; it only seeks to break barriers in language and format for existing codified knowledge available in the public domain. The TKDL is an important tool both

to prevent issuance of patents based primarily on prior art, as well as to promote new research. The data presented by the ABIA confirms that Indian researchers are now gaining patent protection for new inventions related to the data collected in India's TKDL. Beyond India, Dr. Bhatti confirmed that there are a number of other developing countries that have adopted databases and registries for traditional knowledge and genetic resources, both individually and through regional initiatives.

Questions posed by the audience to all three presenters reflected the keen interest of both technical experts and policy makers in the operation of TKDLs and their use in preventing "bad patents" without stifling innovation.

The presentations are available on the ABIA website <http://www.abialliance.com/html/news.html>.

The American BioIndustry Alliance (ABIA) is a non-profit, non-government organization that was recently established by American biotechnology companies to provide focused advocacy in support of the full patentability of biotechnology inventions and the maintenance of the current minimum international standards for the protection of intellectual property needed to sustain and encourage biotechnology research and development. The ABIA seeks enabling conditions for biotechnology through sustainable, mutually beneficial Access and Benefit Sharing (ABS) policies.

A MARKET-BASED APPROACH TO ACCESS AND BENEFIT-SHARING

The Australian APEC Study Centre

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Telephone: +61 3 9903 8757 y Facsimile: +61 3 9903 8813 y www.apec.org.au

The Australian APEC Study Centre held a side event in Grenada to present its report entitled “Developing an effective international regime for access and benefit sharing for genetic resources using market-based instruments”.

The side event was well attended. There was considerable interest in the paper and its key conclusion that there is no evidence that biopiracy constitutes a significant problem. Questions focused on how a market-based alternative based on the creation and allocation of property rights for permission to engage in bioprospecting would work in practice and how the benefits from the creation of such rights could flow to indigenous people.

REAL BIOPIRACY IS NEGLIGIBLE

The assumption underlying the work of the Open-Ended Working Group on Access and Benefit Sharing and the desire to secure agreement to a legally binding instrument governing access and benefit sharing is that biopiracy is extensive and prevents traditional owners of genetic material from securing appropriate benefits from new products derived from their genetic assets. The report demonstrates that there is no evidence that biopiracy constitutes a substantial problem.

Participants accepted that if substantial profits from new products are not being made from bioprospecting in the genetic resources owned by indigenous people then there can be no argument that they are being exploited by biopiracy.

Biopiracy is sometimes confused with “misappropriation”—or theft. Misappropriation can be addressed using existing national laws. Biopiracy implies that a company develops a product for which it does not pay a “fair” return to the country or indigenous people whose genetic resource is embodied in the new product. Participants were most interested to know that the report had examined this issue in some depth.

They were also interested to know that super normal profits are not being made by pharmaceutical companies from bioprospecting and that interest in bioprospecting is declining. The probability of developing a commercially viable product from bioprospecting is very low. Bioprospecting needs to be encouraged rather than have additional hurdles placed on it by a binding international regulatory approach. The best way to encourage bioprospecting is via market-based instruments based on the creation and allocation of property rights to engage in bioprospecting. These points were accepted by those who attended the side event.

EFFECTIVE NATIONAL REGIMES, NOT A BINDING GLOBAL REGIME, IS REQUIRED

Bioprospecting is governed by national laws. Countries do not need a binding international regime to regulate bioprospecting. The evidence is clear. Countries with highly regulatory arrangements governing bioprospecting are less successful in attracting bioprospecting and the investments associated with it than countries which rely on market-based arrangements.

Rather than a bonanza from the development of new wonder drugs, which some argue requires a binding international regime to prevent developing countries from being exploited, the reality is that such a regime will discourage bioprospecting. It will also inhibit countries from capitalizing on their biodiversity assets by selling the rights to engage in bioprospecting. A better option is for countries to use the proceeds from selling bioprospecting rights to invest in biodiversity conservation. They can do so using national laws. They do not need a binding international instrument.

CRIMPING PATENT LAW WILL DISCOURAGE NATIONAL RESEARCH AND FOREIGN INVESTMENT

Countries supporting a binding international regulatory regime are seeking to undermine international patent law for their own purposes. They wish to use a legally binding international regime on access and benefit sharing to limit internationally binding obligations under intellectual property law for their companies to pay royalties on intellectual property developed elsewhere.

But a significant undermining of international patent law via a legally binding international access and benefit sharing regime will discourage national research and foreign investment.

BIOPROSPECTING SHOULD BE ENCOURAGED

The report demonstrates that bioprospecting needs to be encouraged. This can be achieved by market-based arrangements.

EFFECTIVE USE OF NATIONAL CONTRACTS WILL INCREASE BENEFITS

The report sets out how national laws can be used to maximise the benefits from investment in bioprospecting by creating property rights which can be sold to companies wishing to engage in bioprospecting. By using the proceeds from selling bioprospecting rights to conserve biodiversity assets (as Costa Rica did from payments by Merck to engage in bioprospecting) countries can ensure that they secure some benefits even if a commercially viable product is not developed from bioprospecting. By imposing higher costs and hence discouraging bioprospecting an international legally binding arrangement will generate negligible benefits for developing countries from the development of their biodiversity assets. It will ensure that countries which adhere to such a binding international regime cannot capitalise on their biodiversity potential. Most participants at the side event accepted that a market-based alternative would be a better option. Importantly, they accepted that the arrangements set out in the report for a market-based option based on the creation and allocation of property rights would be capable of addressing their concerns.

BIO'S GUIDELINES FOR BIOPROSPECTING

Biotechnology Industry Organization

BACKGROUND

The Biotechnology Industry Organization (BIO) consists of more than 1000 enterprises in over 36 countries. BIO's members create a wide range of products from agricultural and environmental products to healthcare products. More than 90 percent of BIO members are small businesses that are years away from profitability. It can take decades and hundreds of millions of private dollars for a biotechnology company to commercialize a biotechnology product. This is because of the lengthy R&D timeframe and the rigorous regulatory review process generally associated with biotechnology products. In order to translate an innovative idea into a commercially viable product, companies turn to their patent portfolios to generate private investment funding. Consequently, changes that add uncertainty or complexity to the process of obtaining or maintaining patents decrease the value of the patent system to investors which, in turn, discourages research and development of new biotechnological products.

Most biotechnology companies rely on biotechnology platforms to develop new products, Very few biotechnology companies focus on natural product development through bioprospecting, but those that do engage in bioprospecting have a strong track record of creating pioneering arrangements and compliance with the Bonn Guidelines developed under the Convention on Biological Diversity (CBD). BIO's members insist on following the strictest of standards with respect to bioprospecting. In fact, our recent Guidelines for members engaged in Bioprospecting, developed at the request of our members as general principles, reflect standards of conduct articulated in international agreements and the best of national practices. Also, these Guidelines were intended to educate members who do not presently bio-prospect but who may wish to do so in the future.

BIO'S GUIDELINES

BIO's Guidelines (1) correspond closely to the conditions and requirements of the CBD and the Bonn Guidelines and (2) address certain matters that are likely to arise in connection with bioprospecting, but in respect of which the CBD provides incomplete or no guidance. Our Guidelines (1) recognize the importance and value of biological diversity; (2) provide assistance to BIO members seeking guidance in this area; and (3) educate BIO members how to conduct bioprospecting in compliance with national and international regimes by (a) identifying certain "best practices" that can be followed when bioprospecting, and (b) providing a useful "roadmap" for BIO members to use when bioprospecting.

Our Guidelines apply to "Regulated Genetic Resources" (those subject to the CBD and the Bonn Guidelines) but do not apply to human materials, genetic resources placed in an *ex situ* collection in a Party before the date the CBD entered into force with respect to a Party, genetic resources made available to the public on an unrestricted basis, or publicly available information.

Before BIO members engage in bioprospecting, they are directed to: (1) identify the “Providing Party” and any established requirements for bioprospecting; and (2) negotiate a “Bioprospecting Agreement” which includes “Prior Informed Consent” and proper use and handling conditions. If a BIO Member cannot identify the requirements for bioprospecting, that member is still directed to provide at least the following information to the Providing Party: (1) the general nature of the planned activities to be conducted (screening, growth, etc.); (2) the anticipated ultimate use (pharmaceutical, agricultural, etc.); and (3) the identity of the lead researcher or a contact point for the research,

Our Guidelines also direct BIO members to give good faith consideration to benefit sharing, including: (1) monetary benefits upon signing the Bioprospecting Agreement; (2) later payments upon commercialization; (3) technical sharing and cooperation; (4) training opportunities; (5) joint research; and (6) research and origination credit and information sharing.

Importantly the Guidelines direct BIO members to: (1) respect the customs, traditions, and values of indigenous and local communities; (2) respond to their requests for relevant information; (3) take reasonable steps to handle confidential information as requested; and (4) avoid actions that impede the traditional use of Regulated Genetic Resources. BIO members are further directed to: (1) take reasonable steps to prevent harm or alteration to the local environment; (2) avoid taking actions that pose a threat to the conservation or sustainable use of biological diversity; and (3) take all reasonable steps and give good faith consideration to sharing data derived from research that may be useful to support conservation efforts.

On the issue of compliance, our Guidelines direct BIO members to: (1) comply with all Bioprospecting Agreement terms; (2) maintain records relating to handling, storage and physical movement of Regulated Genetic Resources; (3) avoid accepting samples of genetic resources from a third party without evidence of Prior Informed Consent; and (4) include provisions in Bioprospecting Agreements to resolve disputes.

BIO Members respect biodiversity and want to follow BIO’s Guidelines. To do so, they need help with identifying the entities they should contact and negotiate with in each country and with obtaining certainty through clear legal requirements for bioprospecting—requirements that are practical and workable for all.

SEARCH FOR POSSIBLE CASES OF BIOPIRACY

In an effort to further the dialogue on alleged cases of biopiracy, the Government of Peru submitted a document to the WTO Council on TRIPS (IP/C/W/441 /Rev. 1) in which it identified 144 patent families that it suggested might be evidence of biopiracy. Both BIO and PhRMA (Pharmaceutical Manufactures of America) took concerns of Peru seriously and analyzed the document in some detail.

Cited patent families were not owned by members of BIO or PhRMA Members, with only a few exceptions. Furthermore, only a few patent families out of 144 cited claimed a “pharmaceutical” or “biotechnological” invention. The most prevalent uses of the inventions claimed in the cited patent families were herbal remedies or “nutraceuticals”, food for animal or human consumption (not bioengineered), or cosmetics.

All of these materials alleged to have been expropriated through biopiracy are available from commercial suppliers on an unrestricted basis. More importantly, for nearly every species identified in the document there is at least one Peru-based supplier of samples. Again, to our knowledge, none of these suppliers imposed any conditions or restrictions on use of the samples of materials it provided.

Interestingly, most patent families disclosed the crushing, mashing, and then treating of plant materials with a solvent which yielded an extract from the plant. It was this extract that was described as the invention, not the plant per se or isolated or characterized constituents of the extract. It should be noted that BIO or PhRMA members do not pursue these types of uncharacterized products. Moreover, in a few instances, the genetic resource cited by the Peru in the patent applications was not the resource utilized in the invention.

While BIO and its members take these allegations of biopiracy seriously, they do not believe that the document submitted by the Government of Peru demonstrates the existence of widespread biopiracy, especially a type of biopiracy that could be most effectively regulated through the patent system.

AN ACADEMIC'S PERSPECTIVE

Jorge Cabrera, INBio's legal adviser and international consultant on access and benefit-sharing (ABS), also commented on the difficulties facing the user of genetic resources due to the lack of clear frameworks for ABS in a huge number of countries. Only 25 countries have some ABS provisions in place. The BIO Guidelines are a good effort to present good practices and to prevent biopiracy claims. Any guidelines or codes of conduct should build trust between users and providers of genetic resources. For achieving the goal of equitable access and benefit sharing, some acceptance-recognition from the providers as a good practice would be useful. He highlighted the importance of integrating and promoting synergies among this initiative and other initiatives such as the ABS Management Tool.

A COMPANY'S PERSPECTIVE

Jeff Fritz, representing Du Pont, described his company's procedures for promoting compliance with the CBD and other "best practices" with respect to access and benefit sharing. Requests from DuPont employees to engage in bioprospecting and other requests for acquiring genetic resources are screened by internal committees to ensure compliance with the Bonn Guidelines and other best practices. Also, Du Pont obtains the advice of "outside" international experts to screen these requests further. When requests do not meet international standards or when it is not clear that genetic resources are to be acquired in compliance with national or international standards, the requests are not approved. For example, Du Pont has refused to acquire genetic resources from providers that could not demonstrate that the resources were obtained with prior informed consent.

INDIGENOUS PEOPLES' PRACTICAL AND LEGAL EXPERIENCES REGARDING THE PROTECTION OF TRADITIONAL KNOWLEDGE

Call of the Earth Llamado de la Tierra (COE)

This event profiled indigenous peoples' legal experiences regarding the protection of traditional knowledge in various countries/regions including presentations from:

- Mr Rodrigo de la Cruz (Kichwa, Ecuador) on the Andean regional project for the protection of traditional knowledge;
- Mr Alejandro Argumedo (Quechua, Peru) on a proposal for a sui-generis model of protection for indigenous knowledge based on customary law; and
- Ms Le'a Kanehe (Kanaka Maoli, Hawaii) on the legal experiences of a few North American tribes, including their concerns, strategies and tools for the protection of traditional knowledge and cultural property within their own legal systems.

The original invitations for our side events, can be downloaded from our website in both English and Spanish at: www.earthcall.org under the "Events Calendar 2006" section.

DISCLOSURE OF ORIGIN OR SOURCE OF GENETIC RESOURCES AND ASSOCIATED TRADITIONAL KNOWLEDGE IN PATENT APPLICATIONS

Proposal of the European Community and its Member States to WIPO European Community and its Member States

1. Introduction

This document outlines the basic features for a balanced and effective proposal on the disclosure of genetic resources and associated traditional knowledge (TK) in patent applications.

The European Community and its Member States already agreed in the 2002 Communication to the TRIPS Council to examine and discuss the possible introduction of a system, such as a self-standing disclosure requirement, that would allow States to keep track, at global level, of all patent applications with regard to genetic resources.¹ Since 2002, several developments in WIPO, WTO, FAO, the CBD and other relevant fora have contributed to the discussion. More recently, the Conference of the Parties to the Convention on Biological Diversity has invited WIPO to examine issues regarding the interrelation of access to genetic resources and disclosure requirements in intellectual property rights applications, including, inter alia, options for model provisions on proposed disclosure requirements.² The WIPO General Assembly of 2004 decided that WIPO should respond positively to this invitation. The present proposals reflect the position of the EC and its Member States on this issue.

2. A binding disclosure requirement that should be applied to all patent applications

In the 2002 Communication to the TRIPS Council, the EC and its Member States expressed their preference for a requirement that should be applied to all patent applications. The EC and its Member States also consider that the disclosure obligation should be mandatory. This implies that the disclosure requirement should be implemented in a legally binding and universal manner. A global and compulsory system creates a level playing field for industry and the commercial exploitation of patents, and also facilitates the possibilities under Article 15(7) of the CBD for the sharing of the benefits arising from the use of genetic resources.

The introduction of such a scheme should take place in an efficient and timely way, and be related to the existing international legal framework for patents. In order to achieve such a binding disclosure requirement, amendment of the Patent Law Treaty (PLT), the Patent Cooperation Treaty (PCT) and, as the case may be, regional agreements such as the EPC will be necessary. The disclosure requirement then applies to all international, regional and national patent applications at the earliest stage possible.

1. Communication by the EC and its Member States to the TRIPS Council on the review of Article 27.3 (b) of the TRIPS Agreement, and the relationship between the TRIPS Agreement and the Convention on Biological Diversity and the protection of traditional knowledge and folklore (WTO document IP/C/W/383).

2 See document WIPO/GRTKF/IC/6/13.

3. The country of origin or, if unknown, the specific source of the genetic resource should be disclosed

It is suggested that, in order to provide patent applicants with a clear idea of what needs to be disclosed, the language used here should be the same as in the CBD definitions of country of origin, genetic resources and genetic material.³

First, the material that would be the subject of the requirement: Article 15 (7) of the CBD states that access and benefit-sharing objectives must be met with regard to “genetic resources”. It is therefore coherent to use the universally accepted CBD language. “Genetic resources” is defined in Article 2 CBD as “genetic material of actual or potential value”. The same provision states that “genetic material” includes “any material, of plant, animal, microbial or other origin containing functional units of heredity”. In this context, human genetic resources are excluded⁴, and this exclusion should be carried over to the proposed system.

Second, the origin of the genetic resource: a disclosure of origin requirement would assist countries providing access to genetic resources to monitor and keep track of compliance with national access and benefit-sharing rules. On this basis, the applicant should be required to declare the country of origin of genetic resources, if he is aware of it. No additional research on his part would be required. It is the disclosure of the country of origin that paves the way for monitoring the respect of the rules on access and benefit-sharing, where such rules are in place.

The CBD defines the “country of origin” as the country which possesses those genetic resources in *in situ* conditions. Under the CBD, “in situ conditions” means conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.⁵

It is clear that it may not always be possible for the patent applicant to indicate the country of origin. In these situations, it is suggested to make use of the broader notion of “source”. If the country of origin is unknown, the applicant should declare the source of the specific genetic resource to which the inventor has had physical access and which is still known to him. The term “source” refers to any source from which the applicant has acquired the genetic resource other than the country of origin, such as a research centre, gene bank or botanical garden.⁶

Third, the connection between the material and the patented invention: the applicant must have used the genetic resources in the claimed invention. A notion should be applied that makes it possible for the applicant to disclose the material used in the invention in an adequate

3. This proposal does not include the disclosure of the source in patent applications based on genetic resources or traditional knowledge acquired before the entry into force of the CBD.

4. As clarified by the CBD COP Decision II/11, paragraph 2.

5. Article 2.

6. This other source can include the “Multilateral System” as a source of genetic resources belonging to taxa included in annex 1 of the International Treaty on Plant Genetic Resources for Food and Agriculture. According to Article 12.3 (b) of the International Treaty, “access shall be accorded expeditiously, without the need to track individual accessions”. The Multilateral System is the source of the genetic resources, as well as the beneficiary of the sharing of profits from their commercialisation.

way, without having the obligation to make further research on the origin of the resource, taking into account the interests of the applicant, the patent office and other stake holders. A good balance can be found by requiring that the invention must be “directly based on” the specific genetic resources. In such circumstances, the invention must make immediate use of the genetic resource, that is, depend on the specific properties of this resource. The inventor must also have had physical access to the genetic resource, that is, its possession or at least contact which is sufficient enough to identify the properties of the genetic resource that are relevant for the invention.⁷

4. Disclosure of associated traditional knowledge

In this specific case, there are good reasons for an obligation to disclose that an invention is directly based on traditional knowledge associated with the use of genetic resources. According to Article 8 (j) of the CBD, there is a commitment to respect, preserve and maintain traditional knowledge.⁸

Traditional knowledge is of intangible nature and the obligation to disclose cannot be based on physical access. It could therefore be proposed that the applicant should declare the specific source of traditional knowledge that is associated with genetic resources, if he is aware that the invention is directly based on such traditional knowledge. In this context, the European Community and its Member States refer to Article 8 (j) of the CBD where the notion “knowledge, innovations and practices” is used.

However, there are concerns about the possibly unclear scope of the term “traditional knowledge”. In order to achieve the necessary legal certainty, a further in-depth discussion of the concept of TK is necessary.

5. A standardised and formal requirement

In order to become effective, the way that the relevant information will be submitted from the patent applicant to the patent offices must be standardised. This should be organised in a non-bureaucratic and cost-efficient manner. An overwhelming majority of patent applicants do not base their inventions on genetic resources and/or associated TK and for them the burden should be limited to an absolute minimum.

Competent patent authorities, in particular patent offices, are not required to make an assessment on the content of the submitted information. They must also not be obliged to keep track of whether the patent applicant has obtained the relevant material in a way compatible with benefit-sharing and prior informed consent provisions. Their role can be limited to checking whether the formal requirements are fulfilled, in particular, whether the applicant who declares that the invention is directly based on genetic resources and/or associated TK has subsequently disclosed information.

7. See similarly the additional comments by Switzerland on its proposals regarding the declaration of the source of genetic resources and traditional knowledge in patent applications, PCT/R/WG/6/11, paragraph 27

8. The Bonn Guidelines adopted under the CBD to implement its Articles 15 and 8(j) address specifically all genetic resources and associated TK..

The EC and its Member States propose that the disclosure of the information be organised by including questions to be answered in the standard patent application form. The applicant then can give either a negative or a positive response to the question whether the invention is directly based on genetic resources and/or associated TK. If the answer is negative, the applicant does not need to fulfil any other administrative requirement on this issue. A positive answer triggers the requirement to disclose the country of origin or source as foreseen. In the exceptional case that both the country of origin and the source are unknown to the applicant, this should be declared accordingly.

If the patent applicant fails to give a negative or positive response, or if he fails or refuses to disclose information on the country of origin or source in cases where he claims that the invention is directly based on genetic resources and/or associated TK, the patent application is not shaped in accordance with formal requirements, except where the applicant has declared that the country of origin and the source are unknown to him. An applicant should be given the possibility to remedy the omission within a certain time fixed under patent law. However, if the applicant continues to fail to make any declaration, then the application shall not be further processed and the applicant will be informed of this consequence.

6. What should happen in cases of incorrect or incomplete information?

Meaningful and workable sanctions should be attached to the provision of incorrect or incomplete information. Where it is proved that the patent applicant has disclosed incorrect or incomplete information, effective, proportionate and dissuasive sanctions outside the field of patent law should be imposed on the patent applicant or holder. If the applicant provides supplementary information during the processing of the application, the submission of this supplementary information should not affect the further processing of the application. For reasons of legal certainty, the submission of incorrect or incomplete information should not have any effect on the validity of the granted patent or on its enforceability against patent infringers.

It must be left to the individual Contracting State to determine the character and the level of these sanctions, in accordance with domestic legal practices and respecting general principles of law.

Both within WIPO as in other international fora means could be discussed to develop such sanctions.

7. Exchange of information

An indispensable measure that makes the disclosure requirement outlined in the previous sections an effective incentive to comply with access and benefit-sharing rules is the introduction of a simple notification procedure to be followed by the patent offices. The latter, every time they receive a declaration disclosing the country of origin or source of the genetic resource and/or associated TK, should notify this information to a centralised body. This could be done, for instance, by means of a standard form. That would facilitate the monitoring - by countries of origin and TK holders—of the respect of any benefit-sharing arrangements they entered into. The relevant information must be made available in accordance with the present rules on the confidential nature of applications.

The notification should be as simple as possible and must not lead to an unnecessary administrative burden for patent offices. The exchange of information should also be managed in a cost-effective way and without unnecessary additional charges imposed on patent applicants. This could be achieved, for example, by using electronic means.

It would be adequate to identify in particular the Clearing House Mechanism of the CBD as the central body to which the patent offices should send the information available from the declarations on disclosure.

8. Summary

In summary, the EC and its Member States propose the following:

- a) a mandatory requirement should be introduced to disclose the country of origin or source of genetic resources in patent applications;
- b) the requirement should apply to all international, regional and national patent applications at the earliest stage possible;
- c) the applicant should declare the country of origin or, if unknown, the source of the specific genetic resource to which the inventor has had physical access and which is still known to him;
- d) the invention must be directly based on the specific genetic resources;
- e) there could also be a requirement on the applicant to declare the specific source of traditional knowledge associated with genetic resources, if he is aware that the invention is directly based on such traditional knowledge; in this context, a further in-depth discussion of the concept of “traditional knowledge” is necessary;
- f) if the patent applicant fails or refuses to declare the required information, and despite being given the opportunity to remedy that omission continues to do so, then the application should not be further processed;
- g) if the information provided is incorrect or incomplete, effective, proportionate and dissuasive sanctions should be envisaged outside the field of patent law;
- h) a simple notification procedure should be introduced to be followed by the patent offices every time they receive a declaration; it would be adequate to identify in particular the Clearing House Mechanism of the CBD as the central body to which the patent offices should send the available information.

These proposals attempt to formulate a way forward that should ensure, at global level, an effective, balanced and realistic system for disclosure in patent applications.

ABS REGULATIONS AND THEIR IMPACT ON BIODIVERSITY-RELATED (BASIC) RESEARCH

German Research Foundation (DFG)

MEMBERS OF THE EXPERT PANEL:

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- Kate Davis, Royal Botanic Gardens Kew, UK
- Christoph Häuser, State Museum of Natural History, DE
- Gregório Ceccantini, Instituto de Biociências, IBUSP, Universidade de São Paulo, BRA
- Padmashree Gehl Sampath, United Nations University, MERIT, NL
- Peter-Tobias Stoll, University of Göttingen, DE (Moderator)
- Campbell Davidson, Agriculture and Agri-Food Canada, CAN (Facilitator)
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1. Introduction

Susanne Reyes-Knoche, German Research Foundation, DFG, Germany

The main objectives of the CBD as defined in its Article 1 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.

Scientific activities, such as biodiversity-related basic research play a substantial role for the better understanding, conservation and sustainable use of biodiversity and its components.

The CBD has introduced an access procedure for any type of activities concerning genetic resources, which are part of biological resources. The access procedure as defined under Article 15 was not specially designed to suit the peculiarities of basic research activities. It was basically designed to give access to genetic resources for commercialization purposes (e.g. the development of pharmaceuticals). Since the CBD does not make a distinction concerning the access procedure for (basic) research or for mainly commercialization purposes, any kind of access activities with genetic resources has to go through the CBD access procedure.

Biodiversity-related basic research requires direct handling of biological resources and has specific characteristics and working methods. So far biodiversity-related basic research has been carried out under pure research permits, or has been carried out in the context of existing research cooperation arrangements between or among national and international research institutions (universities, scientific institutions, other public research institutions).

The impact of the CBD access procedure on scientific research related to biodiversity and its components, such as genetic resources, is growing, as individual countries implement CBD work programs, applying CBD decisions and guidelines. New developments in the CBD process have the potential to make access to biological material for basic research increasingly difficult, since researchers have to pay attention to new requirements originally designed to regulate access to biological resources for commercialization purposes.

In view of these new developments and their potential impact on basic research activities the Deutsche Forschungsgemeinschaft (DFG) decided to organize a side-event concerning access and benefit-sharing (ABS) their potential impact on biodiversity-related basic research by pointing out the peculiar difficulties when dealing with the law policies and general regulations and trying to identify possible solutions to foster basic research under the CBD.

Another purpose of this side-event was to informally continue the work within the internal DFG Committee on Access and Benefit-Sharing and its work within the G8 Research Foundation's Working Group on "Biodiversity Research: Access to Resources and Benefit-Sharing under the CBD" which held its first meeting last year in Berlin, Germany. At this meeting the representatives of the G8 Research Foundations felt that the concerns of scientists should be communicated to the CBD-ABS forum and a side-event from the point of view of the science community could be a good way to realize it.

2. Background on the DFG and its Committee on Biodiversity Research and Benefit-Sharing

Susanne Reyes-Knoche, Deutsche Forschungsgemeinschaft (DFG), Bonn

The idea of organizing this side-event emerged within the DFG Committee on Biodiversity Research and Benefit-Sharing and its work aiming at analysing the possible impacts of the CBD's ABS principles and its implementation on basic research activities. In order to meet the concerns of the scientists about difficulties arising in the course of planning, arranging and conducting projects in the field of biodiversity a committee was set up at the DFG in 2002. Among its members are scientists experienced in biodiversity research, especially in developing countries, as well as social scientists, e. g. from law or ethnology, and members from the German federal agencies competent in the area of the CBD.

The following provides a brief overview of the DFG and its mission as well as of its internal Committee on Biodiversity Research and Benefit-Sharing.

THE GERMAN RESEARCH FOUNDATION

The German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) is a self-governing organisation of German science and research. The DFG is registered as an association under private law and funded by the federal government and by the states. The main mission of the DFG is to serve all branches of science and the humanities by funding projects devoted to basic research and by facilitating cooperation among researchers on a national and an international scale. It also advises the (federal) parliaments and public authorities on scientific issues paying particular attention to young researchers.

Only investigator-initiated research is funded (bottom-up-approach) and the funding is granted solely on the basis of proposals. There is no restriction concerning the subject of the

proposal. All proposals are assessed by honorary peer reviewers and the decisions are based on solely scientific criteria.

In addition, only scientists working at German research institutions can apply for projects. The counterparts in the host country are cooperation partners. The projects are funded according to prior established rules and regulations. A special type of funding exists for the counterpart in a foreign country: monetary resources for project specific equipment for the host institution, personnel costs and other items (DFG/BMZ-programme).

Additionally, there are special grants to initiate or prepare cooperation projects.

THE DFG- COMMITTEE ON BIODIVERSITY RESEARCH AND BENEFIT-SHARING

In the context of DFG-funded projects in the field of Biodiversity and Ecology carried out in developing countries, the following experiences have been accumulated:

- Scientists normally have long-standing co-operations with their counterparts.
- As bureaucratic rules and regulations increase scientists have to spend more and more time on obtaining research permits and, if necessary, export licenses.
- Even when all necessary permits are obtained, export and especially import (into Germany) of biological material is reported to have become increasingly difficult and time-consuming.
- The majority of scientists and honorary peer reviewers are not fully aware of the CBD-ABS issues.

In view of these experiences, the DFG has established the above mentioned Committee on Biodiversity Research and Benefit-Sharing. The main tasks of the Committee are:

- to promote the continued and long-term realization of Biodiversity-related projects of basic research, in particular regarding biodiversity-related materials in developing countries,
- to assist and to provide guidance for researchers and research projects in planning, managing and undertaking biodiversity-related basic research abroad and
- to support those research projects in exploring and using the potential for a mutually beneficial cooperation with their counterparts, entities and stakeholders abroad.

To achieve those objectives, the work program of the Committee includes inter alia:

- the assistance and provision of guidance for researchers and research projects in planning, managing and undertaking biodiversity-related basic research abroad and
- the assessment of projects and experiences with the view of identifying best practices,
- the drafting of a guide on biodiversity related issues in biological research abroad and
- the exchange of experiences among existing and future projects.

3. The Side-Event: ABS Regulations and their impact on biodiversity-related (basic) research

The side-event in Granada began with a brief introduction to the main subject matter of the meeting by Professor Stoll, University of Göttingen, Germany, focusing on ways to

enhance scientific innovation and development and exploring the role of science in supporting the objectives of the CBD.

The introduction was followed by five presentations of the members of the expert panel. Dr. Leonhard Hirsch, Smithsonian Institution, USA, started with an overview of the ironies of biodiversity in connection to the Natural History Collections. He stated that the Convention on Biological Diversity and its relationship to natural history collections was full of situations where potential and disaster go hand in hand. In his view, it was time to go past these “Ironies” and to develop the necessary trust that will once again support both basic and applied research so to better understand, protect, sustainably use, and benefit from biodiversity. Essential components of trust in this context include traceability, transparency, and tractability.

This presentation was followed by Ms. Kate Davis, Royal Botanic Gardens, Kew, United Kingdom. Her presentation focused on the experiences Kew Gardens have when dealing with ABS regulation. She gave an overview of the background and structure the Principles on Access to Genetic Resources and Benefit-Sharing the Royal Botanic Gardens, Kew, have developed in order to provide a simple and flexible internationally-tested policy framework for botanical institutions to clarify their practices and thus build trust with partners, governments and other stakeholders. The Royal Botanic Gardens, Kew, use the Principles and a set of implementation and capacity-building tools (such as partnership agreements, a committee to appraise fieldwork proposals, and training courses) to raise ABS awareness and compliance inside and outside Kew.

She finalized her presentation by stating that scientists, policymakers and other stakeholders urgently need to improve communication, by clarifying legal measures, learning about each others’ practical work and needs through visits/training, and providing professional incentives and information support for compliance.

Kate Davis’s contribution was followed by a presentation of Dr. Christoph Häuser, State Museum of Natural History, Germany, focusing on his experience from the taxonomic and biosystematic research field. He gave a detailed overview of The Global Taxonomy Initiative (GTI) which has been established as a cross-cutting issue of the CBD. Its extensive work programme was approved by COP6 (VI/8) with the goal to build, increase and maintain the much needed taxonomic capacities to enable implementation of the Convention, particularly with regard to the identification, assessment and monitoring of biodiversity. His presentation aimed at highlighting some of the growing concerns in the taxonomic community about possible negative implications of ABS guidelines on taxonomic research, and to provide some background for these concerns, particularly at the level of international scientific cooperation in support of the CBD. He underlined the importance of the implementation of the ABS principles in a way that these do not impede the work started by GTI and the international sharing of benefits derived from the study of biodiversity.

Dr. Gregório Ceccantini, Instituto de Biociências, IBUSP, Universidade de São Paulo, Brazil, focused on his experience as botanic researcher in Brazil. The presentation gave an overview of the Brazilian law and its practical consequences for basic research related to genetic resources. The note aimed at presenting and discussing the different critical aspects of the Brazilian regulations by analyzing how these regulations interface and at times interfere in the scientific research on biodiversity. He pointed out that legislation does not take

into consideration the interests of basic scientific research, which is causing problems in particular to the own/local scientific community.

Last but not least, Dr. Padmashree Gehl Sampath, United Nations University, MERIT, The Netherlands focused on the interface between basic research and applied science by pointing out, inter alia, legal and economic aspects of the research process and its linkages to the ABS debate. This more economic oriented presentation gave an overview of the drug R&D process, a characterization of the biodiversity market as well as a detailed analysis of the complexity of the bioprospecting contracts.

The above presentations were followed by a lively discussion with the audience about the implications of the CBD's ABS system on the researcher's work in the biodiversity field from the point of view of researchers of the distinct biodiversity-related research areas. The main observations voiced in the discussion led to the following general comments and recommendations that are summarized as follows:

Understanding the role of Science:

- There is a need for a clear understanding of the “products” and “benefits” of research activities. In basic science approaches, information is often the first and primary product. The sharing of information (technology transfer) is a critical aspect of benefit-sharing. On an applied science basis, there is a significant interface between the outcomes of basic research (studies) and potential commercial applications concerning the outcomes and future progress.
- Therefore, there is a need for an adequate definition of the term “basic research” and its interface with applied science.
- An appropriate and practical implementation of the specific ABS principles and requirements taking into account the special needs of biodiversity-related basic research is essential. The Bonn Guidelines concerning biodiversity research should be taken into account by the CBD Parties within their national ABS legislation.
- Historically, scientists have been on the leading edge of international cooperation (in particular with developing countries). It was stated that in some cases the CBD has led to a slowdown in scientific research - mainly in the developing countries. Consequently, capacity building is hampered since a clear path forward relative to the role of research is hard to find.
- Science should be kept out of the “political stew”.

Legal Aspects

- It was discussed whether an International Regime on ABS is really necessary or not. One size cannot be made to fit all circumstances. In this context, it was voiced that legal certainty is not bureaucracy. There are many examples of imperfect regulatory frameworks and no need for more.
- The International Regime on ABS should focus on critical contractual elements. A negative impact with the potential consequence of stopping science should be avoided.
- The importance of traditional knowledge was highlighted. Again, it was stated that to “lump” it in a single “one size fits all” approach is not the appropriate way of dealing with this issue. Here it was noted that there is a great variability in strategies to manage traditional knowl-

edge (as needed), so what might work in one area may not in another (Brazil example). It was suggested to discuss if possible, traditional knowledge and its utility in the process and contractibility.

- Furthermore it was discussed whether the “new proposed ABS regime” could be made operational at the bench level.

Role of rewarding innovation, inventors and their partners

- An important crossroad is the interface of Science, Conservation and Commercial (trade) arenas which requires a better understanding of the management of Science and the IPR's. In this context it was suggested that the faithful and proper use of the IP system requires a better understanding, not excluding them. Understanding property rights in a scientific world requires further discussion particularly at the interface of basic and applied research.
- Codes for Commercial approaches would be helpful and provide for greater understanding and information sharing. In a general sense, the CBD has created a bilateral relationship environment which is familiar to the Science and Commercial sectors.

Trust building is critical

- Trust is a crucial aspect. It is essential to develop the necessary trust that will support both basic and applied research so that we can better understand, protect, sustainably use, and benefit from biodiversity. In this context, trust equals traceability, transparency, and tractability.
- There is a need to build and maintain trust with partners and governments as well as facilitating exchange of specimens and information. Therefore, scientists and policymakers need to engage each other in informed communication and practical cooperation to meet the objectives of the CBD.
- To build trust, regulatory processes need to be transparent, simplified, and with low transaction costs to enable increased research which provides benefits to the host country. All countries should review their processes for research permits, import permits, collection permits, export permits to rationalize and streamline their processes. In addition, rules and regulations need to be tractable.

In addition to these observations, the importance of traditional knowledge, the problems concerning the interpretation of the term like “benefit-sharing”, the relevance of capacity-building and the importance of distinguishing between different “kinds” of access to biological material were also voiced.

In sum, the above mentioned observations within the side-event clearly demonstrate that there is a need for a continuing dialogue to give the scientific community an opportunity to express their opinion as it relates to the on-going discussion for international agreements relevant to modern biotechnology, such as the ABS negotiations. It is important to increase awareness about these negotiations and their potential influence on scientific work. It is also of crucial importance to keep the scientific community informed and motivated to contribute with their point of view to such an important issue having a direct impact on their research work.

NEEDS AND OPTIONS FOR ABS IMPLEMENTATION IN AFRICA: RECOMMENDATIONS OF THE “REGIONAL ABS CAPACITY-BUILDING WORKSHOP FOR EASTERN AND SOUTHERN AFRICA”

**Dutch Directorate-General for International Cooperation (DGIS),
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH**

The Regional ABS Capacity-Building Workshop for Eastern and Southern Africa, held from 2 to 6 October in Addis Ababa, Ethiopia, was attended by 50 participants of 15 different countries. The workshop took place at the Institute of Biodiversity Conservation (IBC). The meeting opened the possibility for a real multi stake-holder dialogue: As pointed out by many of the participants, this was the first time that representatives of local communities, NGOs, national legislation, science and politics reached the objective to talk with each other and not about the others on ABS. In several working groups a broad range of cases of bio-prospection and biopiracy were presented geographically wide spread and with a large variety in content concerning different aspects of ABS. Furthermore, drafted and implemented legislations on ABS in Eastern and Southern Africa have not only been introduced to the participants but it was also discussed how far these examples match the needs and requirements of the different stakeholder groups. For the full documentation of the workshop refer to www.abs-africa.info.

The side event Needs and Options for ABS Implementation in Africa was organized to review and discuss the results and recommendations of the Addis-Workshop. Of the altogether 450 delegates of the Granada meeting, around 60 participants attended the side-event, among them representatives from national governments, UN agencies, intergovernmental (such as IUCN) and non-governmental organisations, indigenous and local community groups as well as academia and industry. The side event, which announced and presented for the first time the Dutch-German ABS Capacity-Building Initiative for Africa by DGIS and GTZ was structured as follows:

INTRODUCTION

Background of the Addis Workshop by Felix Hoogveld, DGIS

- ABS situation with focus on Africa
- Capacity-building requirements
- Goals of the workshop in Addis Ababa
- Objectives of the capacity-building initiative

PRESENTATION OF AN EXEMPLARY BIOPROSPECTING CASE AND A NEW LEGISLATION CASE

- Research and Development of Teff in Ethiopia, by Dr. Girma Balcha, Institute for Biodiversity Conservation (IBC)
- ABS Legislation in Kenya, by Anne Angwenyi, National Environment Management Authority (NEMA)

Both presentations are available at www.abs-africa.info/followup.html.

RESULTS

- Recommendations of the Addis Ababa Workshop, by Prof. James Seyani, National Herbarium and Botanical Gardens of Malawi

The recommendations—see UNEP/CBD/WG-ABS/4/INF/9 (www.biodiv.org/doc/meetings/abs/abswg-04/information/abswg-04-inf-09-en.pdf) for the full text—cover a broad range of issues, such as:

- the need for national ABS-regulations and support for drafting as well as implementing
- cross border resources requiring regional harmonisation and coordination
- the need for clear definitions
- the importance of stakeholder participation and benefit-sharing
- the need for transparency and accountability including code of conducts / ethics
- the relationship of traditional knowledge and science
- capacity-building needs at local, national and regional level
- the need for cooperation among stakeholders in capacity-building
- information needs about the status of biological resources and resource accounting gaps
- the role of NGOs in the commercialisation of biological/genetic resources
- the link between civil war situations and the loss of biodiversity as well as biopiracy.

DISCUSSION WITH PARTICIPANTS ABOUT ADOPTION AND APPLICABILITY OF THE RECOMMENDATIONS

Moderated by Dr. Andreas Drews, GTZ

The discussion round generally gave a positive feedback on the capacity-building efforts undertaken. Specific issues raised were inter alia to broaden the initiative to a participation of West African countries, and to actively involve other partners such as industry. In this context shape and structure of further workshops and trainings of the Dutch-German ABS Capacity-Building Initiative for Africa were discussed. This discussion had a follow-up during the coordination meeting of the African Group on 2 February 2006, where the initiative was presented to all African delegates.

Additionally first interviews were held in order to get a more detailed feedback on the adoption and applicability of the elaborated Addis Ababa recommendations as well as an identification of country specific ABS capacity-building needs. Suggestions out of these talks were used for further surveys on this topic—questionnaires have been already sent to representatives of all African countries.

The outputs of the Addis Ababa Workshop, the feedback from Granada as well as the results of the questionnaires will be presented and discussed at a side event at COP 8 in Curitiba, Brazil.

We are looking forward to a broad participation in this side event in Curitiba to conjointly with the African delegates further develop and shape elements of the Capacity-Building-Initiative. Invitations to the side event will be sent out soon.

RESULTS FROM THE INTERNATIONAL EXPERT WORKSHOP ON ACCESS AND BENEFIT-SHARING CO-HOSTED BY NORWAY AND SOUTH AFRICA

**Ministries of Environment, Foreign Affairs and Food and Agriculture of Norway
Department for Environmental Affairs and Tourism of South Africa**

BACKGROUND

The International Expert Workshop on Access to Genetic Resources and Benefit-sharing was co-hosted by Norway and South Africa (the Ministries of Environment, Foreign Affairs and Food and Agriculture of Norway and the Department for Environmental Affairs and Tourism of South Africa). It was co-chaired by Ms. Maria Mbengashe of South Africa and Ms. Birthe Ivars of Norway.

The purpose of the workshop was to contribute to the ongoing negotiations of an international regime on access and benefit-sharing under the Convention on Biological Diversity (CBD) and create a better understanding on the relevant issues, by bringing together government representatives, experts, indigenous peoples' representatives and stakeholders involved in ABS issues. The workshop was held as in response to paragraph 7 of Recommendation 3/1 of the third meeting of the Ad hoc Open-ended Working Group on Access and Benefit-sharing, which encouraged Parties to hold regional and other meetings to exchange views on, inter alia, the process, nature, scope, objectives and elements of an international regime (IR).

EMERGING ISSUES FOR FURTHER CLARIFICATION AND ELABORATION

The following issues were identified at the Workshop as requiring further clarification and elaboration in the negotiations of an international regime (IR) on ABS:

OBJECTIVES

There is a need for a clear focus with regard to the objective of the international regime.

The link between benefit-sharing and the other two CBD objectives of conservation and sustainable use of biological diversity needs to be kept in mind throughout the development of an international regime.

SCOPE

The rapid technological change in biodiscovery research and development has to be taken into account in the development of the international regime. A growing interest in bio-prospecting activities as regards marine genetic resources in the high seas and the seabed beyond national jurisdiction could be foreseen as a result of this.

Consequently, there is also a need for a common understanding of concepts and terminology relevant to the regime. The genetic resources to be included in the regime have to be defined, including the question of traditional knowledge and derivatives. Pre-CBD material

and marine genetic resources beyond the limits of national jurisdiction were identified as challenges to be addressed within the negotiations of a regime.

STRUCTURE

The overarching structure of an international regime on ABS was discussed. The following was highlighted:

- The IR should support and strengthen national legislation and implementation in both user and provider countries.
- The mutual supportiveness and complementarity of an IR and existing international legal instruments and processes (ITPGRFA, WIPO, TRIPs Council etc.).
- The possibility of an umbrella instrument to address cross-cutting issues such as certificates of origin/source/legal provenance, capacity building/technology transfer, compliance issues, and dispute resolution.

ELEMENTS

There was a call for narrowing down the list of elements in the report from the 3rd meeting of the Working Group on Access and Benefit-sharing. The focus in the negotiations should be only on issues that need to be addressed at the multilateral level. In this context the following elements were raised:

- The development of International Certificates of origin/source/legal provenance as a means to track the origin of genetic resources across national boundaries. It was also considered as a possible means to ensure transparency and provide a guarantee that legal requirements in the Country of Origin or provider have been fulfilled. The Workshop recognised that progress was made in this area through the research on a system of virtual certificates of origin and provenance initiated recently in Australia. The Australian example is a Web-based inquiry tool to enable an inquirer to obtain key information about the provenance of a sample and terms and conditions under which it was collected (confirmation of PIC and MAT). Samples of material collected under a permit is given a unique identifier that could travel with the material. There are lessons to be learnt from this research.
- Disclosure requirements in patent applications were identified as possible elements and some existing national IPR regimes were referred to (Costa Rica, Venezuela, 486 Andean pact, Egypt, India, Denmark, Norway etc.). The proposal at the international level by the European Community and its Member states to WIPO with regard to disclosure of origin or source of genetic resources and associated traditional knowledge was presented. Several initiatives were referred to in the TRIPS Council by India, Brasil etc. The question is whether disclosure requirements would support ABS arrangements more effectively if they were part of both national laws and the international IPR regime.
- The question of notification provisions from users before patent applications are filed was also raised.
- It was recognised that there are several kinds of benefits to share, both monetary and non-monetary benefits. What is needed are components of a credible system to capture and share benefits. The development of standard benefit sharing provisions should be considered (default contract).

- In developing benefit sharing mechanisms, also other than bilateral means could be discussed. A reference was made to multilateral funding mechanisms for material of unknown origin (e.g. the multilateral system developed under the ITPGRFA).
- In developing Material Transfer Agreements (MTAs) lessons can be learned from the development of Standard MTAs for plant genetic resources (ITPGRFA) and the possible use of “shrink-wrap” and “click wrap” agreements. The use of a Uniform Biological Material Transfer Agreement was referred to as another possibility.
- There is a need for triggering mechanisms for PIC and MAT given the complexity of bio-prospecting.
- Check points at various stages in the ABS process are needed in order to protect the rights of providers of genetic resources.
- Measures to be taken at the international level to support recognition and realisation of the rights of indigenous and local communities by national governments in the ABS process, including in PIC and benefit-sharing arrangements.
- Capacity-building and technology transfer were identified as elements of an IR.
- The development of compliance and enforcement mechanisms for PIC and MAT and for the enforcement of national legislation is necessary. Possible elements:
 - Legally binding commitment from the user/user country to comply
 - Access to justice
- Dispute resolution such as arbitration were identified as means to settle disputes between parties:
 - Binding/voluntary
- Need to address critical issues for providers and users such as the creation of a mechanism under the CBD for industry involvement.

All proposed measures should be judged against feasibility, practicality and costs.

A more detailed report of the Workshop is available at the following:
<http://www.norsafworkshop.com>.

THE ABS MANAGEMENT TOOL

Swiss State Secretariat of Economic Affairs

Switzerland organized on January 31 a side event to present the project financed by the Swiss State Secretariat of economic affairs (Seco) on the Access and Benefit Sharing Management Tool (ABS MT).

The overall goal of the ABS MT is to provide practical guidance for both providers and users of genetic resources over the full range of ABS activities and build confidence and seek mutually beneficial relationships between providers and users of genetic resources. Partners include the IISD and an advisory committee composed of representatives of industry, indigenous people, NGOs and governments. The ABS MT project is divided into 2 phases. The first phase, which entails the elaboration of a draft management tool was finalized at the end of 2004. The second phase consisting of selecting field studies in developing countries for testing the practicability of the draft management tool is in development.

The ABS MT was presented to about 35 participants at the side event. The English and Spanish versions of the ABS MT were distributed at the entrance. A power point presentation was made, which pointed out the different components of the ABS MT, such as the practice standards and the management process framework. An example of a practice standard was presented in detail with the instrument supplied in the ABS MT like the core commitment related to the practice standard, the guidance, the documentation and reporting and finally the challenges related to the implementation of the standard.

The next activities of the project, like the real world testing and self testing of the ABS MT by stakeholders as well as the improvement and revision of the ABS MT were presented to the audience.

Concerning the participation, there was a good mixture of participants coming from developing country, governments and companies. Issues raised by participants included the need for a simplified and practical instrument. The audience also identified the need for the ABS MT to provide guidance on how to understand the legal requirements of countries where access is sought. The companies present showed a real interest for the tool.

At the presentation at side event by BIO on the bio guidelines on bio-prospecting the following day, Jorge Cabrera, member of the ABS MT project team, made a presentation on the ABS MT focusing on its role in building trusting relationships. The BIO event offered good insights into company motivations for having clear guidance on facilitating access through good practices and to avoid claims of biopiracy. Arrangements were made with BIO representatives for follow up discussions in Washington and Canada on a possible linkage of the BIO guidelines to the ABS MT.

Françoise Salamé, seco, February 2006

THE SWISS MANUAL ON GOOD PRACTICE FOR ACADEMIC RESEARCH

Swiss Academy of Sciences
Swiss Federal Office for the Environment

The purpose of the manual “Access and Benefit Sharing - Good practice for academic research on genetic resources” is to inform the academic community about the system governing access to genetic resources and the sharing of the benefits arising from their use and to explain the steps that must be taken when accessing biological resources for research purposes.

An inquiry within the Swiss academic community revealed that academic researchers are not aware of the problems involved here and that they do not have sufficient knowledge of the ABS system to apply its rules in their research. Researchers are primarily interested in doing their research and are not experienced in the conclusion of contracts. Their main goal is to have good, scientifically sound results within the planned schedule and within the allocated budget. Also in the cooperation with providing countries difficulties in accessing genetic resources, including for basic research, were reported. Therefore researchers may be reluctant to engage in research in non-industrialized countries because access is complicated and may be expensive.

So the objective of the Good Practice is to create transparency and thus a basis for mutual trust between providers of genetic resources and academic researchers. The ultimate goal is to foster win-win situations through the generation of benefits for researchers and providers.

Accordingly, the manual provides general background information on the ABS system, the explanation of the terminology, checklists on PIC, MAT and benefits, FAQs and useful links.

It explains the requirements of the ABS system on the basis of selected case-studies. A standardized research procedure is then made congruent with the requirements of the ABS system.

The core messages are that PIC, MAT and Benefit Sharing are issues to be taken account of throughout the research process; that the step between basic research and R&D— and in particular the transfer of the results to another institution - must be covered by the PIC (if necessary by a second PIC and MAT), and that there is a great amount of non-economic benefits in academic research that may be of interest for the providing countries.

LESSONS LEARNED

- ABS is a politically very sensitive issue, both in the South and in (the academic community of) the North. Incentives for the application of the system must be created and capacity building is necessary for researchers and institutions both in the North and the South.
- Complicated or restrictive and costly access procedures are difficult for academic researchers to cope with. It is therefore necessary to integrate the viewpoint of academic research in the further deliberations on the international regime and to find adapted solutions for creating win-win situations for academic research in both, provider and user countries.

REVISING THE ABS REGIME: CAN IT MINIMISE GENETIC RESOURCES CLAIMS AND CONFLICTS?

CHAired BY:

John Herity, IUCN Canada (Contact: www.iucn.org/places/canada)

PRESENTATION BY:

Tomme Young, IUCN Environmental Law Centre
(Contact: www.iucn.org/themes/law/abs)

This side event presented the results of an in-depth research project examining various aspects of ‘misappropriation of genetic resources.’ This work was commissioned by the **CBD Secretariat**, and enabled through the financial support of **Environment Canada**, additional contributions of personnel and logistical/overhead costs were made by **IUCN-Canada**, and by the **IUCN Environmental Law Centre**, through The ABS Project (funded by BMZ.) This report was entitled “Analysis of Claims of Unauthorised Access and Misappropriation of Genetic Resources and Associated Traditional Knowledge,” and was an INF document in the meeting (see ‘Further Information’, below)

PRESENTATION:

The only formal substantive presentation in this side event was by the report’s author, who began by noting the overall objective of the various research efforts: to examine potential answers to the question: *How does a legal regime addressing formal and/or commercial transactions and relationships become ‘functionally effective’?*¹ In order to answer this, the practical and legal issues and objectives of the regime must be clearly and unequivocally known. Then the motivations and objectives of each of the participants² in the ‘commercial transactions and relationships’ covered by the regime must be examined. From this basis, the functional components of the regime can be identified and a system can be conceived and implemented that enables all participants to understand what they must do or contribute in order to get what they need from the regime. Where that integrated system is worth the effort for all parties, the regime will function.

The present study examines one aspect of the stakeholder motivations regarding activities covered by the regime. It examines a wide range of “claims” of misappropriation, from the perspectives of the claimant and the person/entity against whom the claim is made. It asks two questions:

- How is the existing international regime (as applied and enforced) impacted by misappropriation?
- How can the present negotiations resolve these controversies, so that the resulting international regime will be able to functionally recognize, avoid and address misappropriation?

1. Much controversy over whether the regime should be ‘binding’ arises from a misunderstanding of what ‘binding’ means in regard to legal instruments. The author uses the term ‘functionally effective,’ which is a better legal description of the deficiency in the present regime.

2. In ABS, the “participants in the regime” would include both user and source countries, as well as the commercial entities, researchers, landowners, rightholders, and middlemen who participate in the work.

Based on these goals, the study viewed ‘claims of “misappropriation” and “unauthorised access” to include any genetic resource claim that might be practically addressed, resolved or enforced under the international regime (if the negotiations focus on the relevant issues.) In other words, it began with the question “What kind of issues/claims can the ABS regime address?” In order to ensure that all relevant claims were considered, the report was fairly broad in answering this question. All claims that are potentially considered ‘Genetic resource’ use were included. For this purpose, the utilization of genetic resources was felt to include (or possibly include) some or all of the following:

- Application of **modern genetic technologies** (These activities appear to be ‘utilisation of genetic resources’ in all views);
- Synthesis of **biochemical formulas** from wild and traditionally derived subspecies and varieties (Based on legislation in many of the countries that have adopted national legislation on ABS, these activities seems to be ‘utilisation of genetic resources’);
- **Conventional development** of agricultural varieties (cross-breeding and hybridization) (It is less clear whether these are intended to be covered by the ABS regime);
- Use of conventional legal tools (e.g., patent, trademark, research permits, CITES permits, etc.), in a way that violates conventional law or extends these tools beyond their normal use. (These activities sometimes are or involve ‘utilisation of genetic resources’)

The study examined both ‘public’ and ‘non-public’ sources of information on claims, The presentation included statistical material on claims, based on the results of this research (see “Further Information” sheet, attached.) It concluded with a few issues which the negotiations could resolve :

1. Inconsistencies in understanding: The vast majority of claims identified and analysed in this research are based on misunderstanding or lack of consensus between source, user, and other affected parties or countries in certain ‘grey areas’ of ABS, including
 - the nature/definition of ‘genetic resources’ and ‘utilisation of genetic resources’
 - the nature and timing of ‘access’
 - the means and possibilities of detection of misappropriation
 - the existence or need for ‘user measures,’ in order to enable ABS implementation.

Without a shared understanding of these and other primary operational issues, the ABS regime will not be able to create ‘legal certainty’ for either users or sources, nor can claims of misappropriation be resolved or avoided. Coming to some legal understanding of the nature of these terms, regardless of which choice is made, will enable all sides to know with certainty what ABS agreements and obligations need and require.

2. Inconsistency in objective: Noting that patent/IPR claims are substantively different in all respects from ABS claims, it questions whether the ABS regime can or should attempt to address basic principles of IPR law. Although they should develop with awareness of

one another, the negotiation of the ABS regime need not directly address/impact the negotiation of the IPR regime.

3. The Information Challenge: As in any commercial situation, there are many reasons why the parties might not want to make information about their transaction available to public sources. Other sources, including IPR databases, are virtually unusable as methods of gathering information, unless a particular claim is already known. Moreover, public sources of information (even where information is formally collected or accepted by government agencies) is not verified, regarding either scientific or administrative issues, and no source uncovered in this research regularly obtains and publishes all sides of a particular claim. This informational challenge was faced in compiling this Report, but will also affect negotiations as well as potential monitoring, oversight and enforcement of ABS contracts.

DISCUSSION:

The remaining hour of the side event focused on discussion. Virtually all stakeholder groups involved in the ABS issue were represented, and an unexpected level of agreement was obvious regarding basic conclusions that the ABS regime has the potential to eliminate misrepresentation claims, and enable more effective and streamlined access to genetic resources. A number of potentially useful considerations for a regime were raised by participants, including:

- Clear agreement on uses covered by ABS and rights and duties of users, researchers, government agencies granting access, other rightholders, and user countries.
- a technical document (Annex under CBD Art. 30) specifying legal standards, and enabling clear legislative and contractual adoption;
- User country mechanisms that specifically, (i) promote benefit-sharing, and (2) provide access to justice and other support to source countries and other groups; and
- Incentive systems that inexorably link ABS compliance with commercial and other benefits

SAFEGUARDING TRADITIONAL KNOWLEDGE: A GUIDE TO MEDICINAL PLANTS IN NORTH AFRICA

IUCN Centre for Mediterranean Cooperation

IUCN—The World Conservation Union has been working on a programme linking traditional knowledge and poverty alleviation in North Africa. One of the outputs of this programme is “A Guide to Medicinal Plants in North Africa”, which was compiled by a group of experts in an effort to conserve and promote traditional knowledge of local communities and increase awareness of endangered and threatened plants. This Guide was launched during the IV Meeting of the AD HOC Open Ended Working Group on Access and Benefit Sharing, which is taking place in Granada. The IUCN programme in North Africa was supported by The Swiss Agency for Development and Cooperation (SDC).

North Africa has one of the oldest and richest traditions associated with the use of medicinal plants. Medicinal plants are important for the people of the region, especially in rural areas, as in many places, they are the only source of medicine available. Even in many urban areas, the prices of modern medicines are increasing, and people are turning back to traditional plant remedies.

The demand for medicinal plants is currently increasing in both developed and developing countries, because of their accessibility and affordable costs and the growing recognition that natural products have fewer side effects. Therefore a number of important plant species have become scarce in areas where they were previously abundant and some species may become threatened with extinction, if their collection and use is not regulated.

The theme of medicinal plants was a good entry point for biodiversity conservation and was relevant to most countries in North Africa. The scientific work of the Programme provided ample knowledge on methods to germinate, propagate, transplant and cultivate the plants, therefore providing an alternative to their collection and decline from the wild.

Wild natural resources bring important benefits, but these are often unknown. The forms of uses are often varied and depend on local knowledge, which is based on traditional techniques linked to local identity. The majority of the material which is found in this Guide was collected through a long process of interviews and information gathering from the Bedouin communities and herbalists who still possess the information, and transfer it from generation to the other through word of mouth. This Guide will help in safeguarding this knowledge for future generations as well as ensure it is available for further investigation and research.

The IUCN Programme in North Africa tested conservation and related income generating activities in the field that now offers a strong potential for larger scale implementation. The Programme has developed pilot production models for a wide array of medicinal plants that have a sustained demand at the national, regional, and international levels.

The background knowledge gained on medicinal plants through their cultivation and the compiling of the Guide on Medicinal Plants should be used further to build synergies with the various international processes and multilateral environmental commitments.

MORE INFORMATION ON THE NORTH AFRICA BIODIVERSITY PROGRAMME:

<http://iucn.org/places/medoffice/nabp/index.html>

For further information, please contact:

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COMPLIANCE AND ABS RESULTS FROM THE THIRD PARIS ABS ROUNDTABLE, NOVEMBER 2005

The ABS Governance Program¹ UNU-IAS, IDDRI, CDPD

PARTICIPANTS :

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International ABS governance involves a wide range of issues including access to genetic resources and associated traditional knowledge, fair and equitable benefit sharing, transfer of technology, intellectual property rights, prior informed consent, contracts, enforcement and access to justice. Effective international governance requires national authorities, individuals, commercial enterprises, research institutions etc, to comply with national and international legal obligations. It also requires measures to ensure that countries of origin, indigenous peoples, and local communities, as well as other rights holders are able to secure respect for and protection of their rights, including when used in foreign jurisdictions. This presumes the existence of mechanisms capable of providing redress in the event of a breach of rights. International governance must also ensure that scientific or commercial users from non-party countries do not unduly benefit from actions which would, if carried out within the territories of the parties to the regime, be subject to criminal or civil sanctions.

Compliance occurs at a variety of different levels, including compliance with requirements to implement international legal obligations; compliance with national, regional and international law and policy on ABS; compliance with contractual obligations; and obligations to comply with the property and human rights of local and indigenous peoples with regard to their resources and traditional knowledge. Monitoring and enforcing compliance, therefore, implies the need for a range of different measures designed to meet relevant obli-

1. The ABS Governance Program is a collaborative research and outreach program established by the Biodiplomacy Initiative at UNU-IAS, IDDRI and CDPD to provide the opportunity for reflection and debate on cutting edge issues relating to international ABS governance in an informal setting. Future research activities to be carried out in relation to the program will be focused upon forthcoming workshop and roundtable themes. In this manner it is hoped to both inform events organized as part of the program and provide an opportunity for critical review of research results. One of the principal aims of the program is to bring together participants from the international negotiation processes and academic experts frequently absent from the political debate. The organizers are supported in the guidance of Program activities by a steering committee, drawn from among a range of stakeholder groups, and are seeking to ensure the best possible mix of participants and methodologies with a view to providing optimal setting for discussion of cutting edge issues relating to ABS governance issues, with a view to informing and facilitating international negotiations and implementation of ABS law and policy. For more information on the ABS Governance Program contact: Brendan Tobin, Coordinator, Biodiplomacy Initiative, UNU-IAS, tobin@ias.unu.edu; Selim Louafi, Biodiversity Program Manager, IDDRI, selim.louafi@iddri.org; Tom Dedeurwaerdere (CPDR), Research Director, Biodiversity Unit, CPDR-UCL, dedeurwaerdere@cpdr.ucl.ac.be

gations. With regard to international obligations measures can range from establishment of reporting requirements to sanctions for failure to implement necessary law and policy. Developing measures for securing compliance with ABS law and policy and preventing breach of contracts will need to draw upon both existing international, regional and national mechanisms and special measures designed to overcome the gaps in existing law and policy and its implementation. This is particularly the case with regard to access to justice in foreign jurisdictions.

Amongst the principal reasons leading to calls for negotiation of an international regime on ABS has been the perception that the CBD has failed to realize its objectives in this area due to a lack of mechanisms to ensure compliance amongst actors in the broader bio-economy. This includes lack of compliance by governments with their obligations to adopt administrative, legislative and policy measures to secure technology transfer, inappropriate patent approvals processes, and lack of access to formal and alternative dispute resolution mechanisms. To achieve effective compliance there is a need to go beyond the sometimes artificial opposition to discussion of compliance issues recognising that providers and users, are both actors in the bio-economy. To this end identification of existing collaborative institutional arrangements between providers and users on issues will be relevant for designing measures to secure compliance on ABS issues.

Any international regime on ABS will need to provide measures to assist in bridging the gaps between the realities of providers, in particular impoverished local and indigenous communities and developing countries and those users capable of sustaining protracted legal proceedings over ABS issues. The greatest challenge will be to devise mechanisms which provide for access to justice which is cost-effective and culturally sensitive.

SCOPE OF THE PROBLEM

Prior to commencing the process to define compliance measures it is necessary to address the question of the scope of the problem to be addressed. Amongst the questions which may be asked are:

- What is the extent of non-compliance by Parties to the CBD with their obligations under the convention?
- What is the extent of so-called “biopiracy” and non-compliance by parties to ABS agreements with their obligations?
- Why do companies or users not comply with legal obligations or policy?
- What influences non-compliance—lack of awareness of obligations? Lack of national law and policy? Lack of authorities to grant PIC? Time? A desire to avoid sharing benefits? Or the cost of compliance itself?

Clarifying the problem that compliance/enforcement mechanisms are needed to address is therefore key, as different mechanisms will be more or less appropriate for different aspects of the issue.

During the roundtable three different scenarios relating to resource access and use were considered:

1. Unauthorized appropriation (collection) of genetic material in source countries

The discussions noted that most countries already have complex national laws, permitting and export procedures relating to biological material. However, in most cases these laws are not designed to deal with the specific issue of ABS. As a result they do not control, facilitate or ensure the protection of national or community interests relating to scientific and commercial bioprospecting. It was noted during the roundtable that the problem with securing compliance is as likely to come from the actions of national research institutions and brokers as from foreign companies and researchers. It was also noted that a lack of national law and policy hinders the establishment of an effective global system of governance capable of ensuring compliance with the CBD's benefit sharing objectives.

2. Unauthorized use of genetic resources under valid contract

After they have left the source country resources may be subject to uses which are in contravention of MAT and/or national access legislative provisions.

The debate highlighted the significant difficulties linked to the new trade in genetic resources/Transformation of the life sciences industry. Use of bioinformation is escalating - easier to use, easy to transport, and easy to copy. This has important implications for compliance. Easy transformation and diffusion of information makes it very difficult to track resources and their use. This raises numerous problems for monitoring, control, and redress in cases of unapproved use. Establishing functional tracking systems for tracing resource flows will need to consider the possibility for tracking resources following transformation, including transformation into informational goods. During debate on these issues ideas arose with regard to the viability of establishing some form of international resource fund and tax to cover all uses of resources as a means to avoid the establishment of a complex system to track all resource flows.

3. Failure to pay benefits for authorized uses or contested IPR claims in user jurisdictions

A patent might be sought for an "innovation" that others argue has been discovered, developed and/or utilized by indigenous or traditional communities. One problem is that ownership is often not clearly defined - this is a major issue for compliance. While there is often clarity over ownership of physical resources less clarity exists over the ownership of associated knowledge.

FOR A USER CENTRED APPROACH TO COMPLIANCE

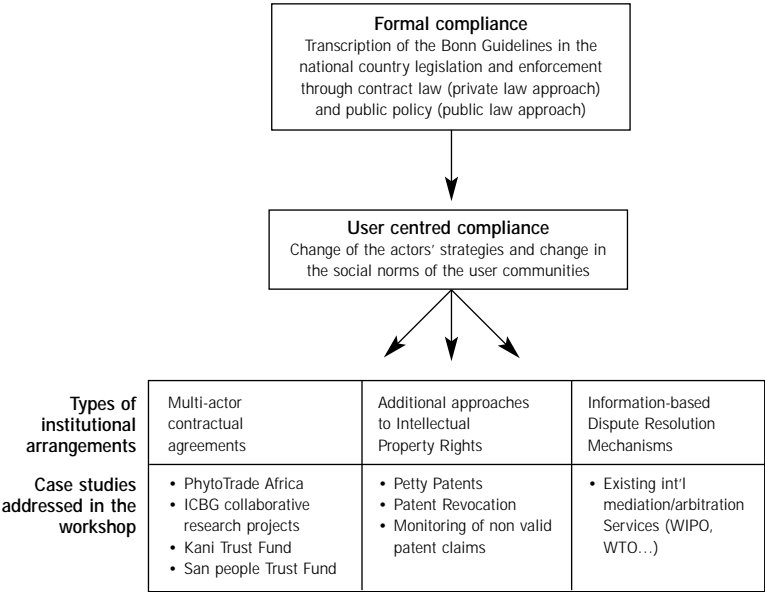
The effort of the Paris Roundtables on ABS Governance has always been to initiate a user centred dialogue on institutional innovation. By shifting from bargaining concerns, to the issues debated amongst the actors of the broad bio-economy, the roundtable wants to provide a different input to the negotiations. From this perspective we see that compliance is as much a matter of well-working institutional arrangements and social norms as it is matter of a formal legal framework. For this reason the roundtable focused on three types of insti-

tutional arrangements that are currently playing a role in the practical contribution of users to effective compliance with the ABS Guidelines: Contracts, Intellectual Property Rights and Alternative Dispute Mechanisms.

In each of these cases, our focus has been on providing a view of the way the actors present at the roundtable assess the feasibility, practicality and cost of these different institutional arrangements as they relate to the compliance issue. The aim of this roundtable was not to close the debate, but to initiate a learning process on the necessary construction of these institutional arrangements.

This roundtable clearly established the fruitfulness of adopting an actor-centred approach to compliance (cf. figure 1 below). As the cases analysed clearly showed, institutional solutions in the field can be found. However, building a common knowledge based on these experiments is clearly a key issue and institutional support for these innovating experiments will be needed to support compliance on a broader scale.

FIGURE 1 : FROM FORMAL COMPLIANCE TO ACTOR-CENTRED COMPLIANCE



THE BENEFITS OF PLANT VARIETY PROTECTION UNDER THE UPOV CONVENTION

The International Union for the Protection of New Varieties of Plants (UPOV)

SUMMARY

The presentation consisted of two parts:

Part I: Benefits of plant variety protection according to the UPOV Convention

Part II: Access to plant genetic resources and benefit-sharing—interface between the UPOV Convention and other International Treaties.

Part I shows that the UPOV system is an effective incentive for plant breeding and results in the development of new, improved varieties of benefit to farmers, growers and consumers. Part II demonstrates that it is essential and possible to implement other international treaties such as the Convention on Biological Diversity in a way which does not impact negatively on the benefits brought about by the UPOV system. The harmonious implementation at the national level of these international treaties is critical for countries bound by these treaties.

Part I: Benefits of plant variety protection according to the UPOV Convention

This part of the presentation is based on a report published by UPOV in December 2005,¹ on the impact of plant variety protection. The report, the first of its kind since the adoption of the UPOV Convention in 1961, includes a study on the effects of plant variety protection in five countries, namely, Argentina, China, Kenya, Poland and the Republic of Korea. The report also includes an overview of the evolution of the UPOV system which is designed to encourage the development of new varieties of plants by granting breeders an intellectual property right on the basis of a set of clearly defined principles.

BENEFITS OF PLANT VARIETY PROTECTION

The report states that the benefits of new plant varieties are many and varied, and include economic benefits, for example through varieties with improved yield leading to reductions in the price of end-products for consumers, or improved quality, leading to higher value products with increased marketability; health benefits, for example through varieties with improved disease resistance or stress tolerance; and even pure pleasure, for example with ornamental plants.

An effective plant variety protection system can also provide important benefits in an international context by removing barriers to trade in varieties, thereby increasing domestic and international market scope. Breeders are unlikely to release valuable varieties into a country without adequate protection such as that provided under the UPOV system. With access to such valuable foreign-bred varieties, domestic growers and producers have more scope to improve their production and to export their products. Moreover, as a con-

1. For the Executive Summary, please visit: http://www.upov.int/en/about/pdf/353_Executive_Summary.pdf

sequence of the breeders' exemption (whereby acts done for the purpose of breeding other varieties are not subject to any restriction) in the UPOV Convention, domestic breeders also gain access to valuable varieties for use in their breeding programs. This international aspect is an important means of technology transfer and effective use of genetic resources, the report notes.

THE ROLE OF PLANT VARIETY PROTECTION

An effective system of plant variety protection offers an incentive for the development of new varieties of plants where there is commercial viability. Such a system also stimulates new breeders and new breeding work and may serve as a basis for more effective breeding work at the domestic level. Where potential commercial markets exist, an effective plant variety protection system can lead to the creation and increased availability of new varieties which allow a market demand to be met which could not otherwise be met by farmers and growers using existing varieties. Where there is no commercial market for a particular crop, but where plant breeding is still considered necessary, breeding may be supported by the public sector. Such a situation in a particular crop should, however, be seen alongside the overall benefits of the plant variety protection system in relation to the availability of improved varieties for farmers and growers in commercially viable crops. In this respect, the system plays a key role in developing the rural economy in a way which helps farmers to break out of the cycle of subsistence farming.

Part II: Access to plant genetic resources and benefit-sharing—interface between the UPOV Convention and other International Treaties.

This part of the presentation explains UPOV's position concerning the access to plant genetic resources and benefit-sharing, which can be summarized as follows:²

- UPOV supports the view that the Convention on Biological Diversity (CBD) and relevant international instruments dealing with intellectual property rights, including the UPOV Convention, should be mutually supportive.
- Since the legislation on access to genetic material and the legislation dealing with the grant of breeders' rights pursue different objectives, have different scopes of application and require a different administrative structure to monitor their implementation, UPOV considers that it is appropriate to include them in different legislation, although such legislation should be compatible and mutually supportive.
- Mechanisms of benefit-sharing should take into account the need for a relationship of mutual supportiveness in respect of the essential principles of the UPOV system of plant variety protection and, in particular, of the breeder's exemption provision.

2. See http://www.upov.int/en/news/2003/intro_cbd.html "Reply of UPOV to the Notification of June 26, 2003, from the Executive Secretary of the Convention on Biological Diversity (CBD)"

PROBENEFIT IMPLEMENTING THE CBD PRINCIPLES ON ABS A CASE-STUDY FROM ECUADOR

VDI Technology Centre

Many regulations and guidelines on ABS exist - but how can these ideas and principles be implemented in practice? The German-Ecuadorian research project ProBenefit is currently developing procedures for a fair and transparent agreement on ABS in the Amazon lowlands of Ecuador (Biosphere reserve “Gran Sumaco”). For this purpose, the project cooperates closely with the national Ecuadorian authorities, indigenous organizations, local communities and a medium-sized pharmaceutical company from Germany.

The following experts from Ecuador and Germany presented the idea and the results of the project:

- Rodrigo de la Cruz, Indigenous ABS expert, Ecuador
- Christiane Ploetz, Coordinator ProBenefit, Germany
- Dr. Axel Paulsch, Institute for Biodiversity, Germany (chair)
- Dr. Mónica Ribadeneira, Legal Consultant, Ecuador
- Dr. Wilson Rojas, Ministry of the Environment, Ecuador
- Dr. Karl Schötz, Dr. Willmar Schwabe Pharmaceuticals, Germany
- Pedro Tanguila, FONAKIN (Federación de Organizaciones de la Nacionalidad Kichwa del Napo), Ecuador

Presentations and Discussion

BACKGROUND, AIMS AND FIRST RESULTS OF THE PROBENEFIT PROJECT

(Christiane Ploetz)

The main aims of the project are

- To implement the ABS principles stated in the CBD.
- To develop transparent negotiation procedures with all relevant stakeholders

The project is divided into two subsequent phases:

- Phase 1: develop transparent negotiations that lead to an agreement on ABS
- Phase 2: plant screening, extract testing

So far, the project has carried out the following activities:

- Socio-political analysis and information campaign
- Analysis of the legal framework (CBD, CAN391, Ecuadorian regulations)
- Exploration of indigenous requirements and options for participation
- Signature of an agreement of cooperation on process development with the regional organisation FONAKIN
- Exploration of the company’s process requirements

A major challenge identified in the course of the project is to find adequate participation structures that reflect indigenous representation in the project area and beyond.

SCHWABE—THE INDUSTRIAL PARTNER IN PROBENEFIT

(Dr. Karl Schötz)

- The German company Schwabe is the industrial partner in ProBenefit.
- Schwabe is a family-owned, phytopharmaceutical company established in 1866. It has approx. 3.200 employees worldwide and a turnover (2004) of 420 Mio Euro.
- Its products are herbal medicines (plant extracts), e.g. from Gingko, St. John´s Worth, Hawthorn.
- The motivation of the Schwabe company to join ProBenefit lies both in the possibility to carry out research on new plants and validate ethnomedicinal effects, and in the opportunity to actively participate in the development of fair and transparent access procedures and to use traditional knowledge in an accepted and legal way.

VISION OF THE PROBENEFIT PROJECT BY THE ECUADORIAN MINISTRY OF THE ENVIRONMENT

(Dr. Wilson Rojas)

In the past, Ecuador has had several experiences with ABS:

- Different “genetic research projects” without authorization and awareness of the Ministry
- Different cases of biopiracy (still under investigation)
- Different limitations (institutional infrastructure)

The Ministry of the Environment appreciated very much the fact that the ProBenefit project approached the Ministry voluntarily and prior to any research activities. The transparency of the process is highly welcomed by the Ministry.

The Ministry of the Environment sees ProBenefit as an opportunity to

- Find a way to work on genetic resources,
- Develop abilities (Lessons learned) through the project process,
- Overcome difficulties (lack of national regulations, legal uncertainties, participation),
- Learn to build up trust between different stakeholders.

LEGAL FRAMEWORK ON ACCESS TO GENETIC RESOURCES IN ECUADOR

(Dr. Mónica Ribadeneira)

- The legal framework for access to genetic resources in Ecuador is based on the Convention on Biodiversity, the Andean Decision 391, the Law about Biodiversity Conservation and the Ecuadorian Constitution.
- Ecuador is currently developing a national regulation on ABS based on these frameworks.
- The process of developing these regulations included an internal phase, and two public phases.
- The draft regulation was handed in to and officially accepted by the Ministry of the Environment (2004), but still has to be presented to the President of the Republic to enter into force.

INDIGENOUS PARTICIPATION IN PROBENEFIT: WHY—AND HOW IT WORKS

(Rodrigo de la Cruz)

Indigenous participation in ABS issues is important for various reasons:

- According to the Constitution, traditional knowledge is a collective intellectual heritage of the indigenous peoples.
- Conservation and sustainable use of biodiversity are linked with traditional knowledge.
- Thus the use of this knowledge has to be based on prior, trustful, clear and complete information.
- The decision to use this knowledge has to be collective and in accordance with traditional customs.

In ProBenefit, indigenous participation is ensured as follows:

- A working group of indigenous representatives is being trained on ABS issues
 - These representatives will communicate the results of the training to the local communities and base organizations in the project region.
 - Local communities and base organizations are consulted in a general assembly.
 - The traditional indigenous structures are respected, e.g. involvement of women.
- One major challenge is the fact that there is no single authority which is representative for all indigenous communities in the area.

THE ROLE OF THE FONAKIN IN PROBENEFIT

(Pedro Tanguila)

The FONAKIN is a regional indigenous organization comprising 13 second-grade organizations and 150 local communities. Its aims are

- to defend the territorial and cultural rights of the indigenous communities,
- to conserve knowledge about traditional healing and intercultural education,
- biodiversity conservation in the protected areas of Antisana, Napo Galeras y Reserva de Biósfera Gran Sumaco

The FONAKIN facilitates and gives guidance in process development, informs communities about collective rights, forms strategic alliances with other organizations and organizes large assemblies and processes of collective decision-making.

In its cooperation with ProBenefit, the FONAKIN wants to

- develop actively a real and good process of information and participation.
- use the opportunity for capacity-building of the local communities on the issue of ABS

DISCUSSION

The presentation was followed by a lively discussion which focused on aspects like information in Ecuador, the role of the different project partners and the challenge to deal with the collective nature of traditional knowledge.

LESSONS LEARNED

In the course of the project, many lessons have been learned that are relevant in implementing ABS strategies, especially if traditional knowledge is involved:

- **It is important to build trust**

Building trust is a vital precondition for ABS projects. Constant dialogue with relevant stakeholders and a transparent information policy are necessary. To reach successful implementation of an ABS project, trust has not only to be built between project partners and stakeholders, but also between different stakeholders.

- **Identification of stakeholders can be time-consuming**

Stakeholders can be NGOs, scientific institutions, national and local authorities, local communities, professional organizations and other organizations involved in ABS issues. In many cases, it takes time and resources to identify the relevant stakeholders and their representatives in a country or project area and to address them properly.

- **Information is a necessary precondition for participation**

The CBD and the Bonn Guidelines stress the participation of indigenous communities if traditional knowledge is involved. Our experiences have shown that there is an enormous demand of local communities to know more about ABS and their opportunities to participate in the process on national and international level. This has to be considered when initiating ABS projects.

- **Finding adequate structures for representation of indigenous participation can be a challenge**

Indigenous participation means that traditional structures of indigenous communities have to be respected. To build a broad consensus within the indigenous community, an adequate level of indigenous representation has to be created. Indigenous organization structures can be complex, and thus require the creation of an adequate and balanced representation of these structures.

THE ANDEAN AMAZON INITIATIVE FOR THE PREVENTION OF BIOPIRACY

The Instituto Alexander Von Humboldt, ECOLEX and Sociedad Peruana de Derecho Ambiental

This side event held during the Ad Hoc Open Ended Working Group Meeting on ABS presented the advances made by the project Andean Amazon Biopiracy Prevention Initiative which is sponsored by IDRC. This project seeks to create a dynamic in the region which generates research, awareness, policy initiatives, partnerships, networking, etc. in regards to biopiracy. The project believes preventing biopiracy should be a component within a broader strategy to ensure biodiversity is adequately conserved and sustainably utilized.

The Instituto Alexander Von Humboldt of Colombia, ECOLEX from Ecuador and Sociedad Peruana de Derecho Ambiental from Peru, each presented short documentaries regarding advances and progress made in the prevention of biopiracy. These documentaries show the different activities undertaken by these institutions at the national and regional levels to confront the biopiracy phenomenon. They include images, interviews and products generated throughout a year and a half of work.

In the case of Instituto Alexander Von Humboldt and ECOLEX from Ecuador, research has been undertaken to identify situations involving biological resources from Colombia and Ecuador and related traditional knowledge. Furthermore, national multisectorial working groups to address this specific issue have also been formed. In regards to the Sociedad Peruana de Derecho Ambiental, the National Commission for the Prevention of Biopiracy has been consolidated and a series of research papers have been published, showing cases where biopiracy may have taken place, especially in the area of patents. Institutional MoU with the Andean Community was also highlighted. Finally, Instituto Sociambiental from Brazil is another partner of this Initiative, and they have undertaken a comprehensive analysis of patents granted in Brazil over biological materials and their implications in the context of biopiracy.

During the side event, discussion focused on how to further create positive responses from governments and stakeholders to the biopiracy issue and how to insert the fight against biopiracy in an international and national policy and legislative context. Ideas were also presented on the problem faced by the International Regime on ABS and bilateral, contractual approaches to the issue of access and benefit sharing. Attention was brought to the need to reconsider an international ABS regime based on the fact that genetic resources are information (DNA) which is shared among a wide range of countries and what is required is a “biodiversity cartel” and a policy and regulatory approach which is based on the economics of information, intellectual property and spatial distribution of species. Bilateral approaches, it was argued, will only be a detriment to countries of origin interests given these contracts will tend to push prices for genetic resources samples down to the marginal cost. A common approach (i.e. through the Megadiverse Countries) would be the most effective mechanism to ensure the equitable and fair sharing of benefits derived from access to and use of genetic resources and related traditional knowledge.

The role of citizens and the need to pressure politicians to respond to their real, true interests was also discussed. In this regards, engagement by civil society in the policy process was critical—for this appropriate awareness was a fundamental aspect. There was also discussion as to how to engage with other regions and trigger similar processes. Some of the critical difficulties encountered by countries refer to the time and capacities (and resources) required to monitor and identify cases where biopiracy may have or may be taking place, whether in relation to intellectual property or through simple physical appropriation and use of resources (including traditional knowledge in some cases). Finally, some discussion focused on the role of new technologies and their impacts on the whole ABS panorama (genomics, bioinformatics, etc.).

Side Events held during WG Article 8(j)

SUI GENERIS PROTECTION MECHANISMS: THE ASIA INDIGENOUS PEOPLES' EXPERIENCE

Asia Indigenous Peoples Pact (AIPP) Foundation

Ms. Lourdes Amos

Asia Indigenous Peoples Pact Foundation (AIPP)

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The Asia Indigenous Peoples Pact (AIPP) Foundation¹ presented two (2) side-events with the intent of conveying concrete experience of indigenous peoples related to pressing issues on 1) *sui generis* protection mechanisms and 2) access to genetic resources related to traditional knowledge, including benefits shared arising from its utilization.

The case experience² topics selected were deemed significant to the agenda items that were on table during the meeting. It was with high hopes that the presentation of actual impacts of the CBD-related agreements to indigenous peoples and local communities would enrich the ongoing deliberations. Moreover, it was envisioned that the event itself provide a venue for various stakeholders to share concepts and exchange ideas towards building a common understanding on the intricacies and impacts of issues at hand. The cases were prepared by indigenous writers and authors who work closely or are themselves members of the respective community and organization.

The conduct of the side-event was made possible through the support of the International Work Group for Indigenous Affairs (IWGIA) and preparation of the case experiences was supported by the Swedish international Biodiversity Programme (SwedBio).

1. *Sui Generis* Protection Mechanisms: The Asia Indigenous Peoples' Experience 23 January 2006, 13:15 – 14:45 PM, Sala Machucha, Level 2

Case 1: A case experience of Indigenous Peoples in drafting legal instruments based on customary practices in Sabah, Malaysia³

The case builds on the experience of the indigenous peoples in formulating a “Community Protocol”. The elements of the protocol were a combination of indigenous customary

1 The Asia Indigenous Peoples Pact (AIPP) Foundation was conceived by indigenous peoples' organisations. It was established in response to the aspiration of indigenous peoples' to create a forum for sharing of ideas and experiences. It is a network organisation that encourages coordination, consolidation and solidarity among various indigenous organisations to advocate and organise campaigns on pressing issues towards advancing the cause of indigenous peoples in Asia. AIPP endeavours to coordinate with other organisations and movements for the realisation of its objectives and aspirations including relating concrete issues of indigenous peoples as a result of implementing policies and agreements at the international, regional and national levels.

2 Term used by the indigenous writers/authors that involves the process of collating actual, direct or objective community experiences as distinguished from the case studies prepared by researchers and other writers gathered from secondary data that renders indigenous peoples and communities as mere subjects. Coming from different perspectives, the conclusions and recommendations may vary from one perspective to the other.

3 Presented by Ms. Haini Tainson, Coordinator of the Community Organising Training Programme of the Partners of Community Organisations (PACOS) Trust and Ms. Jannie Lasimbang, PACOS Adviser and Secretary General of AIPP.

law practices and pertinent legal instruments existing as guidelines, codes of ethics for researchers and other regulatory mechanisms. It was deemed as a significant tool for regulating research activities to prevent bioprospecting and biopiracy. The protocol became widely used among indigenous communities and provided relative capacity to participate in advocating protection of traditional knowledge in biodiversity-related policies and laws.

As a consequence, active participation of indigenous representatives was facilitated in workshops with various government departments and Non-Government Organisations (NGOs) to provide input to the Sabah Biodiversity Enactment 2000 (SBE2000) adopted by the Sabah Legislative Assembly in November 2000. Further noting the need for relevant rules in order that the implementation of the law is realized, the indigenous peoples engaged in training for the drafting of rules, four regional workshops and a “Seminar on the SBE2000 and Indigenous Peoples’ Rights” from June to August 2004. The series of initiatives led to the submission a “Policy Paper on Proposed Rules of the SBE2000” in November 2004 and finally a roundtable discussion on the paper submitted with the Sabah Legislative Assembly, Parliamentarians and the Sabah Biodiversity Centre in December 2004.

Case 2: A Case Experience on Customary Law Enforcement in Mindanao, Philippines⁴

Tangible efforts of the Talaandig People⁵ towards the collective enforcement of customary laws with regards to the protection of traditional knowledge with the view of recognizing and respecting the rights to their resources within the ancestral domain/territory is reflected in this case.

The enforcement of customary laws specifically manifested through the confiscation of 15 bags of botanical specimens collected by researchers of the Philippine National Museum in cooperation with the Botanical Institute of Texas in April 16, 1995 without their prior informed consent (PIC). The offenses related to this act were collectively evaluated as 1) an encroachment of a cultural territory, 2) a violation of customary authority, 3) a transgression of sacred area, 4) a robbery of cultural property and 5) non-recognition and non-compliance to community protocol. The penalty for these offenses was determined in relation to the significance of Mt. Kitanglad⁶ and its resources to the Talaandig people’s spiritual, social, political and economic value.

In conclusion, it is believed that: *“The violation committed by the researchers from Philippine National Museum was not a simple violation of prior informed consent. It was a serious assault against the culture, identity and territory of the Talaandig people”*. In contrary to the usual conviction on penalty, the Talaandig people believe that: *“The pronouncement of the penalty was a call for reconciliation and a measure to restore peace, harmony and balance”*.

4 Presented by Datu “Migketai” Victorino L. Saway, an indigenous leader of the Talaandig People of Bukidnon, Mindanao, Philippines; presently the Secretary General of the United Indigenous Nations of Mindanao (PANAGTAGBO-Mindanao) and a member of the Executive Committee of AIPP.

5 One of the 110 indigenous groups/communities in the Philippines found in the Island of Mindanao particularly in the province of Bukidnon. It has a population of approximately 100,000 inhabiting the towns surrounding the Kitanglad mountain ranges. The Talaandig people have been affected by development aggressions and protected area management implementation.

6 Mt. Kitanglad is located in the Province of Bukidnon, Philippines and declared as a Protected Area under the National Integrated Protected Area System (NIPAS) Act of the Philippine government

II. Country Experiences on Access to Genetic Resources and Benefit-Sharing

25 January 2006, 13:15 – 14:45 PM, Sala Machucha, Level 2

Case 1: Nepal's Case Experience in Formulating National Legislation on Access and Benefit-Sharing and undertaking Biodiversity Registration⁷

The case presented an overview of how indigenous peoples' participation was engaged with regards to the formulation of national legislation on access and benefit-sharing as well as in undertaking biodiversity registration. The process of Nepal's legislations of its biodiversity-related policies and legal tools⁸ started in 2000 with the formation of various committees, sub-committees and projects with members from the different government agencies concerned, including country representatives from the UNDP, IUCN, the industry. The involvement of local government bodies was evidenced by the creation of District Biodiversity Committee composed of the local counterparts of the national government agencies, including other relevant representatives as members.

Upon deeper analysis, a moratorium was demanded by indigenous peoples' groups in 2004-2005, the reasons being; 1) non-recognition of indigenous peoples in the draft bill; 2) the registration of genetic resources associated with traditional knowledge (TK) was started by IUCN and HMG/N without national legislation; 3) the indigenous peoples (IPs) were concerned of the security of the registers of TK; 4) participation of IPs in drafting the bill was not substantive and broad; 5) non-representation of IP Organisations in National/District/Village Biodiversity Committees; 6) the bill being supportive or pro bio-prospecting; 7) non-recognition of collective rights and emphasis on IPR regime as mechanism for protection; and 8) absence of mechanism for benefit sharing.

Case 2: Access and Benefit Sharing: An Examination of TBGRI-Kani 'Model'⁹ and Emerging Issues from the Indigenous Peoples' Perspective¹⁰

Expounded in the case is how the ethno-botanical knowledge of the Kani people¹¹ related to the particular plant identified as 'arogyapacha' (*Trichopua zeylanicus spp. Travancoricus*)

7 Presented by Mr. Parshuram Tamang, Adviser of the National Environment Forum for Indigenous Nationalities (NECIN) and expert member of the UN Permanent Forum on Indigenous Issues (UNPFII)

8 Includes the Nepal Biodiversity Strategy (NBS,2002); Wetland policy; Protected Areas Management; Wildlife farming, research and breeding; Domesticated Elephant Management; Biodiversity Documentation procedures; NBS Implementation Plan (Draft); Access to genetic resources and benefit sharing bill (Draft); Agro-biodiversity Sub-sectoral policy; Biosafety framework (ongoing)

9 Claimed to be unique and post-facto claimed to be the "only known case where Article 8(j) and Article 15 of the Convention on Biodiversity (CBD) was fully implemented. Won the UNDP (United Nations Development Programmes) "Equator Initiative Prize" 2002 for innovation in poverty eradication and sustainable development and is invariably top in the list of case studies on 'benefit sharing' models mentioned in various reports and documents for instance by such organizations as UNDP.

10 Presented by Mr. Kekhrie Yhome of the Naga Peoples' Movement for Human Rights (NPMHR) and written by C.R. Bijoy, an activist involved primarily with the various struggles of Adivasis/Indigenous Peoples locally, regionally and nationally since over two decades; Part of such national initiatives as the 'National Front for Tribal Self-Rule' on the issue of self-governance, 'Campaign for Survival and Dignity' on the issue of forest rights and 'All India Coordinating Forum of the Adivasi/Indigenous Peoples'.

11 The Kanikar (Kani) are people who inhabit the southern part of Western Ghats in southern part of India. The ancestral domain of Kanikars was divided between the two states of Kerala and Tamilnadu for their natural wealth. The states have pushed the Kanikars further to the periphery of further administrative units viz. the districts, taluks and panchayats.

was utilized under a benefit-sharing model. In 1996, Tropical Botanic Garden and Research Institute (TBGRI) obtained production license of “Jeevani”¹² from the Drug Control Department of Kerala thru the codified formulary of the Indian System of Medicine. The Drug Control Act does not however recognize local knowledge. In effect, the product “Jeevani”, based on associated knowledge of *arogyapacha* as collected from the Kanis was explained in terms of codified Ayurvedic formulary that refers “arogyapacha” as *Diwya Varahi*. With this strategy, TBGRI monopolized technology transfer for production and marketing of “Jeevani”. TBGRI later transferred the production technology rights for seven years to Arya Vaidya Pharmacy Ltd. (AVP) for a license fee and royalty fee. At the same time, a process patent for the formula was also filed in India in 1996 but was yet to be awarded. Moreover, an international patent under the Patent Cooperation Treaty administered by the World Intellectual Property Rights (WIPO) was disapproved by the TBGRI Executive Committee due to “paucity of funds”. When the Nutri-Science Innovation, USA, registered ‘Jeevani’ as trademark, TBGRI did not contest this.

Upon completion of the technology transfer, the AVP paid TBGRI Rs. 1,000,000 (about US\$ 22,700) as license fee and a royalty computed at 2% of the ex-factory sales price for 10 years. In 1997, the Kerala Kani Samudaya Trust (KKSS) was established with the assistance of TBGRI as a registered society to receive share in license and royalty received by TBGRI from AVP. KKSS receives 50% of license fee and 50% of 2% royalty fee. In 1999, the KKSS decided to pay about Rs. 30,000 (about US\$ 615) to the two Kani informers in the bio-prospecting. KKSS membership grew from 9 members to more than 1000 members but limited only to the Kerala state. TBGRI remains to be the adviser of the society.

This model is also placed in the specific context of the non-implementation of the laws on land rights in Kerala and absence of even such a law in Tamilnadu, and the violations of rights of Kanis to forests as stipulated in the forest laws and the denial of the rights to self-governance under the Constitution to Scheduled Tribes by these two states. These further make the Kanis disadvantaged to exercise their legal rights to livelihood resources. The new legal regimes in compliance to CBD and TRIPS, rather than recognizing the rights of Adivasis/IPs, further infringes their rights accorded in national and international laws.

In spite of its acclaimed display as a model benefit-sharing arrangement, various issues have been posed upon deeper analysis relevant to benefits accrued in the context of indigenous peoples with regards to genetic resources associated to traditional knowledge. The major issues identified include; 1) there was no mention of the related local traditional knowledge of the Kani people in the patent application, 2) the Kani elders felt that their TK is sacred and should remain exclusive and thus the informers had no right to divulge the sacred knowledge for monetary consideration, 3) critiques from the broader society consider the case as “a global showcase for biological theft” as the Kani people were never consulted and prior informed consent was not implemented 4) in spite of the benefit allotted for the Kani people, it was only limited to the Kanis in parts of Kerala and in effect excluding the Kanis in Tamilnadu and 5) the benefit sharing that emerged was not formalized between the Kani informers and TBGRI.

12 Polyherbal drug contains anti-fatigue, adaptogenic and immuno-enhancing properties sold for Rs. 160 (3US\$) per jar (75 gm.).

On the other hand, there also exist various adverse impacts to the Kani community such as; 1) traders began to move into the forest as the commercialization of ‘arogyapacha’ proliferates, 2) the plant species got further endangered, 3) the use and collection of ‘arogyapacha’ by Kani people became a criminal offense and punishable under forest laws, 4) tissue-cultured cultivation became popular to meet demands of raw materials, 5) the State Forest Department also demanded its share of the royalty from gathering of ‘arogyapacha’.

Conclusions:

The bottom line in identifying best practices and lessons learned in the cases presented are directly linked with the implementation of the decisions of the CBD in “ensuring the full and effective participation of indigenous peoples and local communities”. Furthermore, the experiences concretely imply that the implementation of “full and effective participation” is not only manifested through physical presence but more importantly, complying to principles related to recognition of rights of indigenous peoples to *sui generis* protection mechanisms and access to genetic resources associated with traditional knowledge, innovations and practices.

These principles include, among others:

1. The recognition of the complementary rights of the State and Indigenous Peoples in the management and control of resources within indigenous lands and territories;
2. The recognition of governance rights of Indigenous Peoples to their lands and territories;
3. The compliance to (Free) Prior, Informed Consent (F/PIC) of indigenous peoples and local communities, consequent to the PIC of the Parties or States;
4. The respect and recognition of customary laws, authorities, institutions and processes in defining access to genetic resources associated with traditional knowledge, innovations and practices;
5. The inclusion of non-monetary or non-market based incentives in defining benefit-sharing arrangements;
6. The recognition of indigenous peoples’ rights in cooperation with other international treaties, instruments and human rights obligations with regards to the implementation of the Convention;
7. Formulation of national laws cognizant of and consistent to the rights of indigenous peoples; and *sui generis* protection mechanisms; and,
8. The respect and recognition of non-intellectual property-based (non-IPR) mechanisms for the protection of traditional knowledge.

THE PROTECTION OF COLLECTIVE BIO-CULTURAL HERITAGE

Call of the Earth Llamado de la Tierra (COE) in conjunction with the International Institute of Environment and Development (IIED)

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The aim of this event was to further explore the concept of ‘Collective Bio-Cultural Heritage’, an alternative, more responsive approach to developing international standards regarding access, use and benefit sharing of indigenous traditional knowledge. Collective bio-cultural heritage is described as “knowledge, innovations, and practices of indigenous peoples and local communities which are often held collectively and inextricably linked to traditional resources and territories, including the diversity of genes, varieties, species and ecosystems, cultural and spiritual values, and customary laws shaped within the socio-ecological context of communities”. This event was attended by approximately 30-35 participants.

ELEMENTS FOR *SUI GENERIS* SYSTEMS: COLLECTIVE BIO-CULTURAL HERITAGE AND CUSTOMARY LAWS IN PERU, PANAMA, INDIA, CHINA AND KENYA

IIED, ANDES (Peru), Fundacion Dobbo Yala (Panama), University of Panama, Ecoserve (India), Centre for Indigenous Farming Systems (India), Herbal and Folklore Research Centre (India), Centre for Chinese Agricultural Policy, Southern Environmental & Agricultural Policy Research Institute, Kenya Forestry Research Institute.

Miss Krystyna Swiderska, IIED,+44 207 388 2117, Krystyna.Swiderska@iied.org

“Protecting Community Rights over Traditional Knowledge: Implications of Customary Laws and Practices”—K. Swiderska (IIED). This project was initiated in January 2005, to understand what it means to protect traditional knowledge in accordance with customary laws and practices of indigenous and local communities. It entails participatory research with Quechua farmers in the Potato Park, Peru; Kuna, Embera and Wounaan communities in Panama; Maasai pastoralists and Mijikenda in Kenya; Yanadi tribals in Andhra Pradesh, India; Lepchas in the Eastern Himalayas, India; Adhivasis in Bastar, Central India; and Indigenous farmers in Guangxi, S.W. China. The project does not seek to record the details of customary laws, rather to understand key principles or values that guide use/exchange of TK and bio-resources; customary decision-making institutions and processes; and how knowledge is transmitted and maintained. It is applying the Code of Ethics of the International Society of Ethnobiology.

The concept of ‘Collective Bio-Cultural Heritage’ provides a common framework for the research. This is defined as: “Knowledge, innovations and practices of indigenous peoples and local communities which are collectively held and inextricably linked to traditional resources and territories; including the diversity of genes, varieties, species and ecosystems; cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities.” This concept recognises the holistic character of traditional knowledge, where biological and cultural elements are linked.

Research in all the study communities clearly shows the importance of customary use of biodiversity and ecosystems, cultural practices and spiritual beliefs, and customary laws for the development, use and transmission of traditional knowledge relevant for biodiversity conservation and sustainable use. In many of the study areas TK and biodiversity have declined significantly in the last decade, particularly where access to traditional resources and territories has been reduced. Key reasons for this are: insecure land tenure and reduction of landholdings; alienation from forest resources and management; extension of Government control weakening customary governance; and markets and globalisation eroding traditional values. In order to respect, preserve and maintain knowledge innovations and practices, holistic *sui generis* systems are needed, which protect the rights of communities not only to their knowledge, but also to traditional resources, territories and customary laws.

The project has developed the following working definition of customary laws: “Locally recognised principles, and more specific norms or rules, which are orally held and transmitted, and applied by community institutions to internally govern or guide all aspects of life”. Customary laws have a legal character because they provide the basis for patterns of conduct to which people adhere. People have a duty to respect customary laws, and sanctions are often imposed for their infringement. Customary laws are often closely linked to spiritual beliefs, and based on fundamental values of respect for nature (Mother Earth), social equity and harmony, and common good ethics. Because they are not written down, they are flexible and evolving, and able to respond to the needs of communities.

For Quechua peoples of the Andes, three customary law principles were identified: Reciprocity: what is received has to be given back in equal measure; Duality: everything has an opposite which complements it; behaviour cannot be individualistic; and Equilibrium: refers to balance and harmony, in both nature and society. All customary laws are essentially derived from this principle. Customary law principles of the other communities/countries in the project are very similar, although they may be termed differently (eg. ‘harmony’ instead of ‘equilibrium’). While specific customary laws vary considerably between cultures and ecological contexts, there are strong similarities in the customary principles. National and international *sui generis* systems could be based on a set of common principles. The table below identifies customary law principles related to TK and Bio-resources:

Customary Principle/ Value	Role in Conservation & Livelihoods	Implications for TK Protection & ABS
Collective custodianship & decision-making: Even TK which is accumulated individually is believed to come from God and hence viewed as collective heritage	Promotes biodiversity and TK through sharing of resources/TK and collective management. Ensures access to resources for subsistence and survival. Promotes social cohesion, solidarity and equity.	No single individual can claim ownership of GRs/TK. Individual & commercial rights (eg. IPRs) will erode collective management. Need to recognise collective rights and support subsistence economies. Need to engage neighbouring communities in PIC and Equitable Benefit-Sharing.
Free/ Open Access to GRs & TK: Resources are shared freely, even across borders. The obligation to share is particularly strong in relation to seeds	Ensures access to and maintenance of biodiversity and TK. Critical for survival and adaptive management in biodiversity-based subsistence economies.	Need to safeguard free access to GRs/TK at local level and avoid IPRs which restrict access for customary use. Need transboundary measures to protect TK and safeguard access for customary use.
Equal Exchange (Reciprocity): Resources are exchanged in equal measure	Sharing increases the resource base of those that participate and results in the maintenance of biodiversity	Communities should be given access to GRs held ex-situ in return for providing access to their resources (most ex situ resources originate from their traditional lands)

Sui generis and ABS systems which conform with the obligation to respect, preserve and maintain TK should recognise: 1) The holistic character of TK systems, by protecting ‘Collective Bio-Cultural Heritage’ as a whole. 2) The close linkages between Articles 8(j) and 10(c) 3) The customary rights of indigenous and local communities who are the custodians and stewards of biodiversity on traditional territories, as part of the concept of ‘State sovereignty’ over natural resources.

Customary Law in the Potato Park, PISAQ, Peru—A. Argumedo (ANDES). The Potato Park is an Andean Community Conserved Area managed by six Quechua communities in a

centre of origin of potato diversity. It seeks to protect Collective Bio-Cultural Heritage through *sui generis* systems based on customary law, including collective land tenure, Community based resource management, community registers, protocols for research and ABS. IPRs are designed for a totally different context and responses based on customary laws are needed to protect TK. National laws only protect the intangible elements of TK systems, and provide a rigid framework, whereas the Potato park provides a landscape-based approach which is needed to protect institutions and culture in flexible systems.

Quechua customary law principles are being explored to identify derivatives to address new challenges, such as ABS. The research is focusing on the principle of Reciprocity and norms for distribution and redistribution of wealth to develop an Inter-Community Agreement for Equitable Benefit-Sharing, which will be used for sharing of benefits from the agreement between the Potato Park communities and the International Potato Centre. The benefits include access to potato varieties held by CIP, a share of benefits derived by CIP from use of potatoes collected from the communities in the past, and agreement by CIP not to allow patents on the potatoes. Customary norms included in positive law, such as National Indigenous Law and of the variables that influence the choice of law by communities are also being explored. Different types of reciprocal exchange have been identified and there is a need for further research to ensure Equitable Benefit-Sharing systems strengthen local bio-diversity-based economies.

Knowledge Systems of Yanadi—Dr S. Vedavathy (HFRC). The Yanadi tribals of Andhra Pradesh traditionally lived in forests. New policies have led to forced eviction, alienation from the forest resources and restricted access. This is making them loose their TK about medicines and wild foods, their conservation customs, and their health and food security. Tribals, who once nurtured the forest, now need a permit to collect NTFPs and can be fined for collecting medicinal plants.

Protection of Rice Diversity—J. Nellithanam (CIFS). 23,000 varieties of rice are included in a collection from Madhya Pradesh alone, of which 6,000 are from the Bastar region. These traditional varieties have been developed by indigenous farmers' TK and innovations. However, the collection is held in a university and the communities do not have access. The university has attempted to enter into an MoU with Syngenta to hand over the collection. The State in India offers little protection for farmers rights. National policies are geared only towards promoting scientific and commercial use.

LIVESTOCK KEEPERS' RIGHTS

League for Pastoral Peoples and Endogenous Livestock Development

Dr. Susanne Gura
E-mail: gura@dinse.net
(www.pastoralpeoples.org)

Tom Loquang of the Karimojong pastoralist community in Uganda, and Vivekanandan of SEVA in Tamil Nadu, India, informed about their livestock breeding communities. They advocate Livestock Keepers' Rights as addressed by the Karen Commitment made by 70 representatives of pastoralists from four continents who met at Karen, Kenya, in October 2003:

THE KAREN COMMITMENT

We call on governments and relevant international bodies to commit themselves to the formal recognition of the historical and current contribution of pastoralists and pastoralism to food and livelihood security, environmental services and domestic animal diversity.

We also demand that they recognize the contributions of pastoralists and other livestock keepers, over millennia, to the conservation and sustainable use of animal genetic resources for food and agriculture including associated species and the genes they contain.

Furthermore, we insist that there is international legally binding recognition of inalienable Livestock Keepers' Rights and the Rights of their communities to:

- Continue to use their knowledge concerning the conservation and sustainable use of animal genetic resources, without fears of its appropriation.
- Participate democratically in making decisions on matters related to the conservation and sustainable use of animal genetic resources.
- Access, save, use, exchange, sell their animal genetic resources for food and agriculture, unrestricted by Intellectual Property Rights and [modification through] genetic engineering technologies that we believe will disrupt the integrity of these genetic resources.
- Have their breeds recognized as products of their communities and Indigenous Knowledge and therefore remain in the public domain.

PROTECTING AND STRENGTHENING THE USE OF ANCESTRAL KNOWLEDGE IN COLOMBIA. CASE STUDY¹ INSTRUMENTS OF GOVERNANCE IN ANCESTRAL TERRITORIES OF BLACK COMMUNITIES

PCN-WWF Proceso de Comunidades Negras (PCN) and WWF

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I. Introduction

For many years black communities have been struggling to recover their ethnic, territorial, economic, social, and cultural rights. In Colombia, this struggle is affected by factors such as armed conflict and violence, which have generated massive displacements and hindered ongoing efforts to strengthen the collective rights of black communities, including traditional knowledge. In this context, communities and organizations such as the Black Communities Process (PCN, its Spanish acronym) have focused on developing their own strategies to strengthen the exercise of their governance and improve how they live together in their territories as well as their quality of life.

Although there is an international regulatory framework in place in Colombia on the access to genetic resources, which embraces the protection of traditional knowledge, no specific norms have been issued to protect this knowledge and guarantee that the benefits derived from its use are equitably shared. Notwithstanding, within their own right, black communities and indigenous peoples have developed instruments of governance that have allowed them to apply mechanisms to protect, recover, and strengthen traditional knowledge.

II. Case study: Instruments of Governance in Ancestral Territories of Black Communities: Protecting and Strengthening the Use of the Ancestral Knowledge in Colombia

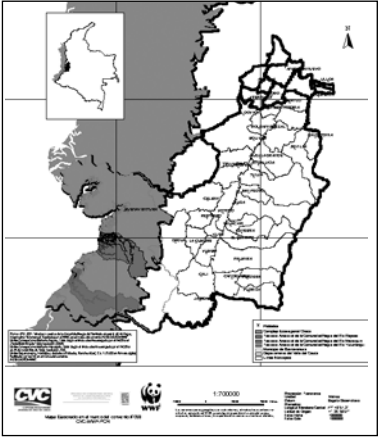
The present case study aimed to “construct a participatory strategy that would help strengthen the use and practice of ancestral knowledge² and protect the natural resources in territories of black communities”. The study was carried out in the Chocó biogeographical

1. The present case study has been carried out in Colombia by the Black Communities Process (PCN, its Spanish acronym), with the support of WWF-Colombia and the Alexander von Humboldt Institute (IAvH, its Spanish acronym) under the umbrella of the project "Endorsing National Actions to Regulate the Access to Genetic Resources and Promote Equitable Distribution of Benefits", financed by BMZ and WWF International.

2. The Black Communities Process has decided to use the concept of ‘ancestral’ knowledge instead of ‘traditional’ knowledge, because, for them, the word ‘traditional’ has a temporary connotation and introduces non-sustainable practices and techniques into natural resource use and management.

eco-region³, located in southwestern Colombia, in the department of Valle del Cauca, specifically along the Raposo and Mayorquín rivers (See Figure 1).

Figure 1. Map of the Department of Valle del Cauca, showing the ancestral territories located along the Raposo and Mayorquín rivers.



It is important to take into account that this case study had, as background, a planning process supported by WWF that addressed the formulation of management plans for the Raposo and Mayorquín territories. In the framework of the present case study, other instruments of governance for the black communities in this area have been developed on the basis of this earlier work: bylaws and a research protocol were also prepared for the two watersheds, and an ethnoeducation strategy was developed. These instruments form part of a process that aims to protect the communities' ancestral knowledge.

1. Preparing the bylaws

Bylaws are a series of norms and procedures that the community has developed based on its cosmivision and cultural logic to monitor and build political and economic autonomy in its territories in terms of conservation of natural and cultural diversity, harmonious living together of inhabitants, and a strengthened multiethnic and multicultural nation.

The bylaws for the Raposo and Mayorquín river watersheds were prepared within the framework of this case study. These instruments aim to exert political, economic, environmental, and social influence within the territory, based on the valuation and conservation of what's theirs. Control is evidenced in the regulation of the communities' present environments, in the maintenance and re-creation of their cultural identity for natural resource use and management, and in the establishment of an orderly and harmonious living together as fundamental bases for envisioning the life project of these communities in their ancestral territories.

3. The Chocó eco-region is a geographical unit that encompasses a group of four eco-regions of humid to very humid tropical ecosystems that extend from the Darién mountains in Panama down along Colombia's Pacific gradient to north-western Ecuador. From a cultural viewpoint, this region is one of the most varied of Latin America and the Caribbean. More than 30 culturally differentiated human groups colonized and helped sculpt this area in pre-Hispanic times.

2. Preparing the research protocol

The case study involved a research protocol proposal, using a participatory approach, as a tool to develop norms and procedures to regulate, control, or restrict research in the ancestral territories of black communities as ethnic group. Research proposals may come from individuals, scientists, universities, thesis students, research institutes, entrepreneurs, or public institutions. It is important, however, not to lose sight of research interests arising from within the communities, which should also be regulated.

The protocol has been conceived as a tool of regional scope and should be used exclusively for research on biological, environmental, or cultural issues. Because the protocol refers to research, communities must have a clear idea of the natural and cultural resources found in their territories, the ancestral knowledge they possess, potential uses of this knowledge and the implications of granting access to this knowledge for research purposes, among other things. This process will enhance the negotiation capacity of communities and allow them to better define and strengthen their position.

3. Ethnoeducation strategy

At present there is a strong tendency worldwide toward the homogenization of cultures around the Western model, where the particularities of ethnic groups are not valued, generating, as a result, a loss of identity, rapid changes of cultural practices, low self-esteem, and self-negation of their essence. Therefore, the case study decided to generate a process of collective reflection, formation, and construction to make ethno-education a reality in educational institutions and the communities they serve, as a strategy to help strengthen ethnic and cultural identity. As a result, schools now serve to dynamize harmonious living together and collective community well-being. This strategy draws from different community initiatives and is based on Law 70 of 1993 and Law 115 of 1994, among other provisions.

The experiences that have been carried out in ethno-education in these black communities have made it possible to strengthen the following elements: the rescue and growth of ethnic identity; the prestige of cultural traditions; the strengthening and articulation of organizational processes; the increased active participation in solving problems faced by the communities; and the contribution of elements in the process of creating awareness about the identity of black communities. They have also helped to structure the ethnic project of black communities.

4. Organizational bodies

To effectively build and apply instruments of governance, the community's organization must be solid and structured. For this reason, in tandem with the designing of the research protocol, the definition of bylaws, and the development of an ethno-education strategy, the status of each community's organizational bodies was analyzed to determine their strengths and weaknesses and establish a strategy that would empower them to apply these instruments with positive results. These organizations represent the community and have control, planning, and decision-making functions. They are divided into three levels, which, in turn, are linked to a national dynamic called the Black Communities Process (PCN, its Spanish acronym).

5. Main outputs

Among the main outputs of the case study, the following should be highlighted:

- Proposal of bylaws for the ancestral territories along the Raposo and Mayorquín rivers.
- Research protocol proposal.
- Ethnoeducation strategy (underway).
- Characterization of food and medicinal plants found within the Raposo and Mayorquín territories and the ancestral knowledge associated with them to determine available resources.

Outputs included:

- Flora inventory: The inventory listed a total of 260 plants known by the communities (138 in Raposo and 122 in Mayorquín). Information provided includes the name given to each plant by the community, a description of its characteristics, and data on its existence or absence within the territory. The analysis indicated that, of the 260 plants listed, 176 are currently present in the territories and 84 have disappeared. Based on this information, the need to repatriate disappeared plants has become evident and will form part of the activities carried out.
- Ancestral knowledge: There is an initial list of 77 community members possessing ancestral knowledge, known as 'sabedores', and 6 examples of generic knowledge. Which is knowledge shared by the entire community, such as midwives, massagers locally known as 'sobanderos', curators of snakebites, medicine men, and witch doctors.

6. Prospects

- Strengthen organizational bodies that represent the community and participate in decision-making processes.
- Promote the application of instruments and mechanisms that empower territories to exercise their own governance.
- Strengthen political unity at the regional level.

DEVELOPMENT OF AN INDICATOR FOR THE DIRECT MEASUREMENT OF THE STATUS AND TRENDS OF INDIGENOUS AND TRADITIONAL KNOWLEDGE

Terralingua

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The side event “Development of an Indicator for the Direct Measurement of the Status and Trends of Indigenous and Traditional Knowledge” was organized by Terralingua, an international NGO devoted since 1996 to researching the links between biodiversity and cultural diversity and producing related studies and policy-relevant tools. Terralingua is currently involved in the 2010 Biodiversity Indicators Partnership and is contributing to the development of indicators in Focal Area 5 of the 2010 Indicators, “Status of traditional knowledge, innovations, and practices”.

The purpose of this side event was to present information on a project undertaken by Terralingua to develop a meaningful and practical methodology for an index that will directly measure the status and trends of indigenous and traditional environmental knowledge (TEK). This indicator will be the first of its kind. Headline Indicator I in Focal Area 5 (“Status and trends of linguistic diversity and numbers of speakers of indigenous languages”) and the various options so far proposed for Headline Indicator II (“Other indicator of the status and trends of indigenous and traditional knowledge”) are proxies, that is, they would provide an indirect measure of the state and trends of TEK. Instead, Terralingua’s indicator will allow for the direct measurement and assessment of the vitality of TEK. It will focus on the process of intergenerational transmission of key components of TEK, including ethnobiological knowledge and traditional resource procurement or processing skills. It will also identify key factors that contribute to the retention of indigenous and traditional knowledge or the loss thereof. The method will be both sensitive to local distinctiveness and applicable at regional and global scales.

In recent years, a number of researchers have begun to develop quantitative measures of different aspects of TEK and its variation in space and time. However, no indicators directly measuring or assessing TEK above a local level currently exist; nor has a method been previously designed that is capable of both providing an appropriate measure of the vitality of TEK in diverse biocultural contexts and of allowing for systematic comparison across local communities, ethnocultural groups, nations, and regions. The proposed indicator will overcome these shortcomings, while drawing from the more promising precedents and leads to design a locally-appropriate, globally-applicable data instrument.

This proposed indicator would well suit the purposes of Headline Indicator II. It will satisfy the criteria established for selection of additional indicators, namely the inclusion of reliable and comparable time-series data and the quantitative measurement of trends. The proposed indicator will focus on rating the vitality status of TEK (i.e. inferrable trends of retention or loss over time) within selected groups and allow for relative comparisons of that status among groups at different scales of inclusiveness. Another intended feature is to measure the vitality status of different thematic domains of TEK, in order to identify which types of knowledge are most vulnerable to change. Priority will be given to measuring knowledge that is directly implicated in sustainable use habits and therefore is logically associated with biodiversity conservation, such as knowledge of key plant and animal resources, resource procurement or production techniques, craft and toolmaking skills, food preparations, curing practices, and others.

This indicator will focus on capturing the trends of retention and loss of TEK at different spatial scales. This will be achieved initially by measuring TEK levels in relation to sociodemographic variables (mainly age or generation, but disaggregations in terms of other variables, such as gender, could also be used). The initial application of the proposed methodology would provide trend information with an average time depth of approximately 50 years (the difference between the youngest and the oldest testable age groups in the respective communities). It would also establish a baseline for gauging and monitoring TEK vitality trends into the future. This would require the sustained application of the method during regular time intervals.

The overall design of the method will consist of three major components: 1) data collection, comprising a standardized instrument or set of operations for collecting primary data in the field and assigning quantitative values to the field data results; 2) data analysis, including formulas for calculating the vitality statistics referred to above at different scales (local, national, regional, global); and 3) implementation strategy, including a sampling design, proposal for implementing the data collection protocol, and data management and reporting procedures. The data collection component of the method will be intended for application at the local or community level and therefore will have to be sensitive and appropriate to local biocultural distinctiveness. An active participating role of community members will be essential: first, in vetting the project and determining the specific content of the local corpus of TEK that they consider to be valid, viable, and valuable; second, in data gathering, entry, and management. The analytical component of the method will be designed for making quantitative comparisons within and across local groups, as well as larger-scale units, and therefore will entail sliding-scale, common denominator forms of measurement.

The project aims to initially formulate a short list of different methodological options, in order to allow stakeholders at different levels, including indigenous and traditional knowledge holders, to have input into the final selection of the methodology that would be adopted and implemented. Therefore, a period of dissemination and consultation, as well as peer/expert review, will be required, leading to the choice of the option that best meets time, cost, logistical, and other constraints. Following the selection of the best option, a series of pilot studies will be conducted to test out the method and develop initial time-series data. The full-scale development of the indicator at the global level will imply primary data col-

lection in a sample consisting of numerous communities in different countries and regions throughout the world. This will require active cooperation and participation of large institutions capable of working in different countries and/or numerous smaller institutions working in single countries, as well as of local holders of indigenous and traditional knowledge.

A rigorous yet easily-read, quantitative-based indicator that directly measures the changing status and trends of TEK will contribute to the CBD's goals of reducing the rate of biodiversity loss in several ways: 1) it will provide a baseline for monitoring future trends in traditional knowledge persistence or erosion at different geographic scales, 2) used in combination with the other indicators, it will provide an instrument for assessing the relationship between TEK and biodiversity conservation, 3) it will allow for a more precise identification of the current and changing states of TEK in different places, 4) by involving local communities in the data-collecting process, it will potentially raise their awareness of the importance of actively maintaining traditional knowledge forms, 5) it will enhance policymakers' ability to target conservation actions to more endangered biocultural situations where such actions are most needed, and 6) it will provide a yardstick for evaluating the results and progress of policy actions, thus contributing to the process of accountability.

LESSONS LEARNED

Useful comments were received during the side event as well as through subsequent contacts with meeting participants. Comments were generally very favorable to the idea and goals of this proposed indicator. Relevant statements were also made by member-state representatives and other participants during the plenaries and working group sessions. This input can be summarized as follows:

- A direct indicator of TEK would be very useful. Although its development would require significant data gathering, this would not be different from any of the other possible indicators proposed for Headline Indicator II, for none of which data are readily available. The proposed TEK indicator would have the advantage of being a direct measure and it would, already at the outset, offer a 50-year trend perspective. The desirability of a direct indicator of TEK was explicitly mentioned by some member-state representatives during the official sessions.
- The indicator should be formulated in such a way as to make it clear that its aim is to assess the vitality of knowledge (process of intergenerational transmission) rather than to assess the content of knowledge per se. This would help address concerns among indigenous peoples and local communities that an indicator of TEK might contribute to misappropriation of TEK content. The purpose of such an indicator is instead to provide information about the state and trends in the vitality of knowledge.
- This information should be of significant value for indigenous peoples and local communities in their efforts to maintain and revitalize TEK. As well, it would highlight the point that the retention of TEK is not only a matter of protection through intellectual property regimes, but is also importantly dependent on the continuity of intergenerational transmission within communities.

- In developing the indicator, it will be necessary to take into account the internal variation of TEK (by age, gender, expertise, etc.), as well as the changing nature of TEK itself, with new forms of knowledge replacing older ones.
- For this reason, it will be important to identify the key factors that may affect intergenerational transmission and knowledge change (acculturation, formal education, etc.).
- The TEK indicator should complement the linguistic diversity indicator by assessing the vitality of ethnobiological vocabulary (names of plants and animals). The language indicator might show that a language is vital overall, but its ethnobiological vocabulary might be eroding, which is specifically relevant to the state of TEK.
- Indigenous peoples and local communities should be closely involved in the development of this indicator, in order to clarify the goals of the indicator and therefore establish trust and generate active participation in data gathering, entry, and management. There should be attention to relevant activities that indigenous peoples and local communities are already carrying out for the maintenance and revitalization of TEK, and particularly to the forms of self-assessment (largely of a qualitative nature) that they are putting in place.
- A well chosen suite of both direct and indirect indicators of TEK would constitute a useful tool for countries to assess progress in promoting the retention of TEK as a contribution to the 2010 Target, while limiting the burden of reporting.
- In order to guide the selection of suitable indicators for Headline Indicator II, it would be desirable to hold a technical workshop, with participation of technical experts as well as representatives from governments, indigenous peoples, international and intergovernmental organizations, and the CBD Secretariat.

INDIGENOUS KNOWLEDGE SYSTEMS AND INTELLECTUAL PROPERTY RIGHTS: AN ENABLING TOOL FOR DEVELOPMENT WITH IDENTITY

The Pegsalabuhan Subanen sa Lakewood Association , International Fund for Agricultural Development (IFAD); World Agroforestry Centre (ICRAF); Western Mindanao Community Initiatives Project (WMCIP); Ipil Development Foundation Lakewood Consortium (IDF)

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The presentation deals with a subset of indigenous knowledge systems called ethnobotanical knowledge. It reports some creative ways in which documentation of ethnobotanical knowledge can be carried out without losing community ownership over intellectual property rights. It also presents the general findings of the documentation, current and future uses of the documented knowledge, and how this knowledge can become an enabling tool for development with a sense of community ownership and self-identity.

The presentation was highlighted with a demonstration of electronic books (stand-alone, user-friendly, self-running software) containing digitally encrypted culturally relevant plants and food crops of the Subanen in southern Philippines.

Paper can be downloaded from:

http://www.un.org/esa/socdev/unpfii/documents/TK_Paper_VSimIFAD_English.pdf

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