Deutsche
Forschungsgemeinschaft
German Research Foundation

Guidelines

for Funding Proposals Concerning Research Projects within the Scope of the Convention on Biological Diversity (CBD)

DFG-Form 1.021e - 5/08

Content **Page**

I. Introduction

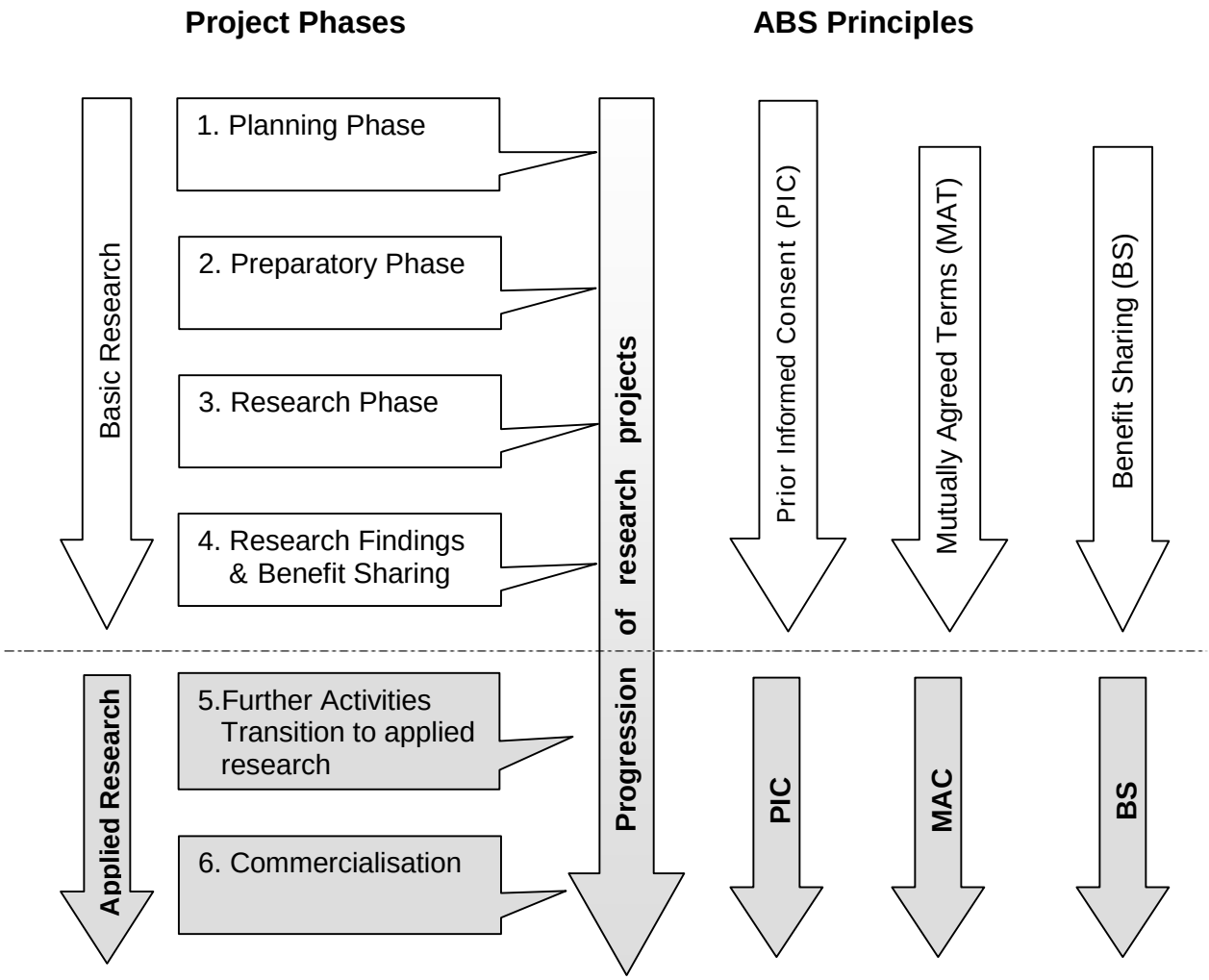
The following guidelines are provided to facilitate applications for DFG funding in the area of CBD-relevant research projects conducted in foreign countries that are parties to the CBD. All research projects involving biological material are potentially CBD-relevant. These guidelines provide information about applicable provisions under the Convention on Biological Diversity and are meant to facilitate compliance during the proposal and implementation stages of the project. In particular, these guidelines explain key provisions under the CBD concerning access to genetic resources. They address common problems that may arise during the research process and attempt to suggest solutions.

Furthermore, these guidelines aim to enable scientists to comply with the principles of the CBD when designing research projects, in order to avoid problems later on during implementation, as well as to promote transparency and trust.

These guidelines should be taken as supplementary to the general requirements for DFG funding proposals (see also VII.).

Please check whether your research project involves one of the plant species specified in the International Treaty on Plant Genetic Resources for Food and Agriculture, also known as FAO Treaty. For detailed explanations hereto, please visit the links in Annex II. The requirements listed in the following guidelines do not apply in those cases.

II. The Access and Benefit-Sharing (ABS) System under the CBD in Relation to the Phases of ABS-Relevant Research Projects



III. Checklist for the ABS System under the CBD

Project Phases	Steps	Recommendations	Notes
1. Planning Phase	1. Does the research activity fall within the scope of the ABS system according to the CBD? 2. Obtain overview of host country's existing access regulations 3. Timetable, steps, and possibly budget for preparatory phase 4. Benefit-sharing concept 5. Draft research plan	• Find cooperation partner in host country • Develop cooperation concept → required under national ABS provisions • Determine research area after analysing laws applicable to the research area; note protection status as additional permits may be required	If possible, the following key criteria should be considered when selecting a host country: - existing contacts to research institutions or existing scientific exchange - sufficient, possibly tested, scientific infrastructure - clear ABS regulations, or - special ABS rules for pure research activities
2. Preparatory Phase	1. Contact National Focal Point[1] 2. Contact host-country authority in charge of ABS 3. Develop concept for PIC[2] 4. In a timely manner, obtain PIC from: - the Competent National Authority - other rights holders as per national access procedures (e.g. indigenous communities, if traditional knowledge is involved) 5. Identify parties of access agreement and thus of MAT - negotiate access agreement[3] 6. Initiate access procedure; ensure completeness of documentation	• It is recommended to discuss the access procedure with the competent authority, to clarify any open questions, and to agree on a timetable (including deadlines) • Clarify with the competent authority which other national institutions or other rights holders must be notified, and whether additional permits must be obtained • Concept for PIC may need to include events for briefing and possibly educating stakeholders[4] • Ensure that the access agreement allows for deviations from the originally agreed research objective / plan that may emerge as research activities progress	• Applicant is responsible for the costs of the access procedure • Access procedure should be initiated as soon as possible since it may be time-consuming • Note that the (typically time-consuming) PIC process should be settled before the access application is submitted to the appropriate agency • Document PIC procedure

[1] See VI. 1.
[2] For details, see VI. 2.
[3] For key elements, see VI. 3.
[4] Applicant must enable stakeholders in the PIC process to make an educated decision based on detailed information about the research project.

Project Phases	Steps	Recommendations	Notes
3. Research Phase	1. Begin research activities only *after* negotiating PIC and MAT, and carry them out as agreed 2. Begin benefit sharing according to the previously developed concept (see above): e.g. scientific collaboration[5]	• Comply with national and local regulations • Create a positive research environment, especially by considering and respecting local traditions and customs, particularly those of indigenous communities • Promote conservation, protection and sustainable use of biological diversity	• If cooperating with indigenous communities, their customs, traditions and legal concepts must be considered and respected • Conduct research together with cooperation partner • Most national access regulations require that domestic researchers and/or research institutions be involved in the research activities
4. Research Findings and Benefit Sharing	1. Make research findings available to the host country and other stakeholders in the host country 2. Share benefits with host country's academic research community[6]	• For basic research, publication is the method of choice	• Respond to inquiries from local community • Prepare materials about research findings and present them e.g. at symposiums
5. Further Activities: Transition to applied research planned?	1. For further research activities or other activities involving the genetic material, PIC and MAT must be negotiated again 2. Do not pass on genetic material without contractual agreement	• Do not carry out further activities without PIC and MAT • Conduct further activities only in cooperation with researchers or research institutions of the host country	• As a rule, the DFG does not fund applied research; look for other backers
6. Commercialisation	1. Find business partners 2. All economic and/or academic benefits from the research must be shared with the host country and other stakeholders specified in the access agreement	• Promote participation in product development • Conduct product development in the host country, to the extent possible • Clarify intellectual property issues	• Professional legal counsel is mandatory for contract negotiation

[5] See VI. 4.
[6] See VI. 4.b.

IV. Background

1. The Convention on Biological Diversity (CBD)

In 1992, at the United Nations Conference on Environment and Development (Earth Summit) in Rio de Janeiro, the Convention on Biological Diversity (CBD) was adopted. It is the most important international agreement on the protection and sustainable use of biological diversity. In Germany the CBD became effective in 1993. Meanwhile more than 180 countries have signed and ratified the CBD.
The main goals of the CBD[7] are the conservation and sustainable use of biological diversity and the fair sharing of results and benefits derived from its use. At numerous conferences, the signatory countries have concretised provisions under the Convention and passed programmes to implement the CBD.

2. The ABS System under the CBD

The CBD has created the Access and Benefit-Sharing (ABS) system, a new system for collecting, and pursuing other activities with, genetic material. This system combines two key elements: (1) access to genetic (biological) resources, and (2) in return, an agreement that entitles the host country to share the benefits thus derived.
Emphasising the sovereign rights of states to their natural resources,[8] the CBD stipulates that the authority to regulate access to genetic resources lies with the governments of the individual states. It is therefore within the competence of the contracting states to determine the specifics of the access procedure. But since the important aspects of the access procedure are binding for all signatories, they must be reflected in national legislation.[9]

3. Applicability of the ABS System

Crucial for determining the applicability of the ABS system under the CBD are the terms “genetic resources” and “access”, as well as the type of access.

a. Genetic resources

The CBD defines genetic resources as biological material of actual or potential value. A genetic resource may be any material of plant, animal, microbial, or other origin containing functional units of heredity (Art. 2 CBD). The value of the genetic resource need not be of a commercial nature but may be purely scientific. Because even genetic resources with only potential value fall within the scope of the CBD, it pertains to all genetic resources. Furthermore, the biological information need not be genetic in nature; for example, sufficiently specific biochemical

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[7] Art. 1 CBD says: “The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, 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.”

[8] Art. 3 CBD says: “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

[9] To facilitate the implementation of the CBD by signatory countries, the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilization were adopted at the sixth meeting of the Conference of the Parties (COP 6) in April 2002. The Bonn Guidelines provide a framework for developing and drafting legislative, administrative or political measures regarding Access and Benefit-Sharing, as well as contracts and other agreements, in line with agreed standards.

information contained in the resource is also covered by the ABS system. In addition, the ABS system must be applied both to genetic material collected in situ and used there for research purposes, and to genetic material acquired from ex-situ sources or cooperation partners.

b. Access to genetic resources

The term “access” is not defined under the CBD. Its definition and scope thus depends on the regulations in the host country that makes the resources available.
Consequently, “access” may refer to a range of activities. This includes locating genetic material in situ or ex situ, as well as the subsequent activities of sampling, collecting, transferring, and exploiting the material through breeding or biotechnology. These various levels of activity may be governed by different areas of legislation. For example, visiting an in-situ location and sampling genetic material may be subject to rules of conduct for certain geographic or species-specific locations, or regarding certain (protected) species. In addition to public law, this may also involve private property rights, which are not governed by the CBD or its implementation statutes but by the provisions of national civil law. For the sake of completeness, it should be mentioned that sampling, collecting, transporting, breeding and biotechnology activities may be governed and possibly restricted by laws other than the CBD and its implementation statutes.
In summary: The ABS system applies to both commercial and pure-basic research activities involving biological material or related traditional knowledge. In the case of traditional knowledge, the indigenous or local community must be included in the ABS process. This is subject to the applicable national legislation of the contracting states.

c. Identifying type of access — type of use of genetic resources

To determine the applicability of ABS provisions it is necessary to identify the type of use intended. Therefore the question whether an ABS case is present should be settled in advance during the planning phase[10] of any research project. Four different constellations are possible:

Research Project	**ABS Situation**
1. Research does not involve the use of genetic resources and/or research does not pertain to genetic material. This category includes most ecosystem research projects, which do not directly aim at the organisms themselves.	- This does not represent an ABS constellation. - ABS provisions do not apply. - Nonetheless, local research permits are usually required.
2. Research involves collection and transfer of biological material (samples) for biological inventory purposes (taxonomy).	- This represents a simple ABS constellation. - A standardised Material Transfer Agreement (MTA) is usually sufficient.
3. Research involves export of biological material (samples) for laboratory analysis and further research activities outside the country of origin. Further use, particularly for commercial purposes, is not intended.	- This represents an ABS constellation. - ABS provisions apply. - A simple ABS agreement is usually sufficient.
4. Research project has several complex phases. Most significantly, following pure basic research, further research activities for commercial purposes are planned. The use of traditional knowledge is also intended.	- This represents a complex ABS constellation. - ABS provisions apply. - A complex ABS agreement is necessary.

[10] See chart on page 5, as well as page 6 ff.

4. Significance for Basic Research

Likewise in biological basic research, the ABS system of the CBD needs to be applied as early as during the preparation phase of the research project. Thought should be given in particular to ways in which the host country making the genetic resource available can partake in the benefits resulting from the research. The basic principle of fair and equitable benefit sharing (Art. 15 (7) CBD) applies equally to basic and commercial research. Examples of non-monetary benefits of basic research are technology transfer, capacity building (education and training), the establishment of long-term academic networks, and research cooperation.

Numerous countries have already adopted national legislation to implement the key principles of the CBD regarding access to domestic genetic resources. Consequently these statutes must be considered, in addition to the general provisions under the CBD, when planning research projects.

It should be noted that, along with national regulations concerning access to biological material, the host country's rules for research-permit applications must also be considered. This should be discussed with the appropriate authorities of the host country and is contingent on how the permit-granting authority classifies the nature and purpose (basic research or commercial use) of the planned research activity.

Furthermore it should be ensured that any exchange of biological material with a partner research institution upholds the obligations of the originally authorised party in terms of PIC (prior informed consent)[11] and MAT (mutually agreed terms),[12] as well as any other relevant ABS provisions.[13]

5. Scope

The guidelines in this document are based on the Bonn Guidelines. Consequently they pertain to all genetic resources and related traditional knowledge, innovations and practices subject to the CBD, as well as any benefits resulting from commercial or other uses of these resources. "Other uses" includes in particular the use of genetic resources for pure research purposes.

[11] See explanations under IV. 2.

[12] See explanations under IV. 3.

[13] The exchange of biological material between botanical gardens that are members of the International Plant Exchange Network (IPEN) continues to be governed by the IPEN Code of Conduct. The provisions of such codes of conduct must be obeyed in addition to the principles of the CBD and national ABS regulations.

V. Main Principles for Basic Research under the CBD (Summary)

The following list provides an overview of the main principles of the Convention on Biological Diversity that should be considered before planning and designing a basic-research project in a foreign country.

1. The use of biological material (genetic resources) for research purposes is governed at the international level by the CBD. It stipulates that the governments of contracting states, based on their sovereign rights, are entitled to regulate access to their genetic resources. Thus any kind of access to genetic resources is subject to the regulations of the country in which the research is to take place.
Even while planning a research project, one should therefore obtain an overview of all important legal and procedural rules concerning access to the genetic resources of the country in which the research takes place or which makes the resources available. This can be done by contacting the respective country's National Focal Point for the CBD (see IV. 1.).

2. To implement the main principles of the CBD, many countries have adopted **national legislation governing access to genetic resources**. Relevant for access to genetic resources are therefore the CBD at the international level, certain supranational regulations,[14] and the respective national laws.[15]

3. **Key elements of the access procedure** for the use of genetic resources as stipulated by the CBD and the respective national statutes are:

a. **prior informed consent (PIC)** of the contracting state and other relevant authorities (consult provisions of national regulations) (see VI. 2)

b. **mutually agreed terms (MAT)** for access to genetic resources (see VI. 3)

c. an agreement promising **benefit sharing (BS)** in return for access to genetic resources (see VI. 4)

These key steps are integral to the preparation of research projects and must be reflected in agreements with cooperation partners (countries and their competent government agencies, as well as other stakeholders[16]).

4. If the relevant genetic material is closely related to the **traditional knowledge** of indigenous communities, the ABS system (intellectual property rights, IPR) is applied accordingly. This means that these communities must be consulted in accordance with national regulations.

5. Not all signatory countries have yet incorporated the CBD or the Bonn Guidelines into national law. These countries therefore do not have a dedicated legal, administrative or political framework for Access and Benefit-Sharing. In those cases, access will be based on

[14] E.g. for countries of the Andean Community the provisions of Decision 391 CAN on access to genetic resources.
[15] In Germany no such legislation has been adopted so far.
[16] In some cases, other stakeholders are specified in national regulations. For example, national research institutions must usually be involved in the research project. Furthermore, under the principles of the CBD, the governments of contracting states, and their designated agencies, have the right to a significant measure of control over the use of biological (genetic) resources.

mutual agreements which should reflect the key principles and provisions of the CBD and the Bonn Guidelines.

6. Existing codes of conduct, such as that of IPEN,[17] continue to apply in addition to the provisions of the CBD. This will also be the case when obtaining a Certificate of Compliance, which is currently under discussion and may become mandatory in the future.

[17] IPEN = International Plant Exchange Network.

VI. Main Steps for Access to Genetic Resources

1. Competencies: National Focal Point and Competent National Authority[18]

a. Significance

The contracting states have the right to regulate access to genetic resources. The agency in charge of regulating and permitting the use of genetic resources is also governed by national access regulations. Therefore any user of genetic resources should obtain an overview of the relevant national laws and procedural rules. Since both the National Focal Point and the Competent National Authority are appointed by the respective contracting state, applicants and future users must contact these agencies.

b. Competent National Authority

The Competent National Authority (usually a ministry) grants access to genetic resources in keeping with the national laws and administrative or other political provisions of the respective country. This authority is typically in charge of

- processing access applications,
- reviewing PIC and MAT provisions,
- monitoring and possibly conducting negotiations regarding PIC, MAT, and benefit sharing,
- granting permits,
- monitoring the conservation and sustainable use of the genetic resources for which access has been requested and granted,
- mechanisms that ensure effective participation of other stakeholders in the access procedure and the sharing of benefits.

c. National Focal Point

Many contracting states have established a National Focal Point. Visit the website of the CBD Secretariat at http://www.cbd.int/countries/ to see which countries have done so. The website of Germany's Federal Agency for Nature Conservation (BfN) also lists existing National Focal Points (in Europe). It should be mentioned that the currently acting agency might not be the one listed by the CHM-CBD. In any case, the agency listed should be able to provide information about the currently acting agency. The primary function of the National Focal Points is to provide information about the procedure, the Competent National Authority, and other stakeholders such as indigenous or local communities.

d. Notes

If contacting the agency listed by the CHM-CBD proves unsuccessful, it is recommended to establish contact with the competent authority via its counterpart. It may also help to contact institutions in Germany that deal with related matters (Ministry for the Environment, Ministry of Research and their divisions) as they are usually in contact with the relevant agency in the host country.

[18] Art. 15 (1) CBD says: "(1) Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation."

2. Prior Informed Consent (PIC)[19]

a. Significance

The concept of prior informed consent is based on the principle that prior to a risky activity those affected and those authorised to make decisions should be informed in detail about the potential risks in order to be able to make a fully educated decision. This concept has been borrowed by the CBD from the world of medicine to apply to the use of genetic material. It means that the contracting party (represented by the competent authority) which makes the resources available must be informed in advance and in detail about the planned research project. The manner, extent and procedure in which consent should be obtained are governed by national access regulations. National regulations may also require that consent be obtained from additional stakeholders.[20]
Applicants are advised to gain an overview of the requirements and relevant national regulations for securing PIC. The following aspects should be taken into consideration:

b. Content: What and from whom?

Typically PIC is required from:
- the government of the country making genetic resources available,
- the national cooperation partner,
- other stakeholders (e.g. indigenous communities).

Prior informed consent (PIC) of the country and its authorised agencies should be based on the following information[21] about the research project:

- **General information about head of research and organisations supporting the project:**
  - information about the head of research and his/her affiliation,
  - information about local partners and their affiliations,
  - project structure and organisation,
  - research budget,
  - confidentiality policies.

- **Information about intended biological research:**
  - comprehensive information on the source and nature of the genetic resources to which access is sought,[22]
  - begin and duration of research activity,
  - for prospection activities,[23] exact geographic data on the area in which they are to take place,

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[19] Art. 15 (1), (2) and (5) CBD: "(1) Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.
(2) Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.
(5) Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party."

[20] E.g. if traditional knowledge is involved, in which case the indigenous community must be informed about the project.

[21] The scope of the required information depends on the national access regulations.

[22] How detailed this information should be is specified neither the CBD nor by existing national regulations and therefore, to some extent, subject to negotiation with the permit-granting authority.

[23] This includes any activity related to the targeted search for biological material in the territory of the respective country.

- purpose and objectives of the research project, type of research activity, expected research findings,
- outlook regarding potential utilisation of research findings.

- **Information on the research process:**
  - milestones of the research process and any potential subsequent developments based on findings,
  - information about the research location,
  - information about plans for scientific collaboration with local researchers,
  - potential involvement of third parties.

- **Benefit sharing:**
  - definition of the way in which research benefits derived from the purely scientific use of genetic resources will be shared,
  - clear and agreed designation of the beneficiaries under the benefit-sharing arrangement,
  - transparent communication.

3. Mutually Agreed Terms (MAT)[24, 25]

a. Significance

Under the CBD, the concept of mutually agreed terms means that the access to genetic resources and the sharing of resulting benefits among the parties (the contracting country, as represented by its competent authority, and the party using the genetic resources) must be regulated by a contractual agreement. This typically includes many of the PIC items listed above, which are then incorporated into the access agreement.

b. Content: Access agreement

The access agreement between the parties should usually include the following items:[26]

- **Preamble:**
  - main principles of the CBD,

[24] Art. 15 (2), (4) and (7): "(2) Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.
(4) Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.
(7) Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms."

[25] Art. 8 (j) CBD says: "Each Contracting Party shall, as far as possible and as appropriate: […] (j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices."

[26] This list is not exhaustive.

- information on the contracting parties: the party using the genetic resources and the country making these resources available (represented by its competent authority) etc.
- main objectives of the contractual agreement (type of access to genetic resources, purpose of research etc.).

- **Access and Benefit-Sharing provisions:**
  - description of the genetic resources to which access is sought and which are subject to the agreement,
  - exact designation of permitted research activities and types of use of the genetic resources, taking into consideration other potential types of use or derivatives and products of the resources (e.g. research, breeding, commercialisation),
  - provisions on the mandatory reporting of any new intended use of genetic resources, mentioning specifically the requirement to renegotiate PIC and MAT in such cases,
  - provisions for monitoring the handling of genetic resources,
  - regulations governing the potential transfer of the genetic resources to third parties,
  - information about the research partners and other third parties involved,
  - an agreement to share benefits, specifying the mechanisms for its implementation,
  - use of terms for the purposes of the contract.

- **Legal clauses:**
  - contract duration, termination options,
  - intellectual-property provisions,
  - indemnity clauses,
  - arbitration clauses,
  - confidentiality clauses,
  - furnishing of securities.

c. Notes

If possible, boilerplate contracts (e.g. standardised Material Transfer Agreements) should be used. It is also recommended to ask the competent authority whether simplified contractual terms exist for basic research, or to specifically negotiate such terms.

4. Benefit Sharing (BS)

a. Significance

Under the CBD, the contracting country that makes its genetic resources available is entitled to a share of the benefits derived from their use. However, the CBD does not provide a clear definition of the term “benefits”. Rather, Articles 15 through 19 CBD include references to benefit sharing. These provisions differentiate between several objects and types of sharing, beneficiaries and obligors, as well as the regulatory nature of these provisions. Basically these are suggestions about involvement in research activities and about shifting research activities to the countries of origin, with the aim of ensuring and promoting technology transfer as well as long-term sharing of the benefits derived from genetic resources.
The “benefits arising out of the utilization of genetic resources”[27] can be divided into two very general categories: monetary (commercial) and non-monetary (non-commercial) benefits. In

[27] Cf. wording of Art. 1 CBD.

basic research, non-monetary benefits are especially important. They should be given particular attention when negotiating a benefit-sharing arrangement.

b. Content: Sharing of scientific benefits

Scientific benefits may include:

- access to scientific results (databases) of research activities,
- making available or sharing the infrastructure required for research activities,
- access to ex-situ collections,
- involvement of research partners in the entire research process by dividing up research tasks,
- joint publication of research findings,
- support of scientists in the countries where the genetic resources originate,
- formation of research networks,
- continuing education for local scientists,
- conducting research activities (to the extent possible) in the countries where the resources originate,
- establishing and maintaining a mechanism for sharing information about the research and its findings with academic partners,
- sharing any monetary benefits that may arise.

c. Notes

It is particularly important:

- to come to an agreement as to what benefit sharing means, what it should consist of, and how it should be implemented;
- to take into consideration the different types of benefits that may arise from differently targeted uses of genetic resources: basic research vs. applied research aiming at commercial utilisation;
- to agree on the extent and amount in which benefits should be shared,
- that both parties be aware of the possibility to begin benefit sharing as early as during the research process.

VII. Proposal, Supporting Documents

When submitting your proposal, please mention the status of the preparations in the host country, as requested in the Research Grants Guidelines and Proposal Preparation Instructions (DFG form 1.02e) under 3.6., referring to the items specified for phase 1 and 2 in the checklist on page 3 of the present document. Describe specifically which competent authorities you have contacted or intend to contact, how the access procedure works in the host country, and how you rate the prospects for success. In addition, please confirm that you have familiarised yourself with these CBD Guidelines and intend to conduct the project according to the principles described herein. For further questions, please contact the relevant scientific programme officer at the DFG Head Office.

Annex I: Use of Terms

1. Biological diversity

According to Art. 2 CBD, "biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

2. Genetic resources

"Genetic resources" means genetic material of actual or potential value.[28] Accordingly, the CBD defines "genetic material" as any material of plant, animal, microbial or other origin containing functional units of heredity (Art. 2 CBD). The biological information need not be exclusively genetic in nature; e.g. biochemical information contained in the resource is also included here.

3. Country of origin of genetic resources

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

4. Country providing genetic resources

"Country providing genetic resources", according to the CBD, means the country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country (Art. 2 CBD).

5. User of genetic resources

"User of genetic resources" means any individual or institution receiving access to genetic resources from the country of origin or the country making the genetic resources available. This term is defined under the CBD.

6. Benefit

The CBD does not define the terms "benefit" or "benefit sharing". "Benefits" means benefits that arise to a user and/or provider from the use of genetic resources.

7. Prior informed consent (PIC)

Under Art. 15 (5) CBD, access to genetic resources is subject to prior informed consent (PIC) of the provider country; when in doubt, of that country's government (Art. 15 (1) CBD).[29]

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[28] For an in-depth discussion of the term "genetic resource", see Henne, *Genetische Vielfalt als Ressource: Die Regelung ihrer Nutzung*.

[29] Art. 15 (5) CBD says: "Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party."

In some cases it may also be necessary to obtain a similar prior informed consent from other stakeholders. This applies especially if traditional knowledge of local or indigenous communities could be involved. The procedure for obtaining this type of PIC is usually governed by national legislation.

8. Mutually agreed terms (MAT)

Furthermore, this access is to be governed by a contract under mutually agreed terms (MAT) (Art. 15 (4) CBD).[30]
This means that the parties should negotiate with each other to set the terms and conditions of the access agreement. The primary reason is to keep states from unilaterally dictating terms and conditions. However, the CBD does not give details on the procedure or the format.

[30] Art. 15 (4) CBD says: “Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.”

Annex II: Important Links

Topic	**Web page**
Access and Benefit Sharing Competent National Authorities (*ABS National Focal Points*)	http://www.cbd.int/doc/lists/nfp-abs-cna.pdf
Access and Benefit Sharing to Genetic Resources	General website: http://www.cbd.int/abs/ International Regime on Access and Benefit Sharing http://www.cbd.int/abs/regime.shtml
Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization (*Bonn Guidelines*)	General website: http://www.cbd.int/abs/bonn.shtml Official Text (Decision VI/24): http://www.cbd.int/decisions/?dec=VI/24
Clearing House Mechanism of the CBD Mission	http://www.cbd.int/chm/
Convention on Biological Diversity (*CBD*)	General website: http://www.cbd.int/ Official Text of the Convention: http://www.cbd.int/convention/convention.shtml Parties of the Convention: http://www.cbd.int/convention/parties/
International Treaty on Plant Genetic Resources for Food and Agriculture (*FAO Treaty*)	General website: http://www.planttreaty.org/index_en.htm Official Text of the Treaty http://www.planttreaty.org/texts_en.htm
Royal Botanic Gardens Kew	General website: http://www.kew.org/ Recommended Publications “The CBD for Botanists: An introduction to the Convention on Biological Diversity for people working with botanical collections” www.rbgkew.org.uk/data/cbdbotanists.html
Swiss Academy of Science	General website: http://abs.scnat.ch/ Recommended Publication “Access and Benefit-Sharing – Good practice for academic research on genetic resources” http://www.iisd.org/pdf/2006/abs_swiss_abs_good_practice.pdf
The International Plant Exchange Network (IPEN) - An exchange system for botanic gardens for non-commercial exchange of plant material, based on the CBD	General website: http://www.bgci.org/abs/ipen/

World Intellectual Property Organization (WIPO)	General website: http://www.wipo.int/portal/index.html.en Genetic Resources http://www.wipo.int/tk/en/genetic/ Database of biodiversity-related Access and Benefit-Sharing Agreements: http://www.wipo.int/tk/en/databases/contracts/index.html