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OPEN-ENDED AD HOC INTERGOVERNMENTAL COMMITTEE FOR THE NAGOYA PROTOCOL ON ACCESS TO GENETIC RESOURCES AND THE FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THEIR UTILIZATION
Second meeting
New Delhi, 2-6 July 2012
Item 4.3 of the provisional agenda*

INFORMATION ON AWARENESS-RAISING: SUBMISSION BY THE SWISS ACADEMY OF SCIENCE

Note by the Executive Secretary

1. The Executive Secretary is circulating herewith, for the information of participants in the second meeting of the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access and Benefit-sharing, two publications submitted by the Swiss Biodiversity Forum of the Swiss Academy of Sciences entitled:

(a) Access to Genetic Resources and Sharing of Benefits – ABS Program 2003–2010; and

(b) Agreement on Access and Benefit Sharing for Non-commercial Research.

2. The publications have been merged and are being circulated in the original form and language in which they were made available to the Secretariat.

* UNEP/CBD/ICNP/2/1.

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Science and Policy
Platform of the Swiss Academy of Sciences
Swiss Biodiversity Forum

Ahmed Djoghlaf, Executive Secretary
Secretariat of the Convention on Biological Diversity
United Nations Environment Programme
413 Saint-Jacques Street, Suite 800
Montreal, QC, H2Y 1N9
Canada

Bern, 24 January 2012

Submission regarding CBD Notification 2011-142-abs

Dear Ahmed Djoghlaf

On behalf of the Swiss Biodiversity Forum of the Swiss Academy of Sciences we would like to submit information regarding the CBD Notification 2011-142 on "Request for submissions in preparation for the Second Meeting of the Intergovernmental Committee for the Nagoya Protocol on Access and Benefit-sharing".

In paragraph 2 of the recommendation 1/3 of the first meeting of the Intergovernmental Committee stakeholders are invited to submit information to the Executive Secretary on awareness-raising activities on ABS, including lessons learned from existing experience.

At the Swiss Academy of Sciences we firmly believe that non-commercial public good research is essential to achieve the first two goals of the CBD, the conservation and sustainable use of biological diversity. Moreover it generates (non-monetary) benefits that contribute to education, advancement of science and technology transfer. The Swiss Academy of Sciences advocates research in a mutually trustful atmosphere and encourages scientists to conduct their research in accordance with existing international codes and standards.

On the background of this philosophy and after the adoption of the Bonn Guidelines in 2002, the Swiss Academy of Sciences launched a program on capacity-building and awareness-raising for the academic community in Switzerland. This program was funded, developed and carried out in partnership with the Swiss Federal Office for the Environment.

The program was based on an investigation into the ABS-situation and the state of information within the Swiss research community. The assessment revealed low or insufficient knowledge among researchers about the Convention on Biological Diversity and the obligations resulting from the ABS regime. Yet it also revealed problems of the researchers with complicated procedures when intending to access resources abroad.

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In the course of the program several instruments were developed, such as (1) an awareness raising and capacity-building strategy for academic researchers in Switzerland; (2) a good practice manual for access and benefit sharing for non-commercial academic research; and (3) a sample ABS agreement containing model clauses that is adapted to the interests and needs of both, providers and users of genetic resources.

As our ABS program and its products are in line with measures proposed in the ABS Nagoya protocol, the Swiss Academy of Sciences deemed it useful to share experiences and lessons learned. The attached publication "Access to Genetic Resources & Sharing of Benefits – ABS Program 2003–2010 with Recommendations and a Sample ABS Agreement" was published in 2010 and presented at a side-event during COP10 in Nagoya. This report on the ABS-program 2003–2010 gives an overview of our activities. It describes the instruments and products created and provides information on our investigations. Chapter 4 focuses on Awareness raising and capacity-building. It also includes a section on "lessons learned". Annex 2 contains the sample ABS agreement.
The publication is attached and can be downloaded here: http://abs.scnat.ch/downloads/

It is with great pleasure that the Swiss Academy of Sciences makes this information available to the interested ABS-community. Our wish is to contribute to fruitful cooperations between providers and users for their mutual benefit and for the benefit of biological diversity.

Sincerely

Sylvia Martínez
Science officer, ABS Team

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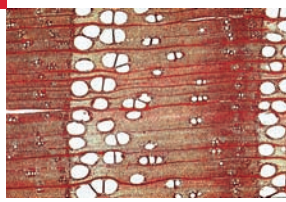

Access to Genetic Resources & Sharing of Benefits

ABS Program 2003 to 2010

with

- Recommendations
- Sample ABS Agreement

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Contents

Foreword

In 2003, after the adoption of the Bonn Guidelines on Access and Benefit-Sharing (ABS), the Federal Office for the Environment mandated the Swiss Academy of Sciences (SCNAT) to develop tools and an awareness-raising program to implement the Bonn Guidelines within the Swiss scientific community.

It is my great pleasure, in this International Year of Biological Diversity, to present the last report resulting from the collaboration between the Federal Office for the Environment and the Academy in implementing the Bonn Guidelines. As the international community moves towards finalizing the establishment of a regime on ABS, I am convinced that the results and lessons described in this report will be of great use to all who are engaged in achieving the objectives of the Convention on Biological Diversity (CBD).

The fair and equitable sharing of benefits arising out of the utilization of genetic resources is one of the three objectives of the Convention. It is also key for achieving the two other objectives: the conservation of biological diversity and the sustainable use of its components. While the technology to study and to make economic use of genetic resources is mainly available to users in industrialized countries, the rich ecosystems that provide these resources often are located in provider countries which lack means to protect their biological diversity. Thus, it is generally recognized that global conservation of biological diversity and its sustainable use will only be possible if benefits from use of these genetic resources are shared in a fair and equitable way with those who have conserved the resources for centuries.

The scientific community certainly has played a crucial role in achieving the objectives of the Convention. Academic research is not only important for a better understanding of the biological diversity itself, but it provides the foundation for innovation and development. Thus the value of genetic resources can be expanded and their benefits shared between those who conserve biological diversity and provide the resources and those who use these resources. Indigenous peoples and local communities that live in harmony with biological diversity are particularly worth mentioning in this context, as their traditional knowledge often guides the scientific communities towards new discoveries.

I would like to thank SCNAT and, in particular, it's ABS-team and all those scientists and policy makers around the world that provided input into this project. The scientific community plays a leading role in implementing ABS in Switzerland and worldwide. It will continue to be an important position of leadership in the future.

Bruno Oberle
Director FOEN

Summary

At the Swiss Academy of Sciences we firmly believe that non-commercial public good research is essential to achieve the first two goals of the CBD, the conservation and sustainable use of biological diversity. Moreover it generates (non-monetary) benefits that contribute to education, advancement of science and technology transfer. The Swiss Academy of Sciences advocates research in a mutually trustful atmosphere and encourages scientists to conduct their research in accordance with existing international codes and standards.

On the background of this philosophy and after the adoption of the Bonn Guidelines in 2002, the Swiss Academy of Sciences launched a program on capacity-building and awareness-raising for the academic community in Switzerland. This program was funded, developed and carried out in partnership with the Swiss Federal Office for the Environment.

The program was based on an investigation into the ABS-situation and the state of information within the Swiss research community. The assessment revealed low or insufficient knowledge among researchers about the Convention on Biological Diversity and the obligations resulting from the ABS regime. Yet it also revealed problems of the researchers with complicated procedures when intending to access resources abroad.

In the course of the program several instruments were developed, such as an awareness raising and capacity-building strategy for Swiss academic researchers; a good practice manual for access and benefit sharing for non-commercial academic research; and a sample ABS agreement containing model clauses that is adapted to the interests and needs of both, providers and users of genetic resources.

The sample agreement is based on an investigation into the situation of providers and users with regard to the implementation of the system. It revealed that scientists are concerned that ABS procedures could prevent their research, including research necessary for the conservation and sustainable use of biodiversity. Providers are concerned that simple procedures are a Trojan horse introducing easy access for commercial research.

The following research into the flow of genetic resources (and associated TK) through the non-commercial research and the research & development value chain analized how the often feared "change of intent" takes place. ABS-sensitive research steps were squared with types of academic research conduct. It revealed that there are considerable differences between fields of research in the handling of the accessed samples and in their – effective or potential – transfer to third parties. These differences open a range of probabilities of uncontrolled transfer. Accordingly, the criterion for granting simple access should not be whether the utilization of genetic resources may ever lead to a commercial product – in the sense of a yes or no – but the degree of probability of this happening. Simple access should be granted in cases with a small probability of commercialization.

As our ABS program and its products are in line with measures proposed in the draft protocol, the Swiss Academy of Sciences deemed it useful to share experiences and lessons learned. The report on the ABS-program 2003–2010 gives an overview of our activities. It describes the instruments and products created and provides information on our investigations. The essence of the resulting insights is laid down in recommendations for the negotiation of the ABS-protocol.

It is with great pleasure that the Swiss Academy of Sciences makes this information available to the interested ABS-community. Our wish is to contribute to fruitful cooperations between providers and users for their benefit and for the benefit of biological diversity.

Résumé

A l'Académie suisse des sciences naturelles (SCNAT), nous croyons fermement que la recherche d'intérêt public à but non commercial est essentielle pour atteindre les deux premiers buts de la Convention de la Diversité Biologique (CDB), soit la conservation et l'utilisation durable de la diversité biologique. De plus, elle génère des bénéfices (non-monétaires) qui contribuent à l'éducation, à l'avancement de la science et au transfert de technologies. L'Académie prône la recherche dans une atmosphère de confiance mutuelle et encourage les scientifiques à mener leur recherche en accord avec les codes et standards internationaux existants.

Se basant sur cette philosophie et après l'adoption des Lignes directrices de Bonn en 2002, la SCNAT a lancé un programme d'information et de prise de conscience adressé à la communauté académique suisse. Ce programme a été financé, développé et soutenu en partenariat avec l'Office fédéral de l'environnement.

Le programme est basé sur une étude de la situation ABS et de l'état des connaissances de la communauté de recherche suisse. L'évaluation a révélé que le niveau de connaissance des chercheuses et chercheurs sur la CDB et sur les obligations résultantes du régime ABS était bas ou insuffisant. Elle a également mis en évidence les problèmes des chercheuses et chercheurs liés à des procédures compliquées pour accéder aux ressources à l'étranger.

De nombreux instruments ont été développés dans le cadre de ce programme, par exemple, la mise en place d'une stratégie afin d'augmenter la prise de conscience et la formation des chercheuses et chercheurs académiques suisses, un guide des bonnes pratiques pour l'accès et le partage des avantages adressé à la recherche académique non-commerciale et finalement, une proposition d'accord ABS contenant des clauses modèles qui sont adaptées aux intérêts et aux besoins des fournisseurs et des utilisateurs de ressources génétiques.

Cette proposition d'accord est basée sur une évaluation de la situation des fournisseurs et des utilisateurs considérant l'implémentation du système. Cette enquête a révélé que les scientifiques pensaient que les procédures ABS pouvaient gêner leurs recherches, y compris dans les cas de recherches dans les domaines de la conservation et de l'utilisation durable de la biodiversité. Les fournisseurs pensent, quant à eux, que des procédures simples sont un cheval de Troie vers un accès facilité pour la recherche commerciale.

L'étude du flux des ressources génétiques (et des savoirs traditionnels associés) dans les recherches à but non-commercial et les processus de recherche et de développement a analysé à quelle fréquence les «changements d'intention» avaient vraiment lieu. Les étapes de la recherche sensibles au thème ABS ont été adaptées en fonction des différents types de recherche académique. Cela a mis en évidence des différences considérables entre les différents domaines de recherche et la manipulation des échantillons prélevés ainsi que leur transfert – effectif ou potentiel – à des parties tierces. Ces différences ouvrent une gamme de *probabilités* de transferts incontrôlés. En conséquence, le critère pour permettre – ou non – un simple accès ne devrait pas être basé sur le fait que l'utilisation des ressources génétiques pourrait déboucher sur un éventuel produit commercial, mais sur *le degré de probabilité* de déboucher sur une commercialisation. Un accès simple devrait être accordé dans les cas où la probabilité de commercialisation est faible.

Notre programme ABS et ses produits correspondent aux mesures proposées dans le brouillon du protocole ABS. L'Académie a estimé qu'il était utile de partager ses expériences et leçons apprises. Le rapport sur le programme ABS 2003–2010 offre une vue d'ensemble de nos activités, décrit les instruments et les produits créés et donne des informations sur nos enquêtes. Les principaux aperçus résultants sont présentés ci-dessous au travers de recommandations pour les négociations du protocole.

C'est donc avec grand plaisir que l'Académie suisse des sciences naturelles met ce rapport à disposition de la communauté intéressée par la problématique ABS. Notre voeu est de contribuer ainsi à des coopérations fructueuses entre les fournisseurs et les utilisateurs de ressources génétiques pour leur bien et celui de la diversité biologique.

Zusammenfassung

Die Schweizerische Akademie für Naturwissenschaften (SCNAT) ist überzeugt, dass die akademische Forschung wichtige Grundlagen für die Erhaltung der biologischen Vielfalt und die nachhaltige Nutzung ihrer Bestandteile schafft. Sie trägt so wesentliche Elemente zur Erreichung dieser beiden Ziele des Übereinkommens über die Biologische Vielfalt bei. Weitere Vorteile, insbesondere für die biodiversitätsreichen Geberländer, entstehen durch Zusammenarbeit mit Forschungsinstituten in den Partnerländern. Unterstützung von Forschung in den biodiversitätsreichen Ländern des Südens, Ausbildung und Förderung von jungen WissenschaftlerInnen und Technologietransfer gehören zur etablierten „good practice" akademischer Forschung. Die SCNAT setzt sich für solche Zusammenarbeit in einer Atmosphäre gegenseitiger Anerkennung und gegenseitigen Vertrauens ein und ermutigt die Forschenden, in Übereinstimmung mit internationalen ethischen Codes und Standards zu handeln.

Auf der Basis dieser Philosophie hat die SCNAT nach der Verabschiedung der Bonner Richtlinien im Jahre 2002 ein Programm in Angriff genommen, um unter den Forschenden das Bewusstsein für die ABS-Vorgaben zu stärken und sie darin zu unterstützen, korrekt vorzugehen. Das Programm wurde weitgehend durch das Bundesamt für Umwelt finanziert und in konstruktiver Partnerschaft von Akademie und Bundesamt entwickelt und durchgeführt.

Das Programm baute auf einer Erhebung der ABS-relevanten Forschung und des Informationsstandes der Schweizer Forschenden auf. Es wurde klar, dass wenig Wissen über das Übereinkommen über die Biologische Vielfalt und die ABS Verpflichtungen vorhanden war. Es wurde aber auch klar, dass komplizierte Zugangsverfahren vielen ForscherInnen Probleme bereiten.

Im Laufe des Programms wurden verschiedene Instrumente entwickelt: eine Informationsstrategie, um der akademischen Forschergemeinde das ABS-System näher zu bringen; eine Informationsbroschüre mit Hintergrundinformationen und Schritt-für-Schritt-Anweisungen, die speziell auf verschiedene akademische Forschungsinhalte ausgerichtet sind; ein Muster-ABS-Vertrag, dessen optionale Klauseln es erlauben, die jeweils besonderen Interessen von Gebern und von Forschern zu berücksichtigen.

Basis für die Entwicklung des Mustervertrags ist eine Untersuchung der speziellen Situation von Gebern und Nutzern genetischer Ressourcen. Sie ergab einerseits, dass die Forschenden besorgt sind, dass die ABS-Verfahren in den Geberländern den Zugang für akademische Forschung erschweren oder gar verhindern, und zwar auch für jene Forschung, die zum Ziel hat, Grundlagen für Erhaltung und nachhaltige Nutzung der biologischen Vielfalt zu erarbeiten. Andererseits befürchten die Geber, dass vereinfachte ABS-Verfahren für nicht-kommerzielle Forschung zu einem Trojanischen Pferd werden, das Forschungsvorhaben mit kommerziellen Zwecken zu einem einfachen Zugang und zur Umgehung des Benefit-Sharing verhilft.

Die anschliessende Untersuchung des Weges der genetischen Ressourcen durch die nicht-kommerzielle Forschung ging deshalb der Frage nach, wie und wo der Übergang von nicht-kommerzieller Forschung zu kommerziell orientierter Forschung und Entwicklung stattfindet. Die Untersuchung setzte ABS-relevante Forschungsschritte in Relation zu Typen akademischer Forschung. Die Befragungen und Analysen ergaben wesentliche Unterschiede zwischen den verschiedenen Forschungsfeldern, sowohl im Umgang mit den verwendeten Proben (zum Beispiel im Hinblick auf ihre Registrierung und Aufbewahrung), als auch in Bezug auf den – effektiven oder potenziellen – Transfer zu Dritten. In den Forschungsfeldern sind deshalb die Wahrscheinlichkeiten für einen unkontrollierten Übergang von Ressourcen unterschiedlich. Die Schlussfolgerung daraus ist, dass die Gewährung von einfachen Zugangsbedingungen nicht auf eine absolut sichere Nicht-Kommerzialisierung abstellen kann und sollte. Das Kriterium für die Gewährung eines einfachen Zugangs sollte vielmehr der Grad der Wahrscheinlichkeit sein, dass die Ressource in die kommerzielle Wertschöpfungskette übergeht. Einfacher Zugang könnte für Forschungsvorhaben mit einer geringen Wahrscheinlichkeit einer Kommerzialisierung gewährt werden.

Die Schweizerische Akademie der Naturwissenschaften (SCNAT) möchte die Erfahrungen teilen, die sie während der Durchführung des Programmes gesammelt hat. Der vorliegende Bericht gibt einen Überblick über unsere Tätigkeiten. Er beschreibt die entwickelten Instrumente und Produkte und präsentiert die Ergebnisse unserer Forschung. Die Essenz dieser Einsichten ist in den Empfehlungen für die Verhandlungen des ABS-Protokolls enthalten.

Die SCNAT freut sich, diese Informationen für die internationalen ABS- und Wissenschafts-Communities zugänglich zu machen. Unser Wunsch ist es, einen Beitrag zu leisten zu einer fruchtbaren Zusammenarbeit zwischen Gebern und Nutzern, zur Entstehung einer win-win Situation für alle Beteiligten – und zur Erhaltung der biologischen Vielfalt.

3 Introduction

3.1 Goal of the report

In compiling this report on Access and Benefit Sharing (ABS), the Swiss Academy of Sciences (SCNAT) draws on seven years of experience in raising awareness within academia about access to genetic resources and the fair and equitable sharing of benefits. Our goal is to share ideas and lessons learned from our experience and present the results of the program we have developed under the Convention on Biological Diversity (CBD).

Academic researchers are important players in the ABS system; a considerable part of access to genetic resources is carried out for non-commercial research for the public good. A case of biopiracy in 2000/2001 that involved a Swiss public research institution spurred the SCNAT to take action to address academic research using genetic resources, and the risks and problems it confronts.

We developed and implemented the program on ABS awareness raising and capacity building for academic researchers in partnership with the Federal Office for the Environment (FOEN),[1] after the adoption of the Bonn guidelines in 2002. Switzerland has always advocated voluntary implementation of the guidelines and has supported, both financially and in spirit, the ABS program.

This report gives an overview of the research carried out, the instruments elaborated, and critically assesses the outcomes. It describes the state of awareness within the academic community at the outset of the project, insights into the background of the situation and the measures taken. We describe a matrix of research activities according to the most critical ABS issues such as use, transfer to third parties, and storage. We also present the first ABS agreement of its kind for non-commercial public good research, which includes optional sample clauses.[2]

In working with the scientific community on concrete cases, SCNAT recognized the complexities that the implementation of the system can create for non-commercial academic researchers. They are often confronted with the same procedures as those intended for commercial users. Additionally, The unfamiliarity of researchers with administrative processes and contract negotiations led to difficulties in access. On the basis of these experiences, the Academy's ABS team worked on the policy level and began to build an international network of scientists to develop instruments to facilitate non-commercial research.

3.2 The context

The primary purpose of the SCNAT program has been to promote compliance with the ABS principles by the research community. Awareness-raising and capacity building are essential to this end.

The ABS team developed a code of conduct[3] and elaborated a strategy for awareness raising. To ease the negotiations of contracts on Mutually Agreed Terms, it developed model contract clauses tailored to the needs of both providers of genetic resources and non-commercial users seeking access. Such instruments are deemed important for ABS implementation and compliance and are mentioned in the Draft Protocol.[4]

3.3 Structure and organization of the program

3.3.1 The Swiss Academy of Sciences

The Swiss Academy of Sciences[5] is an extensive network of more than 35,000 scientists from all natural science disciplines. It makes use of expert knowledge and promotes the dialogue between science and society. It has been committed to the development of sciences in Switzerland for nearly 200 years.

The Academy focuses on the core tasks of horizon scanning, ethical aspects of sciences, the extensive dialogue with society and policy makers, and the central task of promoting sciences as a cultural asset. Three cross-cutting interdisciplinary fora within the platform Science and Policy – the Swiss Biodiversity Forum, the Swiss Forum for Genetic Research and the Swiss Commission for Research Partnership with Developing Countries – allow for a differentiated and well-funded debate in matters concerning science, society and policy.

3.3.2 The national network

The ABS project has been conducted by a team associated with the Swiss Biodiversity Forum of the Swiss Academy of Sciences. The current team consists of two biologists and a lawyer.

Its *Steering Group* closely monitors the ABS team's activities and gives feedback regarding strategic

1 We thank the Federal Office for the Environment for its financial support and the responsible officers for the good cooperation.

2 See Annex 2 and http://abs.scnat.ch.

3 http://abs.scnat.ch/downloads/documents/ABS_GoodPractice_2009.pdf.

4 See: Report of the Second Part of the Ninth Meeting of the Ad Hoc Open-ended Working Group on Access and Benefit Sharing, UNEP/CBD/COP/10/5/Add.4, Annex, Articles 15, 16 and 17.

5 www.scnat.ch.

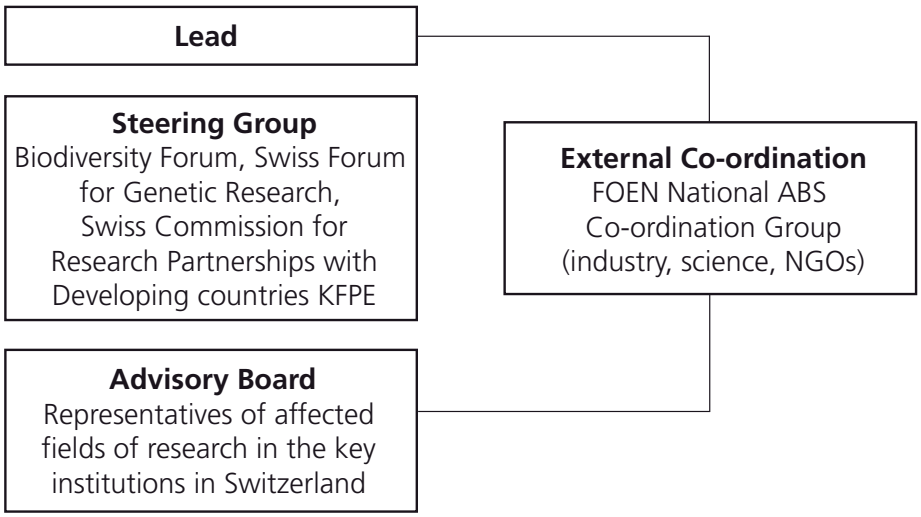


Figure 1: Organisational structure of the ABS project.

questions. It comprises representatives of the Swiss Biodiversity Forum, the Swiss Forum for Genetic Research and the Swiss Commission for Research Partnerships with Developing Countries.

The *Advisory Board* is composed of 22 members representing the fields of research that are affected by the ABS system,[6] and the key research institutions in Switzerland. This includes experts from botanical gardens, zoos, and coordinators of North-South research. Additional stakeholders such as university technology transfer departments, NGO representatives and representatives from industry and from the federal administration complete the group.

The role of the advisory board is to act as the sounding-board for the program. Its members are well embedded in the Swiss research community and can act as multipliers of the ABS message.

The ABS team also participates in the *National ABS Coordination Group*, led by the Federal Office for the Environment that discusses and prepares the official Swiss position. The group includes all affected stakeholders (administration, industry, research, NGOs). The close collaboration and exchange of ideas and information with the FOEN is beneficial for both sides. It allows the ABS team to closely link its activities to the current status of the international ABS negotiations, and to provide input into them.

3.3.3 The international network

The ABS team sought the cooperation of international partners at an early stage in order to build European and global networks. The network consists of partners from countries providing and using genetic resources and includes university scientists and representatives of funding organizations as well as members of governmental agencies and NGOs.

The Academy provided an ideal environment for the ABS work. It allowed for an interdisciplinary approach and facilitated direct contact and cooperation with stakeholders of the Swiss research community.

The interdisciplinary composition of the ABS team, the established national and international networks and the structure and functioning of the Academy were essential for the evolution of the project and the development of its products.

The integration of different research communities allowed learning about the specific ABS aspects on all levels of biodiversity (ecosystems, species, genes) and in different fields of research. The cooperation with colleagues from providing countries provided insights into the dialectics of the ABS system.

6 Systematic botany, phytopharmacology, zoology, tropical medicine, biotechnology, food sciences, experimental biology, ethnopharmacology and agriculture.

4 Awareness raising and capacity building in academia

4.1 State of knowledge and experiences with ABS

In order to assess how much biodiversity research with genetic resources from other countries is conducted at Swiss universities, the authors undertook a national survey in September 2003. Main goals of the study were the identification of the fields of research at university level, and the assessment of the level of awareness and ABS experiences of scientists. For the survey, 175 research institutes in social, natural and technical sciences were identified as potential users of genetic resources and were contacted. Fifty-four institutes reported information on 87 research projects with genetic resources from abroad.

The majority of projects (79%) focused on the genetic resource itself, 17% dealt with the genetic resource in combination with associated traditional knowledge, 3% of the projects studied exclusively traditional knowledge. About a third of all projects (29%) were purely taxonomic studies.

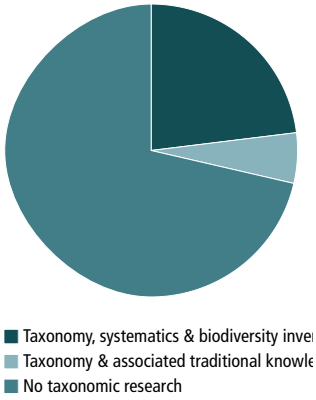


Figure 2: About one third of the reported non-commercial research generated taxonomic knowledge and biodiversity inventories.

In 44% of the cases, researchers experienced access problems. They reported that in many provider countries, access is hampered by defensive regulations, lack of regulations and complicated administrative procedures. Yet, in the view of the project leaders, most of the research provided results of interest for the provider countries themselves.

The assessment revealed low or insufficient knowledge among researchers about the Convention on Biological Diversity and the obligations resulting from the ABS regime.

4.2 Interviews with affected researchers

In order to learn more about the concrete situations in the field, we led semi-structured interviews on ABS procedures and non-commercial research with scientists who have worked in different countries.

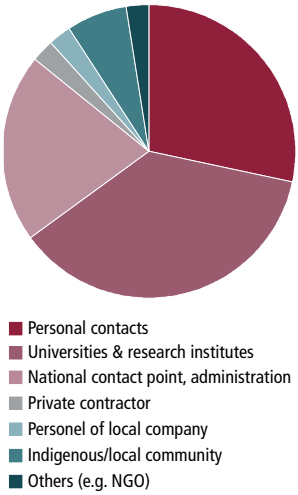


Figure 3: Genetic resources were predominantly accessed through personal contacts and partner institutes in providing countries.

We covered 10 research projects in the following areas: systematics and taxonomy, ethnobotany, botanical and zoological inventories, applied biology, plant pathology, social geography, and agrosciences. The projects had been carried out in Africa (Zambia, Burkina Faso, Tanzania, Ghana, and South Africa); South America (Mexico, Paraguay and Peru); Asia (China) and Europe (Romania/Russia). The sampled material consisted of wild or cultivated plants, seeds, dead or living animals, DNA of fungi, galls, and smoke samples not containing genetic resources.

The main conclusions were the following:

- The negotiation partners were mostly the researchers themselves, often working with a scientist in a local research institution who procured certain permits. Only two projects contacted the official ABS authorities. One project was aborted because of the inability of finding an ABS Focal Point.
- Sixty-six percent of the projects had no official ABS contract. Most of the ABS agreements were concluded informally between the researchers in Switzerland and institutions in the host countries. However, the scientists obtained the usual research or collection permits.
- In each country, the researchers were able to obtain export permits when necessary. In some cases, the process took up to a year. In half of the surveyed countries, permits for access, collection and export were very expensive; in one

case this was a reason to cancel field research. In other cases, permits were free.

- The benefits shared were mostly non-monetary: training of graduate students, education, co-publications, collaborations, species identification, distribution maps, deposited samples in herbaria or museums. Monetary benefits consisted of hiring local field assistants or students.

4.3 Information strategy

The results of the survey and the interviews revealed a clear need to improve the level of information among scientists (awareness raising) and the need for negotiation support (capacity building). An information strategy was developed in cooperation with a communication specialist. This is an important instrument for coordinated implementation of the project on awareness raising.

Strategy elements include: (1) the definition of goals and priorities; (2) the identification of direct target groups (the researchers of the various research fields) as well as indirect target groups (authorities, funding agencies, media); (3) possible measures and tools (the creation of a website, workshops, participation in conferences, awards, etc.). The strategy determines the ideal mix of the measures to take and ways to communicate (conferences and seminars, publications, newsletters, media and personal contacts).

4.4 Awareness-raising tools

A range of tools, specifically tailored for non-commercial research, was created: a good practice manual, a website, conference posters, flyers and a coaching service. The most recent product is the sample agreement on ABS with model clauses for non-commercial research, which we include in this report.[7]

Access and Benefit Sharing – Good practice for academic research on genetic resources[8] was published in 2006 for scientists in Switzerland. It has become a valuable tool for researchers around the globe and is now in its second edition in English, French and Spanish.[9] It contains a brief introduction to the ABS system, analyses of case studies, a step-by-step overview of the requested procedures and checklists for elements of Prior Informed Consent (PIC) and Mutually Agreed Terms.

The *website* (http://abs.scnat.ch) provides information on ABS and academic research and keeps scientists up-to-date on the international ABS negotiations and publications that focus on non-commercial research.

The *ABS awareness-raising campaign* has included lectures and seminars integrated into university courses and poster presentations at scientific conferences. The ABS team reached out to both junior and senior scientists, stimulating discussions that were lively and provided valuable feedback and

7 Annex 2.
8 Available at http://abs.scnat.ch/downloads/documents/ABS_GoodPractice_2009.pdf
9 The translation was possible thanks to the financial support of the Swiss Agency for Development and Cooperation.

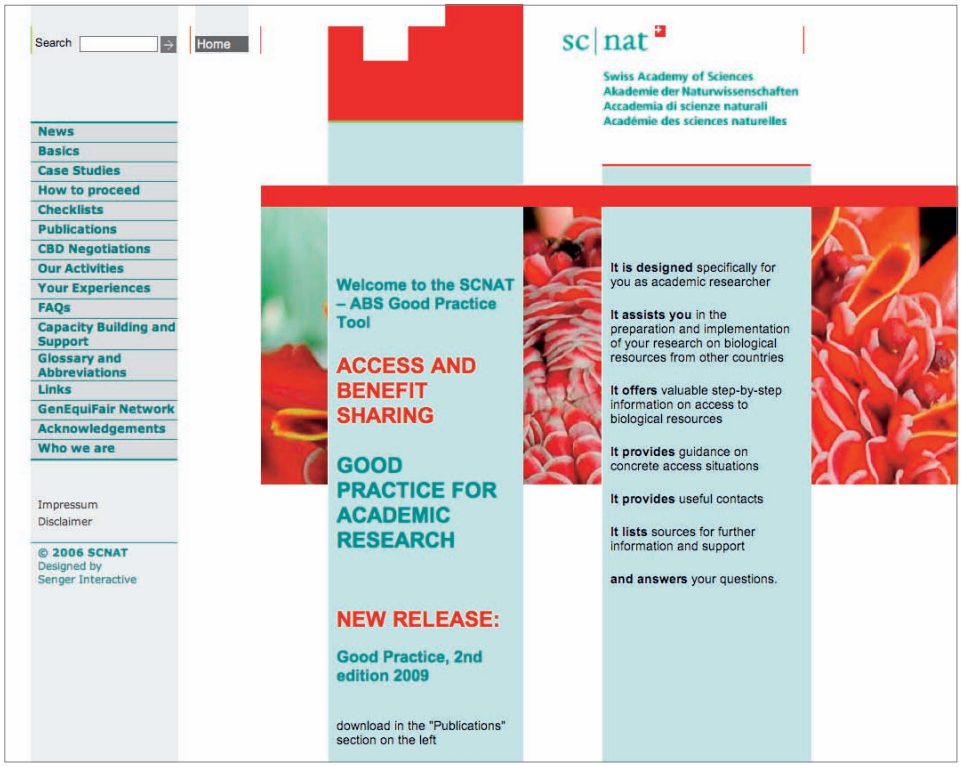
information. Special concerns of the program have been to address the issue of responsibility among scientists, and to emphasize that researchers can actively contribute to bridging the North-South divide through cooperative research, training, and the transfer of knowledge and technology.

4.5 Lessons learned

The survey at the outset revealed that ABS procedures were often perceived as pointless, burdensome, and requiring time-consuming paper work with authorities difficult to locate. A fundamental problem at the beginning of the information campaign was therefore how to deliver a message nobody was eager to hear. Since then, the situation has slightly changed: students are interested; project leaders are informed and want to comply. However, researchers still have difficulty finding the responsible agency in the countries providing genetic resources.

The ABS team continues to focus on a general strategy of awareness raising and on capacity-building for those most affected, i.e. researchers; project leaders and heads of institutes. Experience shows that besides this bottom-up approach, a top-down strategy is necessary to ensure compliance with the ABS system.

The take-away leaflet goes with the poster. It contains the basic information on services provided and contacts.



The website http://abs.scnat.ch provides information on Access and Benefit Sharing for academia.

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Genetic Resources Belong to the State on Whose Territory They Are Located

The Convention on Biological Diversity (CBD, 1993) confirmed the sovereign rights of states over their biological resources on their territory. It was decided that access to biological resources containing functional units of heredity is based on Prior Informed Consent, Mutually Agreed Terms and the Fair and Equitable Sharing of Benefits.

The ABS rules also apply to academic research, including research that has no commercial purpose.

These rules are known as the ABS-system ("Access to Genetic Resources and Benefit Sharing").

How to Proceed

1. Get Prior Informed Consent – Stakeholders need to know about your intended research
A person or institution seeking access to genetic resources for research purposes in a foreign country needs to make a request for Prior Informed Consent (± a research permit). It is issued by the country providing the biological material.

To this end, the scientist has to inform the competent national ABS authority of the planned research. Depending on national legislation, this may include informing other involved stakeholders such as local communities.

2. Mutually Agreed Terms – Research is possible if stakeholders agree
After access was granted (Prior Informed Consent), Mutually Agreed Terms (MAT) have to be negotiated. This is a contract between the competent authority of the providing country and the project leader. This contract defines the conditions of access to and the use of the genetic resources. In addition, the MAT incorporate an understanding of the benefits that arise from the utilization of the genetic resources and how to share them.

3. Benefit Sharing – It's a give-and-take
The benefits resulting from research must be shared in a fair and equitable way with the providing country. This also applies to academic research, since this type of research generates specific benefits which – although non-monetary as a rule – can nevertheless be of value to the providing country.

Such benefits are - inter alia – access to research results, capacity building (training of Master students, PhD students and staff members), technology transfer (lab methods) and the establishment of academic networks and research cooperation.

A Tool for Researchers

„Access and Benefit Sharing – Good Practice for Academic Research". This **publication** and **website** was prepared by the Swiss Academy of Sciences and contains practical information for academic research with non-commercial intent on the ABS system.

Visit and download the publication: http://abs.scnat.ch

Information and coaching

The Academy's ABS team offers (free of charge):
- Lectures at your institution
- Information and counseling on ABS specific matters
- Support in establishing contact with the authorities in providing countries;
- Support in contract drafting, negotiation and in conflict situations;
- Contacts to ABS-experienced researchers

Science's Responsibility

Researchers can actively contribute to overcoming the North-South divide through cooperative research, training, and the transfer of knowledge & technology to developing countries.

The Swiss Academy of Sciences advocates research in a mutually trustful atmosphere and encourages scientists to conduct their research in accordance with existing international codes and standards.

sc | nat

Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles

Conference poster.

5 Non-commercial academic research and the international ABS negotiations: The SCNAT contributions

5.1 Introduction

Interviews with researchers revealed the need to propose specific, simple access procedures for non-commercial research in the international ABS negotiations. Yet, the implementation of the ABS system for non-commercial academic research implies specific difficulties and concerns for *both users and providers*. In order to lead this debate in a constructive way, it is essential to better understand the underlying problems and proposed solutions. Cooperation with international partners is therefore fundamental and of great value in order to find solutions for implementing an ABS system that incorporates the needs of both providers and users of genetic resources. It is essential to exchange viewpoints and experiences, and to evaluate proposed tools.

Hence we established an international network representing providers and users alongside our project activities.[10] The network encompasses stakeholders from academia, governmental agencies and NGOs from throughout Europe and abroad.

A multi-stakeholder process and an approach integrating providers and users of the resources is essential for initiatives aimed at creating instruments to implement the ABS system and to ease its procedures.

5.2 Analysis of problems when implementing the ABS system

5.2.1 The situation of non-commercial academic research[11]

Users encounter specific difficulties in accessing genetic resources. Besides the lack of operational ABS systems in many countries, access procedures are geared primarily toward industrial product development. In industrial research and development (R&D) processes, benefits are usually realised only after a considerable time span. Therefore detailed contractual agreements and possibly upfront payments are the rule. These are conditions that academic research cannot afford. In contrast to industrial research, academic research takes place under different conditions, and with different goals. Much of academic research generates information important for the conservation and sustainable use of biodiversity, and/or is designed to serve the interests of the providers. Other benefits for providers, such as scientific cooperation, education and training of students, and technology transfer, occur in parallel to the research so, in comparison to commercial R&D, there is little time-lag between access and the generation of potential benefits. Controlling the sharing of benefits that result from non-commercial public funded research is therefore easier.

Academic research has neither the financial nor the organizational flexibility for lengthy negotiations; resources are relatively scarce, acquisition is highly competitive and based on publishing success. Scientists need easy access to the resources, legal security through an efficient access administration, transparency and predictability of procedures.

It is our conviction that non-commercial public good research is essential to achieve the conservation and sustainable use of biological diversity, the first two goals of the CBD. Moreover it generates non-monetary benefits and contributes to education, advancement of science and technology transfer.

If access to genetic resources is excessively burdened by complex ABS procedures, this type of research is at risk.

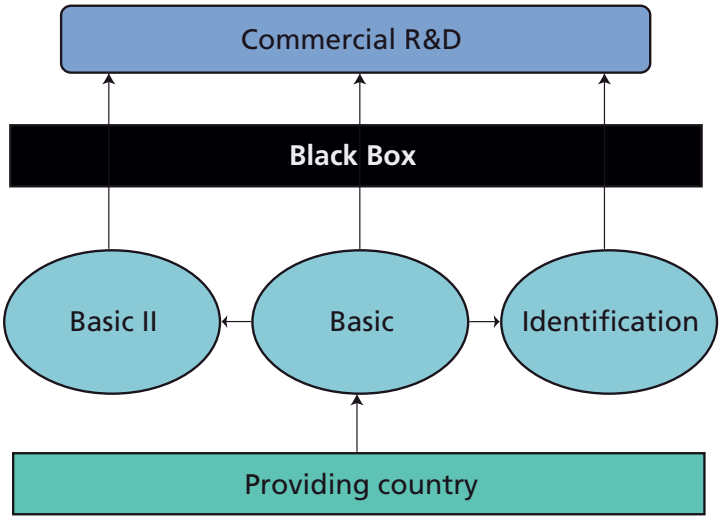
5.2.2 The situation of countries providing genetic resources

In the negotiations on the ABS Protocol, delegations of countries providing genetic resources made it clear that facilitated access systems for research would be acceptable only if measures are in place to ensure that these resources are not transferred to commercial use without consent of the providers. This concern is due to the difficulty of controlling resources once they have left the country. Whether the resources will be used in a non-commercial or commercial context depends on the intention of the researcher. Provider countries fear that resources accessed under a non-commercial label may flow into the commercial value chain and that they would lose the economic benefits of their resources. Administrative authorities, recognizing this possibility, and lacking knowledge on scientific methods and goals, may

10 For details see Annex I: Project activities.

11 Martinez S I, Biber-Klemm S (2010) Scientists – take action for access to biodiversity. Current Opinion in Environmental Sustainability, 2:27–33.

Figure 4: The points of transfer of genetic resources from non-commercial research to commercial R&D.



evaluate scientific research proposals submitted for ABS access requirements more rigorously than others. They fear that if their access permits are too simplified or lax, they could be charged with allowing biopiracy.[12] This mistrust and fear of abuse fosters the trend toward tight contract conditions and increased control of resources.

Providers are concerned that simple procedures are a Trojan horse introducing easy access for commercial research.
Respect, transparency, cooperation, and establishment of mutual trust are essential elements in ABS relations.

5.2.3 Movements of genetic resources through the research and value chain

We investigated pathways of resource transfer from non-commercial research institutions to commercial R&D entities in order to define the risks and possible points of control. These pivotal points had only been clarified in a very rudimentary way. The points of transfer from non-commercial to commercial R&D appeared as a black box (Fig. 4).
We asked: Where and how does the transfer of genetic resources from non-commercial research to R&D for commercial development take place? Where are the transfer points between non-commercial and commercial utilization of the resources and what are their characteristics? What control points could be set up?

5.2.4 Theoretical Background: The value and innovation chain of genetic resources

In bioprospecting, the genetic resources and information generated by them move through a value chain.
Figure 5 (p. 17) illustrates the flow of information and uses of genetic resources along the value and innovation chains. On the bottom line of the figure are indigenous local communities with their traditional knowledge of medicinal uses and cultivation methods, and sovereign states with genetic resources that are collected by researchers (Knowledge Production Site 1). The knowledge and information collected is transformed by researchers ('Intermediaries') in the next higher level, for example through scientific analysis and publication (Knowledge Production Site 2). Value is added to the resource as this information becomes available to other stakeholders (e.g. research and development, commercial users) in an expanded geographic area (from local to global, from a grassroots approach to a highly technological approach). If the process of adding knowledge continues, for instance by using chemical analyses, the information increases. This can lead to the production of commercial products (Knowledge Production Site 3).[13]
Accordingly, academic non-commercial research is an important stakeholder with a dual role in the access to genetic resources: First, it acts as an access point to genetic resources (biological material) and related traditional knowledge. Second, scientists play a pivotal role as intermediaries between the various stakeholders involved in the

12 Chapter 5.3.1. on ABS-relevant steps of research provides background information that helps to overcome this problem.
13 Based on: Brahy N, Louafi S (2007) The role of the research sector in ABS governance. IDDRI Idées pour le débat 9:1–19.

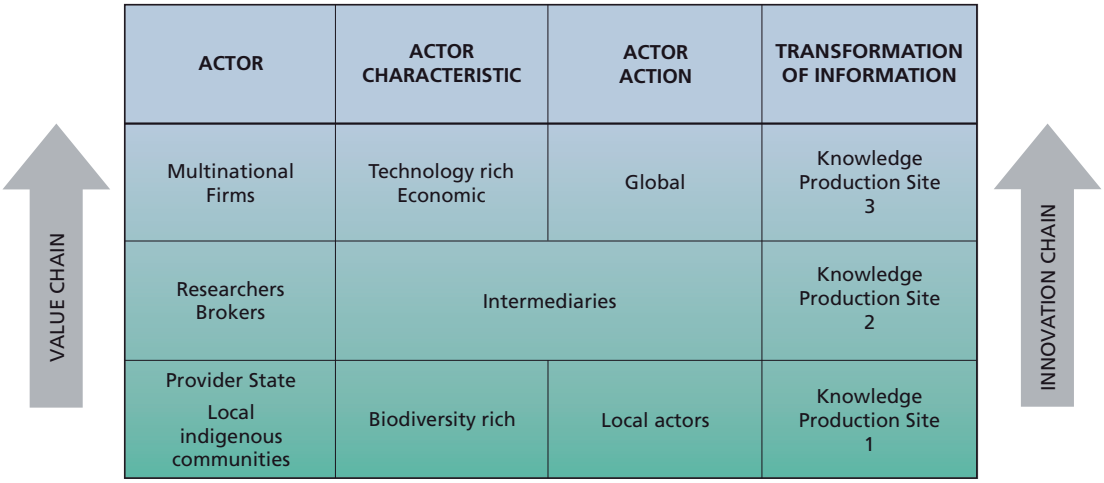


Figure 5: The innovation and value chain.

process. By doing research — from data collection through data analysis and publication of the results — they generate and transform information, transmit it along the value chain and make it available to other scientists and interested stakeholders.

This connection between the generation of knowledge and its subsequent use might be difficult to detect because there may be a substantial time-lag between the publication of results of research and its commercial utilization. As a rule, there is a geographical disconnect between the place of collection and the place of processing; there is also a legal disconnect between the place where the resource originates and the place where further studies are carried out.

5.2.5 Pathways: how genetic resources move from non-commercial to commercial use

In order to assess how resources and research results might be transferred from non-commercial research to commercial R&D, it is necessary to gather information on the stage of research where changes of intent and uses may occur.

In two workshops with relevant stakeholder groups we identified possible gateways between non-commercial and commercial utilization of genetic resources, possible control scenarios, and elements facilitating control in a bilateral context. Interviews with researchers from different fields and institutions further clarified the potential transfer points.

There are considerable differences between fields of research in the handling of the accessed samples and in their – effective or potential – transfer to third parties. Movement of ex-situ collections of dead and of living material (herbaria, botanical collections) are tightly controlled; scientific custom and practice and formal material transfer agreements define the permitted utilization of samples by third persons. However, the fate of samples that are not stored in a collection after use is less clear. There seem to be no general rules for what happens to a sample after use, how it is to be stored and how potential conditions on its use can be communicated to subsequent users.

There are also differences due to the type of resources (living or dead resources) and to the type of research activity.

These differences between the fields of research in the handling of genetic resources open a range of probabilities of uncontrolled transfer of resources to third parties. Simple access procedures could be made available for cases with a low probability of uncontrolled transfer to commercial R&D. Control measures could be tailored according to the given scenarios.

Avoiding excessive transaction costs is in all cases essential.

5.3 Results

5.3.1 The Matrix on research steps in the ABS context

The analysis of sensitive ABS issues led to the distinction between different types of research (see table pp. 18/19), for example, inventories (with characterization and evaluation) and work on functionality of the resources (or their propagation or modification). We also distinguished between research carried out on different types of resources (dead or

Analysis of research steps concerning genetic resources in the ABS context

Types of research with genetic resources / ABS relevant research steps	A	B
	Inventories (characterization & evaluation)	
Type of accessed resources	**Preserved genetic resources (dead material)**	**Living genetic resources**
Overall goal of research activity	Inventories of biodiversity; knowledge increase in systematics, ecology and evolution	
Use made of resources	Collection, identification, classification; phenotype and functional characterization; measuring; basic molecular analyses (e.g. DNA sequencing, microsatellites)[16]	
Storage of samples	Researchers store samples in own lab Storage for scientific and/or educational use in public collections (museums, herbaria)	Researchers store samples in own lab Storage for scientific and/or educational use in public collections (zoos, botanic gardens, seed banks, culture collections)
Transfer of genetic resources to third parties (including exchange with peers)	Scientific cooperation with peers For identification purposes; loans for scientific work Sharing of duplicate specimens with other collections	
Products of research[18]	Publications, determination keys, presentations and reports Distribution maps Collections for scientific or educational purposes (museums, herbaria) Organismic and molecular data in private or public data bases	Publications, determination keys, presentations and reports Distribution maps Collections for scientific or educational purposes (e.g. botanical, zoological garden, culture collections) Organismic and molecular data in private or public data bases
Potential for further use of research results towards commercial product development[19]	Published results can be further developed into commercial products	
Benefits of research (P = for providing country; S = for scientists)	Basic knowledge of the living world (P&S) Biodiversity assessment, monitoring; information for biodiversity conservation & management (P&S) Scientific cooperation with peers (S) Education and outreach material (P&S) Capacity building (P) University rankings (S) Academic career benefits (S)	Basic knowledge of the living world (P&S) Biodiversity assessment, monitoring; information for biodiversity conservation & management (P&S) In-situ and ex-situ biodiversity conservation (P) Scientific cooperation with peers (S) Education and outreach material (P&S) Capacity building (P) University rankings (S) Academic career benefits (S)

Important note: The table focuses on research activities carried out in academic institutions and does not address further research steps needed to develop commercial products.

14 The manipulation and propagation of organisms or parts thereof require more stringent MTA clauses for controlling and is thus considered a distinct classification in this matrix.

15 Animal breeding is, at present, less relevant in the ABS context; targeted transfer of genes is not yet widely applicable in animal breeding. In conventional breeding, the rights to the genetic information of the progeny are generally included in the transfer of the property.

16 Basic molecular analyses are considered common methods in systematics and studies in ecology and evolution.

17 The ex-situ preservation of microbial strains and fungi requires intermittent isolation, purification and propagation.

18 Products of research with non-commercial intent are usually in the public domain and thus accessible to the general public.

19 Assuming that the research is carried out according to ABS regulations (this includes PIC, MAT and the use of MTAs).

C	D	
Functionality, Propagation[14] & Modification		**[Research & Development; Commercialization]**
Preserved or living genetic resources	**Preserved or living genetic resources**	
Identification, isolation, and characterization of active compounds Genomics and proteomics	Improvement of products in agriculture, forestry, horticulture and aquaculture;[15] development of pharmaceuticals Biological engineering	
Isolation of active compounds; characterization, purification; synthesis; multiplication of organisms or parts thereof (unaltered); traditional biotechnological processes Based on collection, identification; classification; basic molecular analysis	Isolation and insertion of target genes; molecular cloning and transformation of genes, (structures and characteristics); multiplication of cells and/or organisms Based on collection, identification; classification; basic molecular analysis	
Researchers store samples in own lab or in stock centre Culture collections[17]		
Scientific cooperation with peers Stock centers, culture collections		
Publications, presentations and reports Purified samples; chemical formulas, isolated and identified genes Elaboration of new methods and technologies Organismic and molecular data in private or public data bases	Publications, presentations and reports Isolated and identified genes, genetically modified cells or organisms Elaboration of new methods and technologies Organismic and molecular data in private or public data bases	
Published results (e.g. chemical formulae) can be further developed into commercial products Unauthorized use after access to stock centre or stored samples		
Basic knowledge of the living world (P&S) Scientific and technological advancements (P&S) Patents (P and/or S) Scientific cooperation with peers (S) Capacity building (P) University rankings (S) Academic career benefits (S)		

living material). The analysis is based on the definition of ABS-relevant research steps, including the use made of the resources, their storage, and their transfer to third parties, as well as the products of research. These categories served as building blocks (rows and columns) for a matrix that was subsequently completed layer by layer.
An international network of peers evaluated the matrix.
This meticulous analysis is helpful for the negotiation of ABS contracts because it indicates the potential of research to generate commercial profit. Hence it facilitates the adaptation of contracts to the type of research, enabling trust-building measures such as contact points or obligatory reporting. This allows the provider to follow the course of the research.

5.3.2 The ABS-relevant elements of research

Type of resource accessed
Use of the material may depend upon whether the resource is living or dead. Living resources, or resources that can propagate, offer more utilization possibilities than dead material.

Overall goal of research activity
The main differentiation was between inventories[20] and the study of functionality, propagation and modification of genetic resources.

Use made of resources
According to the research envisaged, genetic resources are used in different ways. Collecting material often marks the beginning of the scientific activity. Standard techniques used for the identification and classification of taxa are morphological and basic molecular analyses. Column C reflects more complex analyses, i.e. isolation of active compounds, their characterization, purification and synthesis. This column may also include the propagation of organisms and multiplication of their parts, as well as traditional biotechnological processes.
In column D, the uses become even more complex and the need of providing countries for control increases correspondingly. In this section, research activities include isolating and inserting target genes, molecular cloning and the transformation of genes, as well as the multiplication of cells and/or whole organisms.

Storage of samples
In academia, storage of samples is important. Preserved samples guarantee the credibility of published research results. They enable peer scientists to reproduce and validate the obtained results. In most cases, storage is geared towards scientific and/or educational uses. Some samples may be deposited in museums, botanical gardens, zoos or herbaria; others may be stored in stock centers or culture collections. The ex-situ preservation (Column C) of microbial strains and fungi requires constant isolation, purification and propagation. If the material is not properly stored and managed, it could lead to uncontrolled use by unauthorized third parties. Molecular information about genetic resources is deposited in specialized databases.[21] Several specialized stock centers and culture collections host a variety of resources, including algae, microorganisms, fungi, *Bacillus, E. Coli, Arabidopsis, Drosophila,* etc.

Transfer of genetic resources to third parties (including peers)
A key issue is the control of the transfer of genetic resources to third parties, especially where there may be flow of material from non-commercial into commercial use. For non-commercial academic research, however, the exchange of material has a long tradition, particularly if the work is carried out within a scientific collaboration. In fact, taxonomy is a transboundary discipline by nature; no country hosts a full set of experts able to identify all groups of organisms found on its own national territory.

Products of research
Non-commercial research is dedicated to the increase of knowledge; its main products are publications in journals and books. It is important to note that all products of non-commercial research are placed in the public domain and are thus accessible to the general public. All research sectors produce organismic and molecular data.
Research inventories produce species determination keys, distribution maps and collections for scientific and educational purposes.
The products of research on functionality, multiplication and modification of genetic resources include purified samples, chemical formulas, isolated and identified genes. Genetically modified

20 Biodiversity inventories generate basic biological knowledge essential for research. This includes the identifying and naming of species, understanding the relationships among living things, as well as their ecology and evolution.
21 Such as the European Nucleotide Archive, World Wide Protein Data Bank, SwissProt, BarCode of Life Data Systems.

cells or organisms also are produced, generating new methods and technologies.

Potential for use of research results for commercial product development

Many research results have potential to be used for the development of commercial products. From our analysis, the probability of information and genetic resources being misappropriated without honoring ABS agreements is much smaller in the case of research for inventories (Columns A and B) than in research on functionality (Columns C and D). Yet researchers, repositories and stock centers have a special role of responsibility in safeguarding and lawfully passing on material to third parties.

Benefits of research

The analysis of the benefits of research show that both researchers and providers can gain from research. If appropriately communicated, research promotes the increase of knowledge; publications of results act as catalysts and promote academic careers and education.

Conclusion

The distinction between non-commercial and commercial research is a graduated one. It increases from column A to D, as the need by provider countries to control the use of genetic resources in research increases (from characterization and evaluation of biodiversity to research on the functionality, propagation and modification of genetic resources).

The criterion for granting simple access should not be whether the utilization of genetic resources may ever lead to a commercial product, but the *probability* of this happening. Simple access should be granted in cases with a small probability of commercialization.

5.3.3 The Sample Agreement on Access and Benefit Sharing

Since the publication of "Access and Benefit Sharing – Good practice for academic research on genetic resources",[22] the ABS team has frequently been asked by researchers to develop standardized agreements that could be used to provide legal security.

Based on our conclusions that simple access procedures for non-commercial research are possible, we therefore developed a sample ABS agreement that contains model clauses. It aims to fill the gap where no national tools are available or in cases where agreements focus on commercial activities and are not applicable to non-commercial research.

The ABS Agreement for non-commercial research is based on the premise that the Mutually Agreed Terms (MAT), as stipulated in Art 15. CBD, are a bilateral contract concluded between providers and users. The ensuing agreement is the result of their *negotiations* on the terms of access and benefit sharing. Therefore, we considered it of primary importance to acknowledge the needs of both providers and users of the resources.

In drafting the sample agreement, we analysed different types of research, resources and providers. The conclusions can be summarized as follows:[23]

- One of the challenges for the providers consists in controlling the flow of the resources throughout the value chain, especially in the user country. Of greatest concern is the risk that the resources and related information accessed under the conditions for non-commercial research could enter the R&D sector without MATs for potential commercial developments.
- *Fields of research* that use genetic resources have various *degrees of probability* that the research results may flow, intentionally or unintentionally, into the commercial value chain. Some fields of research show a very low probability, e.g. biodiversity inventories or ecological studies. In such cases, the provider could require less control over the uses.
- Legal and regulatory situations in provider countries may differ, from a complete lack of regulations on ABS to elaborate agreements.

If the relationship and cooperation between providers and users is to be successful, the parties need to take account of the following: specifics of the type of research planned (e.g. taxonomy vs. phytopharmacological research); the physical requirements of the research (e.g. impossibility of on-the-spot identification of taxa to be accessed in the case of inventorisation); and provider-specific needs (factual and/or political).

22 Biber-Klemm S, Martinez S I, Swiss Academy of Sciences (ed.) (2009) Access and Benefit Sharing – Good practice for academic research on genetic resources. Bern, Switzerland. http://abs.scnat.ch

23 For more details see the introduction to the ABS Agreement in Annex 2.

Method

These insights determined our working method. We set up an international partner network, consisting of researchers, research institutions, ex-situ collections, governmental agencies and NGOs of both provider and user countries. We collected samples of Material Transfer Agreements and ABS contracts and analysed their contents, the solutions they offer to problems we had identified, and language.

We repeatedly sent drafts of the Agreement to the partner network to be critically assessed,[24] and finally arrived at the present version.

The Agreement is made available (at http://abs.scnat.ch) as a Word Document under a Creative Commons License that allows for changes in the document.

Result

The aim of the Agreement for non-commercial research is to ease negotiations, support transparency, enhance mutual trust, and prevent unnecessary transaction costs in negotiations and the implementation of the MAT. To this end, it provides a toolbox for composing a contract on mutually agreed terms tailored to accommodate the various needs of the stakeholders.[25]

The Agreement is meant to cover the most relevant issues that arise in the relationship between providers and non-commercial researchers. We recommend that both parties possess the *full text* of the Agreement in order to foster discussions on options and provide solutions to disagreements that might arise.

The idea is that the parties to the agreement choose the clauses most appropriate to their situation and to their needs and intentions, and so create their tailor-made MAT.

The Agreement is considered a work in progress. We hope it will be used widely and welcome information and feedback.

24 We thank all our network partners for their contributions.
25 See the ABS Agreement in Annex 2.

6 Recommendations for the negotiations of the ABS protocol

Based on findings of the ABS program, the Swiss Academy of Sciences strongly recommends the insertion of a clause into the International ABS Protocol of the Convention for Biological Diversity to:

Encourage Contracting Parties to create conditions to facilitate and promote public, non-commercial research on biological diversity through

1) Obliging the Contracting Parties to provide for easy access with simple procedures to genetic resources for public non-commercial research on biological diversity;
2) Stimulating initiatives by the Contracting Parties to create supportive instruments such as framework contracts and certification schemes;
3) Implementing adequate and practical measures by the Contracting Parties to control the sharing of benefits resulting from non-commercial public research.

The arguments backing these recommendations can be summarized as follows:

- Research provides the basic knowledge for conservation and sustainable use of biological diversity and innovation based on genetic resources. Without research, there will be neither monetary nor non-monetary benefits.
- Public non-commercial research typically aims at providing *public goods;* it supplies knowledge and information that is necessary for the conservation and sustainable use of biodiversity. It is indispensable to the CBD's goal to conserve biological diversity.
- Research by public institutes should not be hampered by complicated access procedures or those that are not adapted to their specific needs.
- *Fundamental and ABS-relevant differences* exist between research performed by public and private institutions:
  Academic researchers generally work in a highly competitive environment, on a tight schedule and with restricted economic resources. They need to produce results within a given time frame and with the means allocated or the success of the research project may be compromised.
  Patterns and cultures of public and private research differ. Public research is transparent by its nature, creating benefits that are predictable and directly linked to on-going research. Non-commercial public research as a rule leads to *non-monetary benefits*. These benefits accrue *during* the execution of the research. Accordingly, they are shared in parallel to – or integrated into – the research. This means that the time gap between research and the possible generation of benefits that is typical for commercial research does not exist. Consequently, the sharing of benefits can more easily be controlled by providers.
- It is important to recognize the provider-specific concerns regarding the control of the use of the genetic resources especially once they have left the country, and the difficulties in monitoring the benefits resulting from research. Stricter access procedures for non-commercial academic research, however, will not solve these problems.
- It is a major concern of academia that an overly restrictive ABS system for non-commercial public research will be counter-productive. We believe that such a system based on fear of abuse and mistrust will lead to the abandonment of non-commercial public good research in many providing countries. This would negatively affect the generation of urgently needed knowledge for the conservation and sustainable use of biological diversity. It would also diminish the opportunities to share benefits in the fields of education and technology transfer.

We suggest the following measures to address *concerns of provider countries:*

- Voluntary schemes to foster confidence, transparency and cooperative approaches (e.g. certification of user institutions,[26] or framework contracts between research institutes and governments in providing countries);[27]
- Arrangements for compensation in cases where commercial benefits result from resources/information originally accessed for non-commercial academic research and that were deposited in the public domain (such as *ex-situ* resources in genebanks and microbial collections; publication of traditional knowledge), taking account of solutions in other interna-

26 Compare: Glowka (2001) *Towards a certification system for bioprospecting activities.* Study commissioned by the State Secretariat for Economic Affairs, Swiss State Secretariat for Economic Affairs.

27 Presentation of G. Nemoga Soto, held at the Swiss-Colombian side-event on models of contracts for non-commercial research at ABS WG 9.1 in Cali, Colombia and Nemogá Soto G (ed) (2010) Propuesta de ajuste al régimen de acceso a recursos genéticos y productos derivados y a la decisión andina 391 de 1996. Universidad Nacional de Colombia, Bogotá, Colombia: 275 pp.

tional instruments, such as the International Treaty for Plant Genetic Resources for Food and Agriculture. Collections and free access to collections for scientific and educational work are essential for the progress of science and must be safeguarded.
- Creation of simple access procedures for non-commercial academic research, to be balanced by adequate and practical control measures by users that are adapted to the situation in the user country, and efficient without creating additional administrative costs and efforts.

We advocate the use of model ABS contracts developed for non-commercial research purposes, especially in those situations where no national legislation is yet in place. This could expedite the ABS requirements for non-commercial research.
We advocate long-lasting partnerships between research institutes and providers to create transparence and confidence, in order to increase trust between providers and users of genetic resources.

7 Closing remarks

The basic principles of Access and Benefit Sharing (ABS) appear simple. However, many issues require careful evaluation, especially at the level of biodiversity. Geological changes, climate changes and human behavior all influence the evolution of biodiversity. Thus know-how and collaboration between different disciplines are mandatory to evaluate their impact.

As consequences of geological changes, water supplies and composition of the soil will be modified and possibly influence the genetic and the survival of distinct species. Such phenomena call for careful studies.

Not only biologists, but also specialists from other disciplines must work together to provide solid, scientifically-based information needed for the framework of ABS. First-rate scientific quality as well as objectivity are required. Evaluations should not be biased by commercial considerations. The Federal Office for the Environment (FOEN) knew that the Swiss Academy of Sciences (SCNAT) meets rigorous criteria which contribute to the development of tools in order to implement the Bonn Guidelines within the Swiss scientific community. The SCNAT is grateful for this opportunity to fulfill this fundamental task through participation in a fruitful collaboration.

The required expertise for ABS should come from interactions among scientists of the various countries involved. It is thus our hope that authorities will fully recognize the need to increase support of collaborative scientific projects with developing countries.

Denis Monard
President SCNAT

Annex 1

SCNAT ABS project activities regarding non-commercial research (in chronological order)

2010

Susette Biber-Klemm participates at the resumed WG-ABS 9.2 in Montreal as a science representative (10–16 Jul 2010)

The ABS team holds a lecture at the Universidad National en Bogotá, Colombia (25 Mar 2010), upon invitation by prof. Gabriel R. Nemogá.

Organization of and participation in an event during WG ABS-9 meeting in Cali, Colombia on ABS contracts for non-commercial academic research – two complementary models (23 Mar 2010).

Scientists – take action for access to biodiversity. Publication by Sylvia I Martinez and Susette Biber-Klemm. Current Opinion in Environmental Sustainability 2010, 2:27–33. doi:10.1016/j.cosust.2010.03.004 (Mar 2010).

Susette Biber-Klemm participates as a representative of public research in the CBD meeting of the Friends of the Co-Chairs of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, in Montreal, Canada, 26–29 Jan 2010.

Evaluation of the Draft ABS Agreement for non-commercial academic research with optional clauses (Feb 2010).

Evaluation of the Matrix on Research with Genetic Resources (Jan 2010).

Continuous lecture activities at Swiss universities and research institutes on ABS und academic research. Awareness raising among researchers. (Jan–Dec)

Presentation of ABS posters at several conferences in Switzerland and abroad (Awareness Raising Campaign).

2009

Launching of the Model Clauses project aimed at creating a minimal set of clauses specifically designed for the need of academic non-commercial research.

Continuous lecture activities at Swiss universities and research institutes on ABS und academic research (Jan–Dec).

Presentation of ABS posters at several conferences in Switzerland and abroad (Awareness Raising Campaign).

Concept and organization of a round table discussion on ABS and its impact and opportunities for academic non-commercial research, held during the DIVERSITAS Open Science Conference in Cape Town, 15 Oct 2009.

National survey to evaluate the usefulness of the publication: Good Practice for Academic Research (Jan 2009). The general feedback is positive, researchers perceive the Good Practice Manual as a useful tool to integrate ABS issues into the elaboration of research proposals.

Second workshop of the Interface project on commercial and non-commercial research held at the Swiss Academy of Sciences, Bern, 17 Mar 2009.

Second, lightly revised edition of the ABS Good Practice Manual appears in Jan 2009.

2008

Publication of Good Practice brochure in Spanish and French, (available online at http://abs.scnat.ch):

- Acceso y Participación en los Beneficios – Guía de buenas prácticas para la investigación académica con recursos genéticos
- Accès et partage – guide des bonnes practiques pour la recherche universitaire sur les ressources génétiques.

The SCNAT ABS Good Practice Manual is mentioned in the official CBD documents as a contribution of academia: http://www.cbd.int/doc/meetings/abs/abswg-07/official/abswg-07-02-en.pdf.

The SCNAT ABS Good Practice Manual is listed on the CBD website under existing instruments, guidelines and codes of conduct and tools addressing ABS: http://www.cbd.int/abs/instruments/.

Participation in and co-organization of a workshop on Access and Benefit Sharing for Non-commercial Biodiversity Research. Held at the zoological research museum Alexander König, Bonn, Germany (17–19 Nov 2008).

Organization of and participation in a very well-attended CBD event during COP9 regarding non-commercial academic research. Title: Access and Benefit Sharing – Challenges and Solutions for Academic Research. 19 May 2008.

Talk and poster presentation at the PreCOP research conference: Biodiversity Research – Safeguarding the Future, Bonn, Germany (14 May 2008).

Invited round-table panelist (S. Martinez) at CBD SBSTTA-13 in Rome, Italy, regarding ABS, Taxonomic Research and und Benefit Sharing. Organized by the CBD Global Taxonomy Initiative Coordination Mechanism (Dr. Christoph Häuser, Dr. Junko Shimura). 20 Feb 2008.

Frequent invitations to lecture at Swiss universities and research institutes regarding ABS und academic research.

Presentation of ABS posters at several conferences in Switzerland (Information campaign, dissemination of knowledge).

Publication of articles in many journals to promote the ABS Good Practice manual.

COST (European Cooperation in Science and Technology) project submitted to coordinate an ABS project.

First workshop of the Interface-project regarding non-commercial and commercial research held in Bern at the Swiss Academy of Sciences.

Submission of the GenEquiFair research proposal to the 7th EU European Research Framework Program (May 2008). The proposal was rejected due to a formal budget shortcoming.

Co-organization of a workshop on non-commercial research and ABS with the German Forschungsgemeinschaft (DFG Research Community), Germany's largest research funding organisation. Formation of the GenEquiFair network (15 May 2008).

Sylvia Martínez participates in the sixth Working Group Meeting on ABS in Geneva, Switzerland. This group is negotiating the International Regime on ABS (21–25 Jan 2008).

2007

Launching and promotion of an ABS consulting service for researchers in Switzerland.

Ingrid Kissling-Naef, secretary general, leaves the Swiss Academy of Sciences SCNAT and the ABS team in Jul 2007. Anne Jacob joins the SCNAT ABS team.

Publication of several articles in journals to promote the SCNAT ABS Good Practice publication on academic research.

Many lectures held at Swiss universities and research institutes regarding ABS und academic research in order to disseminate knowledge among scientists.

Presentation of the SCNAT ABS Good Practice publication at a workshop of the French Institut du développement durable et du droit international (IDDRI) in Paris.

2006

Publishing of "Access and Benefit Sharing – Good practice for academic research on genetic resources".

Launch of http://abs.scnat.ch website, supported by a national and international media campaign. The elaborated ABS tools are also applicable for researchers working in other countries (15 Jun 2009).

Several articles in professional journals announce the SCNAT ABS publication.

Presentation of the ABS project of the Swiss Academy of Sciences and the ABS Good Practice publication at an event during the fourth meeting of the CBD Working Group on ABS in Granada, Spain.

Presentation on the "International Certificate of Origin and Academic Research: Experiences, Reflections, Statements". European Regional Meeting on an Internationally Recognized Certificate of Origin/Source/Legal Provenance, Isle of Vilm, Germany, 25 Oct 2006. (German Federal Agency for Nature Conservation).

Publication on ABS in the journal Medicus Mundi by Susette Biber-Klemm.

2005

Elaboration of an ABS manual for scientists: Access and Benefit Sharing – Good practice for academic research on genetic resources.

International Workshop held at the Centre de Recherches Scientifiques in Abidjan, Côte d'Ivoire, to discuss the draft of the Good Practice Manual with researchers in Africa (22–25 Aug 2005).

Consultation of the draft for the ABS project Advisory and Steering Group.

Presentation at the workshop "Implementing the Bonn Guidelines by Specific User Groups" published in: "Access and Benefit-Sharing of Genetic Resources – Ways and means for facilitating biodiversity research and conservation while safeguarding ABS provisions". Report of an international workshop in Bonn, Germany, Germany, 8–10 November 2005. German Federal Agency for Nature Conservation, BfN-Skripten 163, 2005.

Elaboration of Recommendation of the Swiss Academy of Science on behalf of Access and Benefit Sharing of Genetic Resources (ABS), Dec 2005.

2004

Presentation of the Swiss ABS project at the meeting of the German "Arbeitskreis Biodiversitätsforschung: Ressourcenzugang und gerechter Vorteilsausgleich" of the Deutsche Forschungsgemeinschaft DFG in Göttingen, Germany (2 Jul 2004).

Survey of Swiss universities and research institutions on the state of knowledge and existing experiences on ABS among researchers in Switzerland. Compilation of past and present biodiversity research projects affected by ABS.

Workshop to evaluate the first draft of the ABS project at the conference of the International Association for the Study of the Commons in Oaxaca, Mexico (9–13 Aug 2004).

2003

The Swiss Academy of Sciences accepts the first mandate of the Federal Office for the Environment (Dr. François Pythoud) to develop an instrument to implement the Bonn Guidelines among academia in Switzerland. Team members are Ingrid Kissling (secretary general, Swiss Academy of Sciences SCNAT), Susette Biber (University of Basel), and Sylvia Martínez (Swiss Biodiversity Forum, SCNAT).

Annex 2: Agreement on Access and Benefit Sharing for Non-Commercial Research

Sector specific approach containing Model Clauses

Introduction

This document contains a sample agreement on mutually agreed terms (MAT) for Access to Genetic Resources and Sharing of Benefits, for the use by providers and non-commercial academic researchers.

At the same time it provides a sample for the potential of model clauses within a sector specific approach; as comprised in Art. 15 of the Draft Protocol on ABS under the CBD.[1]

The agreement aims at creating transparent, and legally secure relations that are appropriate to the needs and intentions of all parties involved. The suggested terms and clauses are intended to meet the needs of both the providers of the genetic resources and the researchers seeking access. The agreement proposes language to ensure fair and equitable sharing of benefits.

The agreement may be considered for use in various scenarios of access and benefit sharing, such as inventories of biodiversity; research in systematics, ecology and evolution; identification and isolation of active compounds; and genetic research.

Background

Since the publication of "Access and Benefit Sharing – Good practice for academic research on genetic resources[2]" by the ABS team of the Swiss Academy of Sciences (2006), we have been frequently asked by researchers to develop standardized agreements that could be used to provide legal security. ABS authorities and clear national regulations may be unavailable in many countries where genetic resources are sought. The ABS agreement presented here aims to fill the gap where no national tools are available or in cases where agreements focus on commercial activities and are not applicable to non-commercial research. Its goal is to ease the negotiations of the MATs, to support transparency and enhance mutual trust, and to prevent unnecessary transaction costs in its negotiation and implementation.

Elaboration

The Swiss Academy of Science's ABS team assessed existing agreements, material transfer agreements and other documents, analysed them for content and language and compiled a list of issues to be addressed.

In addition, the team defined the research steps that are essential in view of access and benefit sharing and elaborated a matrix that meticulously analyses the research fields and steps from this perspective.[3] A broad international network of providers and users from different fields of research reviewed the matrix and a first agreement draft. Feedback was incorporated into successive drafts that were repeatedly reviewed.

Our core goal was to use concise legal language while keeping the wording understandable to non-lawyers. Explanatory text was included to enhance the applicability of the agreement and to give background information.

Concepts

The Agreement is adapted to the specific situation of non-commercial research sponsored by public funding. Its basic premise is that the Mutually Agreed Terms, as stipulated in CBD Art 15, are a bilateral contract concluded between providers and users, resulting from their fair negotiations on the terms of access and benefit sharing.

Involved parties are encouraged to take account of each other's specific needs and circumstances, reflecting on the type of envisaged research (e.g. ecological vs. phytopharmacological research) and the specifics of the research (e.g. difficulties in identifying taxa, sharing of material). For the provider, this may include means to monitor the use of genetic resources.

We assumed the following basic scenario:

- The resources are accessed by a researcher under the lead and responsibility of a research institute.
- The research is non-commercial, aiming at providing publicly available results. The results have therefore to be published.
- Unexpected research results may trigger reflections towards their utilisation in a commercial context.
- Benefits are non-monetary as a rule. They usually accrue during the research process.
- Genetic resources might be transferred to third parties under a framework of customary cooperation by research institutes.

The analysis of research types and access situations carried out by the ABS-team led to the following conclusions:

1. One of the challenges in implementing the ABS system consists in controlling the flow of the acquired resources throughout the value chain, especially in the user country. At the centre of the problem lies

[1] In the version of 16 July 2010 as negotiated by the Interregional Negotiating Group:. *UNEP/CBD/COP/10/5/Add.4, Annex*

[2] Susette Biber-Klemm, Sylvia Martinez, Swiss Academy of Sciences (ed) (2009) Access and Benefit Sharing – Good practice for academic research on genetic resources. Bern, Switzerland. http://abs.scnat.ch

[3] See supra 5.3.1

the risk that the resources and related information accessed under the conditions for non-commercial intent enter the R&D sector without corresponding MATs for potential commercial developments.

2. Non-commercial researchers depend largely on public funding. For continued financial support the publication of research results is a crucial step and has to happen in a timely manner. Scholarly standards for disclosure of information for scientific transparency and the exchange of material among peers may collide with the need of providers to control the use of genetic resources. In turn, too strict control measures could put research at stake.
3. *Different fields of research* with genetic resources imply *different degrees of probability* that the research results flow (intentionally or unintentionally) into the commercial value chain. It is, however, essential to realize that some fields of research show very low probability, for example the elaboration of biodiversity inventories or ecological studies. In such cases the providing country could require less control over the uses and instead request periodic reports on research progress to monitor the user's compliance with the MATs.

The Agreement takes account of various research activities by proposing options for the following conditions:

1. Different situations (e.g. access to genetic resources vs. access to related traditional knowledge; access to specified taxa vs. the need to identify the samples after collection);
2. Different models of research cooperation; and diverse needs to monitor the implementation of the agreement;
3. Specific aspects of academic research, such as the need to publish results and the exchange of data, storage and accessibility of samples etc.

How to use the Agreement

The Agreement on Access to Genetic Resources and Sharing of Benefits (ABS) for Non-commercial Academic Research containing Model Clauses is based on the conviction that mutually agreed terms are a contract that needs to be negotiated and concluded between the parties, i.e. the providers and the users of genetic resources. The proposed Agreement provides a toolbox for composing a contract on mutually agreed terms tailored to accommodate the needs of the stakeholders. We recommend that both parties possess the *full text* of the Agreement in order to foster discussions on options and provide solutions to disagreements that might arise.

The Agreement consists of different types of clauses: 1) general clauses, like the preamble or the definition of the purpose (article 4); 2) clauses on substantive issues (articles 5 to 17); and 3) clauses on procedural issues. Most of the clauses offer a basic clause (marked blue in the sample agreement) and include options that can be added to the basic clause or used as a stand-alone solution. Other clauses offer only options to choose from as needed.

In drafting the agreement, we intended to cover most issues that might arise in the relationship between providers and non-commercial public researchers. The basic clauses by themselves may form a full contract for simple non-commercial research situations. Not all cases will need all clauses; each agreement must be modelled according to the specific needs of the parties engaged in the negotiations. The Agreement is therefore made freely available under a Creative Commons Licence that allows for changes in the document[4].

Outlook

It is with great pleasure that the Swiss Academy of Sciences makes available to interested stakeholders this example of an ABS agreement with model clauses. It is a tool to actively support the implementation of ABS regulations and focuses on academic non-commercial research. The proposed Agreement still needs to prove its applicability to real ABS situations. Accordingly, it should be considered as a draft that needs to be adapted to the final version of the CBD ABS protocol and which will need improvement over time. Suggestions and feedback by both providers and users are most welcome.[5]

[4] http://creativecommons.org/licenses/by-nc/3.0; http://abs.scnat.ch
[5] abs@scnat.ch

The Agreement

Comments

The Convention on Biological Diversity (CBD) in its Article 1 sets out the following objectives: 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, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Under Article 15 CBD access to genetic resources is to be facilitated for environmentally sound use. Access is based on the prior informed consent of the Party providing the resource. Providers and Users are to negotiate the mutually agreed terms defining the sharing of benefits.

Article 16 CBD recognizes that both access to and transfer of technology are essential elements for achieving the objectives of the Convention. It requires the Parties to provide and facilitate access to and transfer of technologies relevant for conservation and sustainable use of biological diversity as well as to use the technology in an environment friendly way.

The mentioned provisions, in our view, express the very essential principles of access and benefit sharing embraced by the CBD. Parties are however free and encouraged to regulate their relation in accordance with other principles and rules stipulated in the CBD such as Article 7 (Identification and Monitoring), Article 12 (Research and Training), Article 17 (Exchange of Information), Article 18 (Technical and Scientific Cooperation) or Article 19 (Handling of Biotechnology and Distribution of its Benefits).

The Agreement has been drafted solely for the relevant institutions as the parties to the Agreement. The "Provider" is the national authority of the involved provider country in accordance with its national law. It is responsible for fulfilling the obligations under Article 10.

The Agreement could also be applied in negotiations with delegated entities such as federal governments. However, it is not apt to cover cases where, according to the national law of the provider, (additional, ancillary) agreements have to be concluded with private parties, such as a land owner.

The User can only be a research institution; an individual researcher may only act on behalf of it.

If the Provider is a holder of traditional knowledge (TK)[1], a separate Agreement between researchers (as the User) and the holder of traditional knowledge (indi-

[7] The drafting of specific agreements and codes of conduct is planned.

The Agreement

Preamble

The purpose of this Agreement is to set out the conditions for the use of genetic resources, any associated Traditional Knowledge (TK) and the sharing of resulting benefits between the parties concerned in accordance with the Convention on Biological Diversity (CBD), particularly in respect with the principles established under its Articles 1, 8(j), 15, and the Bonn Guidelines.

The Agreement contains Mutually Agreed Terms (MAT) according to Article 15.7 CBD.

The Agreement is designed to promote non-commercial academic research, such as research in taxonomy, ecology, biochemistry and genetics, and to foster conservation and the environmentally sound and sustainable use of genetic resources.

Its objective is to provide a sound basis for cooperation, transparency, communication and trust between the parties to the Agreement, taking account of the concerns of both providers and users of genetic resources.

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1. Parties to the Agreement

The Agreement is entered into on *[insert the date]* by and between

[insert the name and details of the following:

- *State and Institution (relevant competent national authority)*
- *The contact person responsible for the implementation of the Agreement on behalf of the institution]*

together hereinafter referred to as the *"Provider"*.

and

[insert the name and details of

vidual, community, legitimate representative of the community) needs to be concluded.
The present Agreement takes into account the concerns of the TK holders to the extent possible in negotiations between research institutes and governmental agencies.
The data of both the User and Provider serve as reference and contact point in the communication between the parties. From the perspective of the Provider, the relevant research institution shall be held as the responsible body during the term of the Agreement. On the side of the User, a relevant national agency or authority will be responsible for maintaining the Agreement.

- *The responsible research institution*
- *The representative of the research institution responsible for the implementation of the Agreement]*

Represented by the authorized head or member of the research team; authorized researcher

[insert the name and details of researcher].

together hereinafter referred to as the *"User"*.

Article 15 CBD states that access to the genetic resource shall be subject to prior informed consent of the Party providing access.
Article 2 provides for two different solutions.

2. Prior Informed Consent

Option 2.1. applies to cases where access to genetic resources is subject to a formal Prior Informed Consent (PIC) by the Provider.

Option 2.1
The Agreement is based on the Prior Informed Consent (PIC) issued beforehand by the Provider to the User for the access to the genetic resources concerned. The PIC document is attached to this Agreement and is considered an integral part of the Agreement.

Option 2.2 applies to cases where the Provider determined that PIC can be included in the MAT.

The research project of the User should include information on resources to be access, planned utilization and prospective or intended benefits to be shared.

Option 2.2
The Provider hereby confirms that he/she has been informed on the research project by the User and consents to provide access to genetic resources in situ and/or ex situ necessary to carry out the research in accordance with the research project attached to this Agreement.

If access is requested for a research project that includes Traditional Knowledge (TK) associated to the genetic resources, the sharing of benefits in relation to TK is to be agreed upon in a separate, ancillary agreement with the holders of the TK and according to the national law of the providing country if such legislation exists.

3. The Purpose of the Agreement

The purpose of this Agreement is to specify the terms for

1. Accessing genetic resources,
2. Their utilization in accordance with the PIC,
3. Their possible transfer to third parties, and
4. For sharing the benefits resulting from the utilization of genetic resources.

This article contains standard definitions of the terms used in the Agreement. The Parties are however free to replace or customize the terms in accordance with their needs and in particular in accordance with the planned research activities. They can also opt between narrow or broader definitions by excluding or including different options.

4. Terminology

In this Agreement the terms defined in Article 2 CBD shall have the same meaning, unless otherwise defined in this article.

4.1 Genetic Resources
Genetic Resources means genetic material of actual or potential value.

Option 4.1.1
Genetic Material means any material of plant, animal, microbial or other origin containing functional units of heredity.
Option 4.1.2
The term "Genetic Material" includes living and dead resources.
Option 4.1.3
The term "Genetic Material" includes derivatives as defined below.

4.2. Derivatives
Option 4.2.1
Derivatives means products based on Genetic Resources and generated through techniques such as expression, replication, characterization or digitalization
Option 4.2.2
Derivatives mean substances created from Genetic Resources that are substantially modified to have new properties.

The definition of commercialization was drafted to reflect acts and activities that simultaneously serve as indicators of commercialization.
In our view it is more practical to focus on activities for identifying the transfer of resources to commercial sectors than to rely on the intent of the user.

4.3 Commercialization
Commercialization means the use of the Genetic Resource for the generation of any kind of actual or potential economic profit.
It means in particular any sale, lease, licensing of the Genetic Resource, and/or Products generated from its use through actions such as filing a patent application, obtaining intellectual property rights or other tangible or intangible rights.
It includes any transfer of the Genetic Resource to a for profit organization.

The Mutually Agreed Terms can be contained in one document, or in a main document and ancillary agreements with specific stakeholder groups.

4.4 Mutually Agreed Terms (MAT)
The Mutually Agreed Terms are an agreement negotiated between the Provider and the User of the Genetic Resources and/or holders of Traditional Knowledge associated to the Genetic Resources according to the national law of the country providing the resources. The MAT regulate conditions for the access to the Genetic Resources and to their associated Traditional Knowledge and the fair and equitable sharing of benefits that result from their use. They are adapted to the specific access situation.

4.5 Traditional Knowledge
Option 4.5.1
Traditional Knowledge is the accumulated knowledge that is vital for the conservation and sustainable use of biological resources and/or which is of socioeconomic value, and which has been developed over the years in indigenous/local communities.

Option 4.5.2
Traditional Knowledge means "information or individual or collective practices of an indigenous or local community associated with the genetic heritage having real or potential value".

PIC may consist in a research permit.

4.6 Prior Informed Consent (PIC)
Prior Informed Consent means the unilateral declaration of the Provider that he/she has been informed about the planned research and that he/she is willing to provide the required access to the Genetic Resource.

4.7 Product
Product means the result produced, obtained, extracted or derived from the Genetic Resource through research or research & development (R&D) activities, including data and information generated through analyses of the Genetic Resources.

4.8 Progeny
Progeny means unmodified offspring from the Genetic Resource

Regarding the relation with Third Parties see Art. 8.

4.9 Third Party
Third Party means any person or institution other than the Provider, the User and any collaborator under their control or supervision. A Third Party is not bound to the terms and conditions of this Agreement unless otherwise agreed with the User.

4.10 Unauthorized Person
Unauthorized Person means any person that came into possession of the Genetic Resources without the authorization of the User.

Here, the Parties may list names of species or strains of the material to be accessed or any other attributes that may help to define the genetic resources.

5. Genetic Resources to be accessed
The User shall have access to the following Genetic Resource(s):
[Insert list of the Genetic Resources to be accessed].

The list may include identified and unidentified species. If there are unidentified species/strains in the submitted list, option 5.2 applies.

Option 5.1
Since the species/strains present at the collection site are not know to the User at the time of concluding this Agreement, a general account of species/strains most likely to be collected is given in Annex *[XX]*.
A list of the collected samples according to the researcher's field-notes is presented to the Provider within *[XX]* months after having gathered the samples.

Option 5.2
If the collected samples cannot be identified in the list of collected samples within the above prescribed period, their identification has to be shared with the User as soon as it is available.

6. Utilization

The Material may be utilized for non-commercial purposes including for academic research and collections, and for training, teaching and education.
The User must comply with the User's and Provider's national regulations and with relevant international law. The utilization of the Material or derived information for any type of Commercialization is prohibited.

Option 6.1
The Genetic Material shall be used exclusively for the following purposes: *[insert allowed activities and/or uses]*.

7. Change in Utilization from Non-Commercial to Commercial

The Commercialization of the Genetic Material and related information is prohibited.
Any change in utilization from non-commercial to commercial shall require a new Prior Informed Consent in writing issued by the Provider. In this case, the terms of such Commercialization shall be subject to a separate agreement (MAT) between the involved parties.

8. Transfer of Genetic Resources (and Associated TK) to Third Parties

It is important that the User binds Third Parties to the terms of this Agreement in order to avoid uncontrolled flow of genetic resources.
If institutions or persons are appointed for specified analytical and technical auxiliary work, the conditions of this Agreement must be included in the contract regulating the cooperation.

Transfer of the Genetic Resources for the purposes of academic research and collections, and for training, teaching and education, or any other non-commercial activities is allowed under the condition that the User ensures that the subsequent person or institution (Third Party) is informed about the provisions under this Agreement and undertakes to pass on the Genetic Resources under the same obligations to any further recipient.

Options 8.1–8.4 establish different levels of control. Parties should include those that reflect the appropriate level of control in accordance with their needs.

Option 8.1
The User delivers to the Provider annually a *list of the Third Parties* to whom the Genetic Resource was transferred to.

Option 8.2
The User shall maintain retrievable records of any transfer of the Genetic Resources to Third Parties under the conditions corresponding to this Agreement.

Option 8.3
The User shall require the Third Party to sign an agreement containing identical obligations on Use and Transfer of the Genetic Resources (and associated TK) as set out in this Agreement.

Option 8.4 is an extremely limiting measure. It is meant primarily in cases where the Material has associated TK. Given the current problem regarding the protection of TK, we assume that the Provider may have an interest to

Option 8.4
The Genetic Resources (and their associated TK) may be transferred to Third Parties only after having obtained the *written consent of the Provider* and in accordance

keep knowledge secret and therefore may want strict control on any further transfer of the Material and TK.

with Mutually Agreed Terms between the Provider and the Third Party. Excempted is a temporary transfer of the Genetic Resource to taxonomic specialists for scientific identification.

Option 8.5
The User is entitled to deposit the Genetic Resources in collections that are accessible without restrictions for research purposes such as herbaria, museums and culture collections.

Option 8.6
If the Genetic Resources are transferred to an *ex situ collection of living Genetic Resources for educational purposes* (such as zoos, botanic gardens), this institution is – in addition to the obligations of this Agreement – obliged to take any appropriate precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.

Researchers may face the problem that the conditions or restrictions with respect to handling the Material are not clearly known or indicated (e.g. on the sample). Therefore even if they want to comply with restrictions they fail.
This provision aims at eliminating any liability of the User in cases where the special conditions/restrictions of use are not communicated properly. This includes not marking the sample itself or not providing reference to information e.g. in the internet.

Option 8.7
If the use or storage of the Genetic Resource is subject to *special conditions or restrictions*, such conditions/ restrictions have to be *clearly indicated on the label* or otherwise linked to the sample, when transferring the Genetic Resource to Third Parties, including the indication of where the information concerning the special conditions/restrictions can be found.

The list under Article 9 enumerates a minimal standard of benefits that in our view should always be shared if applicable.
Parties to the Agreement are encouraged to extend the list and add other benefits as well. For this purpose, we attach as an annex to this Agreement a list of non-monetary benefits as specified in the Bonn Guidelines. These benefits may be included in Article 9 of the Agreement. The Parties are free to go beyond the benefits encountered in the list and add others as well.

9. Benefit Sharing
The benefits arising from the access and use of the Genetic Resources shall be shared fairly and equitably by the User, in accordance with the principles established in the CBD. Basic benefits to be shared include:

1. The offer to the Provider to include local researchers in the research activities, if such interest exists.
2. In case of publications or oral presentation of the research results, full acknowledgement is to be given to the source of the Genetic Resource;
3. If TK associated to the Genetic Resources is involved, the research results published or presented orally will include full acknowledgement of the source of the Genetic Resources and the TK, if so required by the providers.
4. The Provider will receive a copy of all publications;
5. Research results will be communicated to involved stakeholders (e.g. communities, indigenous people) in an adequate manner and according to reasonable requirements of the Provider;
6. If applicable, share duplicate specimens wih the

repository in the Provider country in accordance with good scientific practice.

In addition, the User agrees to share the following benefits:

[Choose from the list of benefits appended to this Agreement; insert a detailed lists of benefits here or in an annex]

10. Rights and Obligations of the Provider

The Provider defined in Article 1 is the responsible contact point for the User for the entire duration of the present Agreement.

The Provider has the obligation to facilitate access to the Genetic Resources. This includes the facilitation of the acquisition of other permits required in accordance with the relevant national or regional regulations in the Provider country as well as export permits.

This is a technical contact point. It might be a different institution than defined in Article 1. The technical contact point will act on behalf of and as mandated by the institution in Article 1.

Different options regarding the Providers' right to obtain information on the state of research are defined in Article 12 (Reporting).

Option 10.1

The Provider designates the following institution *[insert the relevant institution]* as the responsible contact point for the User for the entire duration of the present Agreement.

Contact details of the technical contact point are provided in annex *[XX]* to this Agreement.

The Provider has the right to receive information on the state of the research from the User as agreed upon (see Article 12 on Reporting).

By performing part of the research in the Provider's country, researchers in the host country have the opportunity to be fully integrated in the research. However, we prefer to treat the provision as a "right of the Provider" rather than as a "benefit sharing" arrangement due to the fact that such right is highly dependent on the technical capacity of the Provider.

Option 10.2

The Provider requests that the following analytical parts as set out in the project are performed in the providing country: *[insert a list of analyses to be performed in the Provider's country].*

The Provider confirms that all necessary conditions (equipment, staff and consumables) for conducting the analyses are available;

The User confirms that he/she has the necessary resources (funding, time) for such an arrangement.

If the Provider (in contrast to the User) intends to obtain a patent on the results, it is necessary to refrain from disclosing information (e.g. publishing research results in journals). It would impede the protection of the results by intellectual property rights due to the lack of novelty.

11. Rights and Obligations of the User

The User is entitled to administrative support and guidance to facilitate the acquisition of the necessary permits required by the Providing country.

The User shall not use the Genetic Resource nor derivatives generated in the research for any commercial purposes, nor shall the User commercialize any Product derived from the Genetic Resource, unless with the written consent of the Provider.

The User is obliged to take all reasonable precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.

The User is obliged to inform the Provider about any unforeseen research results that are of potential com-

mercial interest, prior to any disclosure of this information to the public.

The reference to international law regulating TK includes for example: 1948 Universal Declaration of Human Rights, International Labour Organization ILO Convention 169, The Rio Declaration and Agenda 21, the Convention on Biological Diversity, etc.
It is a right of the Provider to instruct the User how to exploit the material if it is associated with TK. Instructions may be included in this Agreement as its integral part either through an additional article stipulating the terms and conditions of use or annexed to the Agreement.
For ethical standards see: International Society of Ethnobiology (2006). ISE Code of Ethics (with 2008 additions). Online: http://ise.arts.ubc.ca/global_coalition/ethics.php;
Elements of a Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities. Report of the Sixth Meeting of the Ad Hoc Open-ended inter-sessional Working Group on Article 8 (j) and related provisions of the Convention on Biological Diversity. UNEP/CBD/COP/10/2; 21 November 2009.

Option 11.1
If the research implies TK associated to the Genetic Resource, the User is obliged to respect any relevant international law and the national and regional regulations in the Provider's country, and has to proceed according to the instructions of the Provider. In any case the User is obliged to respect the customary law of the holders of the TK and has to apply ethical standards.

Such an ancillary contract will depend on the requirements of the relevant national law in the Provider country regarding the obligation to conclude contracts with sub-national entities (federal governmental bodies, TK holders, indigenous or local communities, private land owners) .

Option 11.2
Corresponding to national law the User will conclude an ancillary contract with the holders of TK and/or the private land owners of the genetic resources.
The ancillary contract forms an integral part of this Agreement.

12. Data Sharing

This provision has the purpose to establish a long-term access to data generated by the User, which goes beyond the information that can be found in publications. It is up to the Provider to spell out the information of the vital interest for him/her. This provision should contain the precise description of the information/data required and the manner of the data transfer, such as time period, communication means, etc.
Parties to the Agreement should account for potential barriers that transfer of data may bring along and regulate it as detailed as possible. For example, if there is a language barrier between the Provider and the User, the Parties should define the official language to operate with, or to define the particular standard to be used, if there would be more options, and so on.

The User agrees that the Provider has the right to access the following data resulting from the research:
- *[insert here type of data]*

The User shall facilitate access to the above defined data for the Provider.
The Provider agrees that for using the data in his own research, he/she needs the consent of the User.

The Reporting obligation may depend on the particular nature of the research and the interest of the Provider.

Option 12.1
Given the cooperative approach to the research, the Provider and the User agree in a separate agreement on

He/she may request different amounts of information in a varying periodicity.

Therefore, we offer different options that may meet the needs of the parties, depending of the complexity of data included and the time schedule.
However, Parties may tailor any of these options to make it more suitable to their convenience or they can stipulate a new provision that will entirely reflect their needs. They are free to specify in a more detailed manner the reasonable content and the structure of the Report as well as the time period within which the Report should be submitted.

Article 15 on Publication treats in its option 15.3 the case where a Provider himself wants to apply for an intellectual property right.
Article 7 deals with the Change of Utilization from non-commercial to commercial.

the use of the data, annexed to this Agreement *[Annex XX]* and forming its integral part.

13. Reporting

The User will deliver a written report in accordance with the Provider´s instructions as to its structure, information included, etc, upon his/her request.

Option 13.1

The User shall submit an annual written report on the research accomplished.

Option 13.2

Upon request of the Provider, the User submits a written report on the research accomplished.

Option 13.3

Upon request of the Provider, the User submits an annual written report on the research accomplished. The report shall include a list of Third Persons to whom the Genetic Material has been transferred.

Option 13.4

Since the *Provider* is a private citizen, upon his/her request, the report is translated into the local language by the User and adapted to a non-scientific audience.

14. Intellectual Property Rights

The User shall not claim any intellectual property rights over the Genetic Resource in the form received.
If the User wants to obtain intellectual property rights on research results such act shall be treated as change in utilization and thus shall be regulated under Article 7 of the present Agreement.
If the *Provider* wishes to obtain IPR on research results, such act shall be treated as change in utilization and shall be regulated under Article 7 of the present Agreement. In particular the ownership of the IPR and the distribution of the value derived from the IPR are to be negotiated.

15. Publications

The User has the right to publish the results of the research related to the Genetic Resource according to Article 6 of the present Agreement, and according to good scientific practice. The origin of the Genetic Resource has to be acknowledged.

Option 15.1

The User has the right to publish the results of the research related to the Genetic Resource according to good scientific practice. The origin of the Genetic Resource has to be acknowledged, as well as the sources of TK associated with the Genetic Resource.

Option 15.2
The holder of TK associated to the Genetic Material has the right to request confidentiality of specific information *[describe the information subject to confidentiality]* such as for spiritual reasons; to prevent the depletion of the genetic resources; and/or to prevent unsafe/hazardous applications of the TK in the health sector.

Option 15.3
If the User, in the course of the research, discovers any unforeseen commercial potential of the Genetic Material, he/she is obliged to share such information with the Provider prior to any publication of such information.
If the Provider intends to pursue a potential commercialization, this is subject to negotiations between the Provider and the User according to Article 7. The Provider agrees not to hold up the User's research work unless concerns are concrete and justified in terms of well-defined proprietary interest.

This option takes account of the Provider's concerns that published results may reduce his/her opportunity to derive commercial value from his/her genetic resources.
On the other side, it takes account of the User's interest that the Provider's decision to commercialize the material does not significantly impede or delay research.

Option 15.4
If the User is prevented from publishing the results of the research due to the Provider's wish to obtain a patent over the research results, the Provider shall file the patent application within *[XX]* months. After the agreed period, if the Provider has failed to file a patent application, the User has the right to proceed with the publication of the research.

16. Handling of the Genetic Material after Termination of the Agreement

Upon completion of the project, Genetic Material will be stored or disposed of according to the utilization agreed under Article 6.

Option 16.1
If the Genetic Material has been placed in storage, or in public collections, upon expiration of the Agreement or its termination, the Genetic Material may be available for use only under the same conditions as contained in this Agreement.

17. Duration and Termination of the Agreement

The present Agreement shall end on *[insert the date]* and may be renewed upon mutual agreement of the Parties.

The purpose of the provision is to preserve certain rights and obligations that are independent of the duration or termination of the present Agreement. This, in general, means that even if the present Agreement is not in force the User is obliged to keep secret all the information defined as a trade secret by the Provider and

Option 17.1
The present Agreement shall be deemed to be in force until the Genetic Material is returned to the satisfaction of the Provider upon the completion of the Project. Regarding the Genetic Material related information, the present Agreement shall be subject to any associ-

not disseminate it to any Third Party after the present Agreement ceases to exist.

ated rights, such as copyright or trade secrets.

Option 17.2

When a Party to the present Agreement wants to terminate the Agreement prior to the completion of the Project, the Party shall give written notice *[XX]* months in advance.

The present Agreement may be terminated at any time by mutual agreement of the Parties.

The present Agreement may be terminated immediately, in case of its breach.

The Parties to the Agreement are free to establish competence of any court they agreed upon for potential disputes arising from the Agreement. They can also opt for arbitrage or to include any independent third party. However, we believe that it is important to encourage them to try to negotiate any disputes before reverting to any court.

18. Settlement of Disputes

The Parties agree to make attempts in good faith to negotiate the resolution of any disputes that may arise under this Agreement. If the Parties are not able to resolve a dispute within a period of *[XX]* months, such dispute shall be finally settled by an arbiter to be mutually agreed between the Parties.

Option 18.1

If the Parties are not able to resolve any dispute within a period of *[XX]* months, such dispute shall be resolved before the *[XX]* Court as the only competent body for resolving disputes arising under this Agreement and in accordance with *[XX]*.

[Insert applicable law; jurisdiction]

Parties may also include provisions on other matters of their importance and regulate issues such as Warranties, Forcee Majeure, Disclaimer.

19. Other Provisions

Indicative list of non-monetary benefits (adapted from the CBD Bonn Guidelines)

- Sharing of research and development results;
- Collaboration, cooperation and contribution in scientific research and development programmes, particularly biotechnological research activities, where possible in the provider country;
- Performing certain analytical parts of the research in the providing country to the extent that adequate equipment is available and the User has the necessary resources (funding, time) for such arrangement.
- Participation in product development;
- Collaboration, cooperation and contribution in education and training;
- Admittance to ex situ facilities of genetic resources and to databases;
- Transfer to the provider of the genetic resources of knowledge and technology under fair and most favorable terms, including on concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity;
- Strengthening capacities for technology transfer to user developing country Parties and to Parties that are countries with economies in transition and technology development in the country of origin that provides genetic resources. Also to facilitate abilities of indigenous and local communities to conserve and sustainably use their genetic resources;
- Institutional capacity-building;
- Human and material resources to strengthen the capacities for the administration and enforcement of access regulations;
- Training related to genetic resources with the full participation of providing Parties,and where possible, in such Parties;
- Access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies;
- Contributions to the local economy;
- Research directed towards priority needs, such as health and food security, taking into account domestic uses of genetic resources in provider countries;
- Institutional and professional relationships that can arise from an access and benefit-sharing agreement and subsequent collaborative activities;
- Food and livelihood security benefits;
- Social recognition;
- Joint ownership of relevant intellectual property rights.

Acknowledgment

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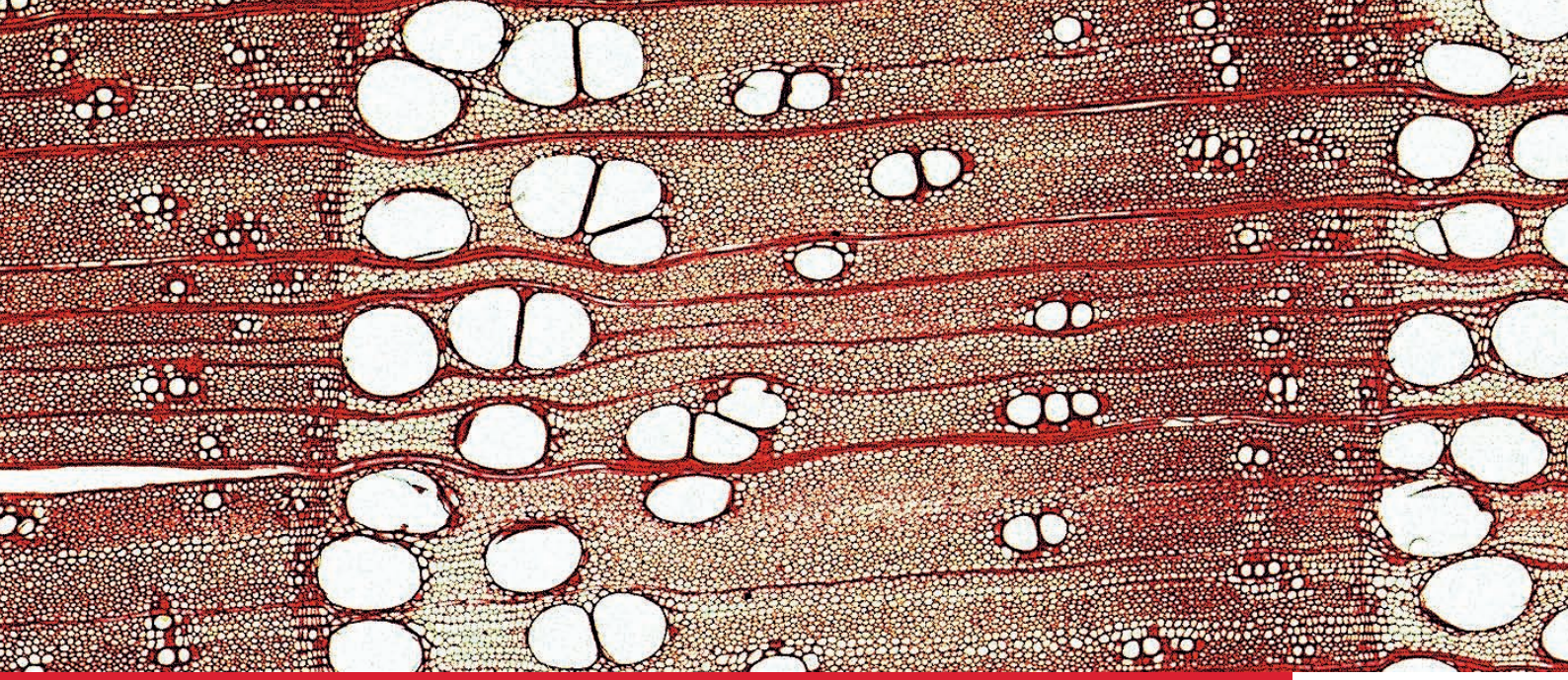

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Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles

Agreement on Access and Benefit Sharing for Non-Commercial Research

Sector specific approach containing Model Clauses

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Introduction

This document contains a sample agreement on mutually agreed terms (MAT) for Access to Genetic Resources and Sharing of Benefits, for the use by providers and non-commercial academic researchers.

At the same time it provides a sample for the potential of model clauses within a sector specific approach; as comprised in Art. 15 of the Draft Protocol on ABS under the CBD.[1]

The agreement aims at creating transparent, and legally secure relations that are appropriate to the needs and intentions of all parties involved. The suggested terms and clauses are intended to meet the needs of both the providers of the genetic resources and the researchers seeking access. The agreement proposes language to ensures fair and equitable sharing of benefits.

The agreement may be considered for use in various scenarios of access and benefit sharing, such as inventories of biodiversity; research in systematics, ecology and evolution; identification and isolation of active compounds; and genetic research.

Background

Since the publication of "Access and Benefit Sharing – Good practice for academic research on genetic resources[2]" by the ABS team of the Swiss Academy of Sciences (2006), we have been frequently asked by researchers to develop standardized agreements that could be used to provide legal security. ABS authorities and clear national regulations may be unavailable in many countries where genetic resources are sought. The ABS agreement presented here aims to fill the gap where no national tools are available or in cases where agreements focus on commercial activities and are not applicable to non-commercial research. Its goal is to ease the negotiations of the MATs, to support transparency and enhance mutual trust, and to prevent unnecessary transaction costs in its negotiation and implementation.

Elaboration

The Swiss Academy of Science's ABS team assessed existing agreements, material transfer agreements and other documents, analysed them for content and language and compiled a list of issues to be addressed. In addition, the team defined the research steps that are essential in view of access and benefit sharing and elaborated a matrix that meticulously analyses the research

[1] In the version of 16 July 2010 as negotiated by the Interregional Negotiating Group: UNEP/CBD/COP/10/5/Add.4, Annex

[2] Susette Biber-Klemm, Sylvia Martinez, Swiss Academy of Sciences (Ed.) 2009: Access and Benefit Sharing – Good pratice for academic research on genetic resources. Bern, Switzerland. http://abs.scnat.ch

fields and steps from this perspective.[3] A broad international network of providers and users from different fields of research reviewed the matrix and a first agreement draft. Feedback was incorporated into successive drafts that were repeatedly reviewed.

Our core goal was to use concise legal language while keeping the wording understandable to non-lawyers. Explanatory text was included to enhance the applicability of the agreement and to give background information.

Concepts

The Agreement is adapted to the specific situation of non-commercial research sponsored by public funding. Its basic premise is that the Mutually Agreed Terms, as stipulated in CBD Art 15, are a bilateral contract concluded between providers and users, resulting from their fair negotiations on the terms of access and benefit sharing.

Involved parties are encouraged to take account of each others specific needs and circumstances, reflecting on the type of envisaged research (e.g. ecological vs. phytopharmacological research) and the specifics of the research (e.g. difficulties in identifying taxa, sharing of material). For the provider, this may include means to monitor the use of genetic resources.

We assumed the following basic scenario:

- The resources are accessed by a researcher under the lead and responsibility of a research institute.
- The research is non-commercial, aiming at providing publicly available results. The results have therefore to be published.
- Unexpected research results may trigger reflections towards their utilisation in a commercial context.
- Benefits are non-monetary as a rule. They usually accrue during the research process.
- Genetic resources might be transferred to third parties under a framework of customary cooperation by research institutes.

The analysis of research types and access situations carried out by the ABS-team led to the following conclusions:

1. One of the challenges in implementing the ABS system consists in controlling the flow of the acquired resources throughout the value chain, especially in the user country. At the centre of the problem lies the risk that the resources and related information accessed under the conditions for non-commercial intent enter the R&D sector without corresponding MATs for potential commercial developments.

[3] See: Swiss Academy of Sciences (2010) ABS Program 2003–2010.

2. Non-commercial researchers depend largely on public funding. For continued financial support the publication of research results is a crucial step and has to happen in a timely manner. Scholarly standards for disclosure of information for scientific transparency and the exchange of material among peers may collide with the need of providers to control the use of genetic resources. In turn, too strict control measures could put research at stake.
3. *Different fields of research* with genetic resources imply *different degrees of probability* that the research results flow (intentionally or unintentionally) into the commercial value chain. It is, however, essential to realize that some fields of research show very low probability, for example the elaboration of biodiversity inventories or ecological studies. In such cases the providing country could require less control over the uses and instead request periodic reports on research progress to monitor the user's compliance with the MATs.

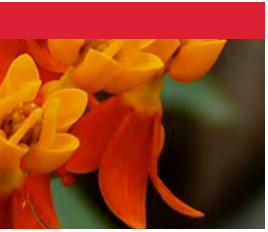
The Agreement takes account of various research activities by proposing options for the following conditions:

1. Different situations (e.g. access to genetic resources vs. access to related traditional knowledge; access to specified taxa vs. the need to identify the samples after collection);
2. Different models of research cooperation; and diverse needs to monitor the implementation of the agreement;
3. Specific aspects of academic research, such as the need to publish results and the exchange of data, storage and accessibility of samples etc.

How to use the Agreement

The Agreement on Access to Genetic Resources and Sharing of Benefits (ABS) for Non-commercial Academic Research containing Model Clauses is based on the conviction that mutually agreed terms are a contract that needs to be negotiated and concluded between the parties, i.e. the providers and the users of genetic resources. The proposed Agreement provides a toolbox for composing a contract on mutually agreed terms tailored to accommodate the needs of the stakeholders. We recommend that both parties possess the *full text* of the Agreement in order to foster discussions on options and provide solutions to disagreements that might arise.

The Agreement consists of different types of clauses: 1) General clauses, like the preamble, or the definition of the purpose (article 4); 2) Clauses on substantive issues (articles 5 to 17); 3) Clauses on procedural issues. Most of the clauses on substantive issues offer a basic clause



(marked green in the sample agreement) and include options that can be added to the basic clause or used as a stand-alone solution. Other clauses offer only options to choose from as needed.

In drafting the Agreement, we intended to cover most issues that might arise in the relationship between providers and non-commercial public researchers. The basic clauses by themselves may form a full contract for simple non-commercial research situations. Not all cases will need all clauses; each agreement must be modelled according to the specific needs of the parties engaged in the negotiations. The Agreement is therefore made freely available as Word Document under a Creative Commons Licence that allows for changes in the document[4].

Outlook

It is with great pleasure that the Swiss Academy of Sciences makes available to interested stakeholders this example of an ABS agreement with contractual clauses. It is a tool to actively support the implementation of ABS regulations and focuses on academic non-commercial research. The proposed Agreement still needs to prove its applicability to real ABS situations. Accordingly, it should be considered as a draft that needs to be adapted to the final version of the CBD ABS protocol and which will need improvement over time. Suggestions and feedback by both providers and users are most welcome.

At the Swiss Academy of Sciences we firmly believe that non-commercial public good research is essential to achieve the first two goals of the CBD, the conservation and sustainable use of biological diversity. Moreover it generates (non-monetary) benefits that contribute to education, advancement of science and technology transfer. The Swiss Academy of Sciences advocates research in a mutually trustful atmosphere and encourages scientists to conduct their research in accordance with existing international codes and standards.

[4] http://creativecommons.org/licences/by-nc/3.0

The Agreement

Comments

The Convention on Biological Diversity (CBD) in its Article 1 sets out the following objectives: 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, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Under Article 15 CBD access to genetic resources is to be facilitated for environmentally sound use. Access is based on the prior informed consent of the Party providing the resource. Providers and Users are to negotiate the mutually agreed terms defining the sharing of benefits.

Article 16 CBD recognizes that both access to and transfer of technology are essential elements for achieving the objectives of the Convention. It requires the Parties to provide and facilitate access to and transfer of technologies relevant for conservation and sustainable use of biological diversity as well as to use the technology in an environment friendly way.

The mentioned provisions, in our view, express the very essential principles of access and benefit sharing embraced by the CBD. Parties are however free and encouraged to regulate their relation in accordance with other principles and rules stipulated in the CBD

The Agreement

Preamble

The purpose of this Agreement is to set out the conditions for the use of genetic resources, any associated Traditional Knowledge (TK) and the sharing of resulting benefits between the parties concerned in accordance with the Convention on Biological Diversity (the "CBD"), particularly in respect with the principles established under its Articles 1, 8(j), 15, and the Bonn Guidelines.

The Agreement contains Mutually Agreed Terms (MAT) according to Article 15.7 CBD.

The Agreement is designed to promote non-commercial academic research, such as research in taxonomy, ecology, biochemistry and genetics, and to foster conservation and the environmentally sound and sustainable use of genetic resources.

Its objective is to provide a sound basis for cooperation, transparency, communication and trust between the parties to the Agreement, taking account of the concerns of both providers and users of genetic resources.

such as Article 7 (Identification and Monitoring), Article 12 (Research and Training), Article 17 (Exchange of Information), Article 18 (Technical and Scientific Cooperation) or Article 19 (Handling of Biotechnology and Distribution of its Benefits).

The Agreement has been drafted solely for the relevant institutions as the parties to the Agreement. The "Provider" is the national authority of the involved provider country in accordance with its national law. It is responsible for fulfilling the obligations under Article 10.
The Agreement could also be applied in negotiations with delegated entities such as federal governments. However, it is not apt to cover cases where, according to the national law of the provider, (additional, ancillary) agreements have to be concluded with private parties, such as a land owner.
The User can only be a research institution; an individual researcher may only act on behalf of it.
If the Provider is a holder of traditional knowledge (TK)[5], a separate Agreement between researchers (as the User) and the holder of traditional knowledge (individual, community, legitimate representative of the community) needs to be concluded.
The present Agreement takes into account the concerns of the TK holders to the extent possible in nego-

[5] The drafting of specific agreements and codes of conduct is planned.

1. Parties to the Agreement

The Agreement is entered into on *[insert the date]* by and between

[insert the name and details of the following:

- *State and Institution (competent ABS national authority)*
- *The contact person responsible for the implementation of the Agreement on behalf of the institution]*

together hereinafter referred to as the *"Provider"*.

and

[insert the name and details of

- *The responsible research institution*
- *The representative of the research institution responsible for the implementation of the Agreement]*

tiations between research institutes and governmental agencies.
The data of both the User and Provider serve as reference and contact point in the communication between the parties. From the perspective of the Provider, the relevant research institution shall be held as the responsible body during the term of the Agreement. On the side of the User, a relevant national agency or authority will be responsible for maintaining the Agreement.

Represented by the authorized head or member of the research team; authorized researcher

[insert the name and details of researcher].

together hereinafter referred to as the *"User"*.

Article 15 CBD states that access to the genetic resource shall be subject to prior informed consent of the Party providing access.
Article 2 provides for two different solutions.

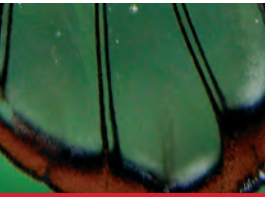
2. Prior Informed Consent

Option 2.1. applies to cases where access to genetic resources is subject to a formal Prior Informed Consent (PIC) by the Provider.

Option 2.1
The Agreement is based on the Prior Informed Consent (PIC) issued beforehand by the Provider to the User for the access to the genetic resources concerned. The PIC document is attached to this Agreement and is considered an integral part of the Agreement.

Option 2.2 applies to cases where the Provider determined that PIC can be included in the MAT.
The research project of the User should include information on resources to be access, planned utilization and prospective or intended benefits to be shared.

Option 2.2
The Provider hereby confirms that he/she has been informed on the research project by the User and consents to provide access to genetic resources in situ and/or ex situ necessary to carry out the research in accordance with the research project attached to this Agreement.



If access is requested for a research project that includes Traditional Knowledge (TK) associated to the genetic resources, the sharing of benefits in relation to TK is to be agreed upon in a separate, ancillary agreement with the holders of the TK and according to the national law of the providing country if such legislation exists.

This Article contains standard definitions of the terms used in the Agreement. The Parties are however free to replace or customize the terms in accordance with their needs and in particular in accordance with the planned research activities. They can also opt between narrow or broader definitions by excluding or including different options.

3. The Purpose of the Agreement

The purpose of this Agreement is to specify the terms for

1. Accessing genetic resources,
2. Their utilization in accordance with the PIC,
3. Their possible transfer to third parties, and
4. For sharing the benefits resulting from the utilization of genetic resources.

4. Terminology

In this Agreement the terms defined in Article 2 CBD shall have the same meaning, unless otherwise defined in this article.

4.1 Genetic Resources

Genetic Resources means genetic material of actual or potential value.

Option 4.1.1

Genetic Material means any material of plant, animal, microbial or other origin containing functional units of heredity.

Option 4.1.2

The term "Genetic Material" includes living and dead resources.

The definition of commercialization was drafted to reflect acts and activities that simultaneously serve as indicators of commercialization.
In our view it is more practical to focus on activities for identifying the transfer of resources to commercial sectors than to rely on the intent of the user.

Option 4.1.3
The term "Genetic Material" includes derivatives as defined below.

4.2. Derivatives
Option 4.2.1
Derivatives means products based on Genetic Resources and generated through techniques such as expression, replication, characterization or digitalization
Option 4.2.2
Derivatives mean substances created from Genetic Resources that are substantially modified to have new properties.

4.3 Commercialization
Commercialization means the use of the Genetic Resource for the generation of any kind of actual or potential economic profit.
It means in particular any sale, lease, licensing of the Genetic Resource, and/or Products generated from its use through actions such as filing a patent application, obtaining intellectual property rights or other tangible or intangible rights.
It includes any transfer of the Genetic Resource to a for profit organization.

The Mutually Agreed Terms can be contained in one document, or in a main document and ancillary agreements with specific stakeholder groups.

4.4 Mutually Agreed Terms (MAT)

The Mutually Agreed Terms are an agreement negotiated between the Provider and the User of the Genetic Resources and/or holders of Traditional Knowledge associated to the Genetic Resources according to the national law of the country providing the resources. The MAT regulate conditions for the access to the Genetic Resources and to their associated Traditional Knowledge and the fair and equitable sharing of benefits that result from their use. They are adapted to the specific access situation.

4.5 Traditional Knowledge

Option 4.5.1

Traditional Knowledge is the accumulated knowledge that is vital for the conservation and sustainable use of biological resources and/or which is of socioeconomic value, and which has been developed over the years in indigenous/local communities.

Option 4.5.2

Traditional Knowledge means "information or individual or collective practices of an indigenous or local community associated with the genetic heritage having real or potential value".

PIC may consist in a research permit.

Regarding the relation with Third Parties see Art. 8.

4.6 Prior Informed Consent (PIC)
Prior Informed Consent means the unilateral declaration of the Provider that he/she has been informed about the planned research and that he/she is willing to provide the required access to the Genetic Resource.

4.7 Product
Product means the result produced, obtained, extracted or derived from the Genetic Resource through research or research & development (R&D) activities, including data and information generated through analyses of the Genetic Resources.

4.8 Progeny
Progeny means unmodified offspring from the Genetic Resource

4.9 Third Party
Third Party means any person or institution other than the Provider, the User and any collaborator under their control or supervision. A Third Party is not bound to the terms and conditions of this Agreement unless otherwise agreed with the User.

4.10 Unauthorized Person
Unauthorized Person means any person that came into possession of the Genetic Resources without the authorization of the User.

Here, the Parties may list names of species or strains of the material to be accessed or any other attributes that may help to define the genetic resources.

The list may include identified and unidentified species. If there are unidentified species/strains in the submitted list, option 5.2 applies.

5. Genetic Resources to be accessed

The User shall have access to the following Genetic Resource(s):
[Insert list of the Genetic Resources to be accessed].

Option 5.1

Since the species/strains present at the collection site are not know to the User at the time of concluding this Agreement, a general account of species/strains most likely to be collected is given in Annex XX.
A list of the collected samples according to the researcher's field-notes is presented to the Provider within XX months after having gathered the samples.

Option 5.2

If the collected samples cannot be identified in the list of collected samples within the above prescribed period, their identification has to be shared with the User as soon as it is available.

6. Utilization

The Material may be utilized for non-commercial purposes including for academic research and collections, and for training, teaching and education.
The User must comply with the User's and Provider's national regulations and with relevant international law. The utilization of the Material or derived information for any type of Commercialization is prohibited.

It is important that the User binds Third Parties to the terms of this Agreement in order to avoid uncontrolled flow of genetic resources.
If institutions or persons are appointed for specified analytical and technical auxiliary work, the conditions of this Agreement must be included in the contract regulating the cooperation.

Option 6.1
The Genetic Material shall be used exclusively for the following purposes: *[insert allowed activities and/or uses]*.

7. Change in Utilization from Non-commercial to Commercial

The Commercialization of the Genetic Material and related information is prohibited.
Any change in utilization from non-commercial to commercial shall require a new Prior Informed Consent in writing issued by the Provider. In this case, the terms of such Commercialization shall be subject to a separate agreement (MAT) between the involved parties.

8. Transfer of Genetic Resources (and associated TK) to Third Parties

Transfer of the Genetic Resources for the purposes of academic research and collections, and for training, teaching and education, or any other non-commercial activities is allowed under the condition that the User ensures that the subsequent person or institution (Third Party) is informed about the provisions under this Agreement and undertakes to pass on the Genetic Resources under the same obligations to any further recipient.

Options 8.1–8.4 establish different levels of control. Parties should include those that reflect the appropriate level of control in accordance with their needs.

Option 8.4 is an extremely limiting measure. It is meant primarily in cases where the Material has associated TK. Given the current problem regarding the protection of TK, we assume that the Provider may have an interest to keep knowledge secret and therefore may want strict control on any further transfer of the Material and TK.

Option 8.1

The User delivers to the Provider annually a *list of the Third Parties* to whom the Genetic Resource was transferred to.

Option 8.2

The User shall maintain retrievable records of any transfer of the Genetic Resources to Third Parties under the conditions corresponding to this Agreement.

Option 8.3

The User shall require the Third Party to sign an agreement containing identical obligations on Use and Transfer of the Genetic Resources (and associated TK) as set out in this Agreement.

Option 8.4

The Genetic Resources [and their associated TK] may be transferred to Third Parties only after having obtained the *written consent of the Provider* and in accordance with Mutually Agreed Terms between the Provider and the Third Party. Excempted is a temporary transfer of the Genetic Resource to taxonomic specialists for scientific identification.

Researchers may face the problem that the conditions or restrictions with respect to handling the Material are not clearly known or indicated (e.g. on the sample). Therefore even if they want to comply with restrictions they fail.
This provision aims at eliminating any liability of the User in cases where the special conditions/restrictions of use are not communicated properly. This includes not marking the sample itself or not providing reference to information e.g. in the internet.

Option 8.5
The User is entitled to deposit the Genetic Resources in collections that are accessible without restrictions for research purposes such as herbaria, museums and culture collections.

Option 8.6
If the Genetic Resources are transferred to an *ex situ collection of living Genetic Resources for educational purposes* (such as zoos, botanic gardens), this institution is – in addition to the obligations of this Agreement – obliged to take any appropriate precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.

Option 8.7
If the use or storage of the Genetic Resource is subject to *special conditions or restrictions*, such conditions/restrictions have to be *clearly indicated on the label* or otherwise linked to the sample, when transferring the Genetic Resource to Third Parties, including the indication of where the information concerning the special conditions/restrictions can be found.

The list under Article 9 enumerates a minimal standard of benefits that in our view should always be shared if applicable.
Parties to the Agreement are encouraged to extend the list and add other benefits as well. For this purpose, we attach as an annex to this Agreement a list of non-monetary benefits as specified in the Bonn Guidelines. These benefits may be included in Article 9 of the Agreement. The Parties are free to go beyond the benefits encountered in the list and add others as well.

9. Benefit Sharing

The benefits arising from the access and use of the Genetic Resources shall be shared fairly and equitably by the User, in accordance with the principles established in the CBD. Basic benefits to be shared include:

1. The offer to the Provider to include local researchers in the research activities, if such interest exists.
2. In case of publications or oral presentation of the research results, full acknowledgement is to be given to the source of the Genetic Resource;
3. If TK associated to the Genetic Resources is involved, the research results published or presented orally will include full acknowledgement of the source of the Genetic Resources and the TK, if so required by the providers.
4. The Provider will receive a copy of all publications;
5. Research results will be communicated to involved stakeholders (e.g. communities, indigenous people) in an adequate manner and according to reasonable requirements of the Provider;
6. If applicable, share duplicate specimens wih the repository in the Provider country in accordance with good scientific practice.

In addition, the User agrees to share the following benefits:

[Choose from the list of benefits appended to this Agreement; insert a detailed lists of benefits here or in an annex]

This is a technical contact point. It might be a different institution than defined in Article 1. The technical contact point will act on behalf of and as mandated by the institution in Article 1.
Different options regarding the Providers' right to obtain information on the state of research are defined in Article 12 (Reporting).

By performing part of the research in the Provider's country, researchers in the host country have the opportunity to be fully integrated in the research. However, we prefer to treat the provision as a "right of the Provider" rather than as a "benefit sharing" arrangement due to the fact that such right is highly dependent on the technical capacity of the Provider.

10. Rights and Obligations of the Provider

The Provider defined in Article 1 is the responsible contact point for the User for the entire duration of the present Agreement.
The Provider has the obligation to facilitate access to the Genetic Resources. This includes the facilitation of the acquisition of other permits required in accordance with the relevant national or regional regulations in the Provider country as well as export permits.

Option 10.1

The Provider designates the following institution *[insert the relevant institution]* as the responsible contact point for the User for the entire duration of the present Agreement.
Contact details of the technical contact point are provided in Annex [XX] to this Agreement.
The Provider has the right to receive information on the state of the research from the User as agreed upon (see Article 12 on Reporting).

Option 10.2

The Provider requests that the following analytical parts as set out in the project are performed in the providing country: *[insert a list of analyses to be performed in the Provider's country].*
The Provider confirms that all necessary conditions (equipment, staff and consumables) for conducting the analyses are available;

If the Provider (in contrast to the User) intends to obtain a patent on the results, it is necessary to refrain from disclosing information (e.g. publishing research results in journals). It would impede the protection of the results by intellectual property rights due to the lack of novelty.

The reference to international law regulating TK includes for example: 1948 Universal Declaration of Human Rights, International Labour Organization ILO Convention 169, The Rio Declaration and Agenda 21, the Convention on Biological Diversity, etc.
It is a right of the Provider to instruct the User how to exploit the material if it is associated with TK. Instructions may be included in this Agreement as its integral

The User confirms that he/she has the necessary resources (funding, time) for such an arrangement.

11. Rights and Obligations of the User

The User is entitled to administrative support and guidance to facilitate the acquisition of the necessary permits required by the Providing country.
The User shall not use the Genetic Resource nor derivatives generated in the research for any commercial purposes, nor shall the User commercialize any Product derived from the Genetic Resource, unless with the written consent of the Provider.
The User is obliged to take all reasonable precautions to prevent the Genetic Resource coming into the possession of any Unauthorized Person.
The User is obliged to inform the Provider about any unforeseen research results that are of potential commercial interest, prior to any disclosure of this information to the public.

Option 11.1

If the research implies TK associated to the Genetic Resource, the User is obliged to respect any relevant international law and the national and regional regulations in the Provider's country, and has to proceed according to the instructions of the Provider. In any case the User is obliged to respect the customary law of the holders of the TK and has to apply ethical standards.

part either through an additional article stipulating the terms and conditions of use or annexed to the Agreement.
For ethical standards see: International Society of Ethnobiology (2006). ISE Code of Ethics (with 2008 additions). Online: http://ise.arts.ubc.ca/global_coalition/ethics.php;
Elements of a Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities. Report of the Sixth Meeting of the Ad Hoc Open-ended inter-sessional Working Group on Article 8 (j) and related provisions of the Convention on Biological Diversity. UNEP/CBD/COP/10/2; 21 November 2009.

Such an ancillary contract will depend on the requirements of the relevant national law in the Provider country regarding the obligation to conclude contracts with sub-national entities (federal governmental bodies, TK holders, indigenous or local communities, private land owners)

Option 11.2
Corresponding to national law the User will conclude an ancillary contract with the holders of TK and/or the private land owners of the genetic resources.
The ancillary contract forms an integral part of this Agreement.

This provision has the purpose to establish a long-term access to data generated by the User, which goes beyond the information that can be found in publications. It is up to the Provider to spell out the information of the vital interest for him/her. This provision should

12. Data Sharing

The User agrees that the Provider has the right to access the following data resulting from the research:

- *[insert type of data]*

contain the precise description of the information/data required and the manner of the data transfer, such as time period, communication means, etc.
Parties to the Agreement should account for potential barriers that transfer of data may bring along and regulate it as detailed as possible. For example, if there is a language barrier between the Provider and the User, the Parties should define the official language to operate with, or to define the particular standard to be used, if there would be more options, and so on.

The Reporting obligation may depend on the particular nature of the research and the interest of the Provider. He/she may request different amounts of information in a varying periodicity.

Therefore, we offer different options that may meet the needs of the parties, depending of the complexity of data included and the time schedule.
However, Parties may tailor any of these options to make it more suitable to their convenience or they can stipulate a new provision that will entirely reflect their needs. They are free to specify in a more detailed manner the reasonable content and the structure of the Report as well as the time period within which the Report should be submitted.

The User shall facilitate access to the above defined data for the Provider.
The Provider agrees that for using the data in his own research, he needs the consent of the User.

Option 12.1
Given the cooperative approach to the research, the Provider and the User agree in a separate agreement on the use of the data, annexed to this Agreement *[Annex XX]* and forming its integral part.

13. Reporting
The User will deliver a written report in accordance with the Provider´s instructions as to its structure, information included, etc, upon his/her request.

Option 13.1
The User shall submit an annual written report on the research accomplished.

Option 13.2
Upon request of the Provider, the User submits a written report on the research accomplished.

Article 15 on Publication treats in its option 15.3 the case where a Provider himself wants to apply for an intellectual property right.
Article 7 deals with the Change of Utilization from non-commercial to commercial.

Option 13.3
Upon request of the Provider, the User submits an annual written report on the research accomplished. The report shall include a list of Third Persons to whom the Genetic Material has been transferred.

Option 13.4
Since the *Provider* is a private citizen, upon his/her request, the report is translated into the local language by the User and adapted to a non-scientific audience.

14. Intellectual Property Rights

The User shall not claim any intellectual property rights over the Genetic Resource in the form received.
If the *User* wants to obtain intellectual property rights on research results such act shall be treated as change in utilization and thus shall be regulated under Article 7 of the present Agreement.
If the *Provider* wishes to obtain IPR on research results, such act shall be treated as change in utilization and shall be regulated under Article 7 of the present Agreement. In particular the ownership of the IPR and the distribution of the value derived from the IPR are to be negotiated.

15. Publications

The User has the right to publish the results of the research related to the Genetic Resource according to Article 6 of the present Agreement, and according to good scientific practice. The origin of the Genetic Resource has to be acknowledged.

Option 15.1

The User has the right to publish the results of the research related to the Genetic Resource according to good scientific practice. The origin of the Genetic Resource has to be acknowledged, as well as the sources of TK associated with the Genetic Resource.

Option 15.2

The holder of TK associated to the Genetic Material has the right to request confidentiality of specific information *[describe the information subject to confidentiality]* such as for spiritual reasons; to prevent the depletion of the genetic resources; and/or to prevent unsafe/hazardous applications of the TK in the health sector.

This option takes account of the Provider's concerns that published results may reduce his/her opportunity to derive commercial value from his/her genetic resources. On the other side, it takes account of the User's interest that the Provider's decision to commercialize the material does not significantly impede or delay research.

Option 15.3

If the User, in the course of the research, discovers any unforeseen commercial potential of the Genetic Material, he/she is obliged to share such information with the Provider prior to any publication of such information.
If the Provider intends to pursue a potential commercialization, this is subject to negotiations between the Provider and the User according to Article 7. The Provider agrees not to hold up the User's research work unless concerns are concrete and justified in terms of well-defined proprietary interest.

Option 15.4

If the User is prevented from publishing the results of the research due to the Provider's wish to obtain a patent over the research results, the Provider shall file the patent application within *[XX]* months. After the agreed period, if the Provider has failed to file a patent application, the User has the right to proceed with the publication of the research.

16. Handling of the Genetic Material after Termination of the Agreement

Upon completion of the project, Genetic Material will be stored or disposed of according to the utilization agreed under Article 6.

The purpose of the provision is to preserve certain rights and obligations that are independent of the duration or termination of the present Agreement. This, in general, means that even if the present Agreement is not in force the User is obliged to keep secret all the information defined as a trade secret by the Provider and not disseminate it to any Third Party after the present Agreement ceases to exist.

Option 16.1

If the Genetic Material has been placed in storage, or in public collections, upon expiration of the Agreement or its termination, the Genetic Material may be available for use only under the same conditions as contained in this Agreement.

17. Duration and Termination of the Agreement

The present Agreement shall end on *[insert the date]* and may be renewed upon the mutual agreement of the Parties.

Option 17.1

The present Agreement shall be deemed to be in force until the Genetic Material is returned to the satisfaction of the Provider upon completion of the Project. Regarding the Genetic Material related information, the present Agreement shall be subject to any associated rights, such as copyright or trade secrets.

Option 17.2

When a Party to the present Agreement wants to terminate the Agreement prior to the completion of the Project, the Party shall give written notice [XX] months in advance.

The present Agreement may be terminated at any time by mutual agreement of the Parties.
The present Agreement may be terminated immediately, in case of its breach.

The Parties to the Agreement are free to establish competence of any court they agreed upon for potential disputes arising from the Agreement. They can also opt for arbitrage or to include any independent third party. However, we believe that it is important to encourage them to try to negotiate any disputes before reverting to any court.

18. Settlement of Disputes

The Parties agree to make attempts in good faith to negotiate the resolution of any disputes that may arise under this Agreement. If the Parties are not able to resolve a dispute within a period of [XX] months, such dispute shall be finally settled by an arbiter to be mutually agreed between the Parties.

Option 18.1

If the Parties are not able to resolve any dispute within a period of [XX] months, such dispute shall be resolved before the [XXXX] Court law as the only competent body for resolving disputes arising under this Agreement and in accordance with [XXX].
[Insert applicable Law; Jurisdiction]

Parties may also include provisions on other matters of their importance and regulate issues such as Warranties, Force Majeure, Disclaimer.

19. Other Provisions

Annex 1 Indicative list of non-monetary benefits (adapted from the CBD Bonn Guidelines)

- Sharing of research and development results;
- Collaboration, cooperation and contribution in scientific research and development programmes, particularly biotechnological research activities, where possible in the provider country;
- Performing certain analytical parts of the research in the providing country to the extent that adequate equipment is available and the User has the necessary resources (funding, time) for such arrangement.
- Participation in product development;
- Collaboration, cooperation and contribution in education and training;
- Admittance to ex situ facilities of genetic resources and to databases;
- Transfer to the provider of the genetic resources of knowledge and technology under fair and most favorable terms, including on concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity;
- Strengthening capacities for technology transfer to user developing country Parties and to Parties that are countries with economies in transition and technology development in the country of origin that provides genetic resources. Also to facilitate abilities of indigenous and local communities to conserve and sustainably use their genetic resources;
- Institutional capacity-building;
- Human and material resources to strengthen the capacities for the administration and enforcement of access regulations;
- Training related to genetic resources with the full participation of providing Parties,and where possible, in such Parties;
- Access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies;
- Contributions to the local economy;
- Research directed towards priority needs, such as health and food security, taking into account domestic uses of genetic resources in provider countries;
- Institutional and professional relationships that can arise from an access and benefit-sharing agreement and subsequent collaborative activities;
- Food and livelihood security benefits;
- Social recognition;
- Joint ownership of relevant intellectual property rights.

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Confederaziun svizra

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Federal Office for the Environment FOEN

The purpose of this ABS agreement for non-commercial research is to create transparent and legally secure relations in the negotiation of Mutually Agreed Terms under the CBD. The suggested terms and clauses are intended to meet the needs of both, the providers of genetic resources and the researchers seeking access and can be adapted to their respective needs.
The agreement proposes generally understandable language to ensure fair and equitable sharing of benefits.

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